ALASKA LEGISLATURE 1902
HOUSE and SENATE FINANCE COMMITTEE FILES, 1999 - 2000

Date	Benchmark Event
1/6/99	Draft review of SANTA study completed. Report delivered at January 7th meeting.
1/7/99	First day of meeting in Anchorage. Reviews presented to contractors and discussed.
1/8/99	Second day of meeting in Anchorage. Interstate analysis presented and discussed. Monthly report presented. Planning for round two studies took place.
1/31/99	Monthly report accompanied transfer of interstate data to ADA .
2/26/99	Final reports on all reviewed studies and report of interstate analysis sent to ADA .
3/10/99	Final report sent to ADA .

EXECUTIVE SUMMARY:

ALASKA ALOCHOL SAFETY ACTION PROGRAM
ICHS Efficacy Study Report

Completed for:
The Division of Alcoholism and Drug Abuse
Department of Health and Social Services

Completed by:
Institute for Circumpolar Health Studies
University of Alaska Anchorage

July, 1999

Executive Summary

Alaska's Alcohol Safety Action Program (ASAP) is based on a national model that seeks to reduce the frequency of alcohol-related traffic accidents through early identification of problem-drinkers and the initiation of appropriate interventions to deter alcohol-related drinking behavior.

The Institute for Circumpolar Health Studies assisted the state of Alaska Division of Alcoholism and Drug Abuse to update data which measures the effectiveness of the ASAP program in reducing the number of re-offenses of alcohol-related offenders. It is important to note that 65 to 66 percent of the client population included in this study did not have a recorded re-offence of any kind within three years of the first DWI offense. This report, as directed by the Division of Alcoholism and Drug Abuse Services, is intended to gain further insight into the adjudication and treatment characteristics of the 34 to 35 percent of the cases that did re-offend.

This descriptive study intended to first collect and merge alcohol offender and treatment data from selected ASAP locations throughout Alaska in order to gain an understanding of the arrest, adjudication, intake, and treatment processes across the state. Second, the study evaluated ASAP client characteristics within populated and urban areas and compared the data to the earlier studies of Kelso (1980) and Araji (1994). Third, the study evaluated the data to determine differences across the selected ASAP sites. Fourth, the study assessed and identified significant determinants for becoming a re-offender. Fifth, the length of time for an ASAP client to re-offend and the variables associated with moderating that time was evaluated. Finally, recommendations were provided regarding intake data protocol enhancement, process improvement strategies, and identification of the *high-risk* problem drinker.

The recommendations include:

- *Evaluate and redesign (possibly simplify) intake processes and data collection protocols by specifying common practices and identifying required data fields.*
- Evaluate the issues and characteristics (e.g. socioeconomic, cultural, judicial, treatment environment, etc) that delineate the differences between the four ASAP sites, and modify intervention and treatment processes that are consistent with the community environments.
- Initiate process improvement activities to evaluate and redesign the ASAP client activities and functions that take place during the times from arrest to conviction and conviction to assignment. Include law enforcement, courts, ASAP, and treatment providers in the process improvement and redesign efforts.
- *Establish a* high-risk *ASAP client profile and redesign the identification, adjudication, intake, and treatment processes to target this population and then evaluate the efficacy of the modifications.*
- Develop and refine predicative models that can be used by ASAP staff in the field that will facilitate the identification of *high-risk* clients as early as possible in the arrest, conviction, assignment and treatment process.

EXECUTIVE SUMMARY:

CHEMICAL DEPENDENCY TREATMENT OUTCOME STUDY

(NEW STANDARDS REPORT)

Completed for:
The Division of Alcoholism and Drug Abuse
Department of Health and Social Services

Completed by:
New Standard, Inc.

December, 1998

Executive Summary

Results from a study of Alaska's chemical dependency treatment programs show that the state's efforts are succeeding on several fronts. Follow-up interviews with participants in both inpatient and outpatient treatment programs indicate that, after one year, arrests and hospitalization decreased, while participants' employment rates and work attendance increased.

The Alaska Division of Alcoholism and Drug Abuse commissioned the treatment outcome study to measure the effectiveness of publicly funded residential and outpatient treatment programs. Beginning in February 1994, the study surveyed 1024 residential/step-down patients and 510 outpatients who consented to assessments at admission, discharge, and six and 12 months after admission to treatment. The findings were collected by New Standards Inc., a Minnesota-based authority in studying treatment programs.

The study will provide information to help policymakers design the best treatment and after-care programs for Alaskans.

The outcome study found:

- Of Alaskan patients surveyed, 56 percent of those in outpatient programs abstained from alcohol for one year after treatment, compared to 42 percent of residential patients. Outpatients in the study received an average of 59 hours of care, while patients in residential programs received an average of 39 days of inpatient care.

- The study also found there is a strong association between abstinence rates and post-treatment levels of care and peer support groups like Alcoholics Anonymous. For 75 percent of residential patients, formal aftercare taken for a year resulted in a year of sobriety. Formal aftercare during the first six months appears to have the strongest impact on recovery among outpatients, with 71 to 77 percent reporting sobriety.

- Both residential and outpatient program participants reported substantial decreases in legal problems one year posttreatment. Criminal arrests, traffic arrests and motor vehicle accidents dropped. This yields overall societal benefits as a result of chemical dependency treatment by easing demands on already overburdened legal and insurance systems.

- Documented reductions in hospitalizations and emergency care and outpatient care for chemical dependency program patients support the notion that, following treatment there is a shifting away from costly hospital and emergency room "crisis" or urgent care, toward more timely and appropriate preventive or routine outpatient treatment.

- Employment rates changed dramatically from pretreatment through one year after treatment. Full-time employment increased from 30 percent before treatment to 45 percent at 12 months. Conversely, unemployment rates dropped from 45 percent to 24 percent.

- Both residential and outpatients reported significant reductions in tardiness and missing work. Outpatients in particular reported fewer problems with supervisors and fewer mistakes on the job.

- A significant number of patients surveyed reported sexual and physical abuse; 10 percent of the residential patients and 8 percent of the outpatients indicated incest by a male relative. Twenty-eight percent of the outpatients and 29 percent of the residential patients reported physical abuse prior to age 18.

An Interstate Substance Abuse Indicator Chartbook

Alaska

By

William E. McAuliffe, Ph.D.
Richard LaBrie, Ed.D.
Ryan Woodworth, B.A.

National Technical Center for Substance Abuse Needs Assessment
North Charles Research and Planning Group

July 7, 1999

Table of Contents

Executive Summary

This report describes the results of an analysis of interstate indicators to determine how states compare with each other with regard to alcohol and controlled drug problems. While including all states in the analyses, the study focused especially on nine states with which North Charles is working: Alaska, Colorado, Montana, Nebraska, Nevada, North Dakota, Rhode Island, South Carolina, and Virginia. This interstate investigation is important because substance abuse and the substance abuse treatment system are partially national in scope and partially unique to each state and its region.

The study employed existing substance abuse indicator data gathered from national sources. We selected only those variables which had high face validity, reliability, and evidence of construct validity. To summarize these data, we created two composites: the Drug Problem Index (DPI) and the Alcohol Problem Index (API) (McAuliffe et al. 1999a, b). These composite indexes included state rates of controlled drug- and alcohol-related deaths, arrests, and treatment clients in the years 1991 to 1993–the most recent years for which data were available on all indicators when we conducted the index research upon which the findings depend. The report describes more recent information when available. We also analyzed substance abuse problem indicators that could not be included in the composite indexes but nevertheless help support and amplify the study's conclusions.

Analysis of the DPI and API revealed that states varied widely in the extent of their substance abuse problems, and that the severity of alcohol and drug related problems were not strongly correlated. Consequently, we analyzed the indicators separately.

According to the Drug Problem Index, the states with the most severe controlled drug-related index problems were in the Northeast and the West Coast, while the states with the least severe drug problems were in the Northern Plains and Rockies. New York and California had the most severe drug problems. Rhode Island and Nevada were also among the states most plagued by drug abuse, ranking 5th and 7th respectively. Colorado ranked 15th in the country, while the drug problems in Virginia, South Carolina and Nebraska ranked slightly below average--29th, 34th and 37th most severe. Among the states with the lowest rates of controlled-drug-related problems were Alaska (ranked 40th), Montana (47th), and North Dakota (50th). Nevada was one of the states that had relatively few drug treatment admissions compared to drug-related deaths and arrests.

According to the Alcohol Problem Index (API), the states with the most severe alcohol-related index problems (deaths with explicit mention of alcohol, arrests for drunk driving, and alcohol-only treatment clients) were in the West: New Mexico, Colorado, and California. Alaska was also near the top of the list, ranked 5th in the country. Montana was in the top third of the states, ranked 13th, while Nebraska and North Dakota were in the upper half of the distribution, ranked 19th and 20th respectively. Nevada's alcohol problems were in the middle of the distribution, ranked 27th most severe. Rhode Island's alcohol problems ranked 32nd and Virginia's ranked 33rd most severe nationally. Residents of Hawaii had the least severe alcohol problems in the country.

In some states there were severe controlled drug problems, but relatively moderate alcohol related problems; in other states the reverse was true. The states with the worst combination of relative problems stemming from alcohol use and controlled drug use were California, New Mexico, North Carolina, Colorado, Oregon, and Nevada. Whereas California and Nevada had relatively severe drug problems, the other four states had more severe alcohol problems. Located in the upper middle of the range for combined substance abuse problems, South Carolina, Alaska, and Montana had more severe alcohol problems than controlled drug problems. Rhode Island was further down in the range of combined problems, and it had more severe controlled drug problems than alcohol problems. Compared to Rhode Island, Virginia's alcohol and controlled drug problems ranked lower in the range and were more evenly balanced between alcohol and controlled drugs. North Dakota had moderately severe relative alcohol problems, while its controlled drug problems ranked near the bottom nationally. North Dakota ranked among the states with the least severe combined substance abuse problems: Hawaii, Utah, Pennsylvania, West Virginia, Alabama, Indiana, and Iowa.

These rankings helped explain some of the differences among the states in the percentage of their citizens who received substance abuse treatment. States with the highest levels of need, such as Colorado, were most likely to have the highest levels of services as well. South Carolina had a moderately high level of treatment services to match its moderately high level of treatment needs. There was less correspondence between need and utilization in Nevada, Montana, and Alaska. Nevada had an average level of services utilization, even though it had one of the highest combined levels of alcohol and controlled drug treatment needs. The other states with the greatest gaps between needs and services appeared to be in Mississippi and Georgia. Montana and Alaska were also in the group of relatively underserved states, but the gap did not appear to be as great as for some states.

North Dakota stood out as a state with a relatively high level of treatment utilization, despite having a relatively low level of need, especially with regard to drug use disorders. Other states that were above average in the ratio of treatment to need included Rhode Island, Nebraska, and Virginia. Because these favorable statistics are relative to other states, one should not assume that some states were "overserved." Evidence from surveys, that are designed to measure absolute levels of met and unmet need, have routinely found that most states have a substantial amount of unmet demand for services. It is therefore important to confirm these findings for individual states with analyses of state survey data.

Introduction

This report describes the results of a study of how states compare with each other with regard to substance abuse. The analysis focuses on drug- and alcohol-related mortality, arrests, and morbidity statistics. The study also assesses how each State's treatment services per capita compared to the treatment rates in other states, especially those states that have similar substance abuse problems.

The Family of Studies. This investigation is part of the integration of the state treatment needs assessment family of studies. With funding and technical support from the federal Center for Substance Abuse Treatment (CSAT), each state has undertaken a family of studies to assess the extent of its substance abuse problems and to plan the State's response to them. The family of studies seeks to assess the States' treatment service needs, identify gaps in services, and make recommendations for the future resource allocations and modifications of the treatment system's design. The backbone of the family of studies is a telephone survey of the general household population. Supplementary surveys cover the nonhousehold segments of the population. The adult nonhousehold population consists of the homeless, prisoners, and residents of long-term treatment facilities and nursing homes. One key supplementary study uses existing indicator data to supplement the survey data collected in the family of studies. The social indicator data may focus on variations in substance abuse among the State's counties or its cities and towns. A second type of social indicator analysis focuses on differences among states. This report presents the results of the interstate comparisons.

The interstate analysis plays a special role in the family of studies. The interstate study takes a comparative perspective, whereas the other studies in the family of studies focus on the absolute level of a State's treatment service needs and its response to them. The comparative analysis is important because substance abuse and the substance abuse treatment system are partially national in scope and partially unique to each state and its region. This study type helps state officials assess how the severity and nature of the state's substance abuse problems compare to the substance abuse problems of other states in the region and in other parts of the country. The study focuses on a special subset of states with which the North Charles Research and Planning Group is working. In the report, we refer to this group as the "Focus States."

Fortunately, the Focus States represent a broad range of alcohol and controlled drug problems. As this report will show, in some states the primary substance abuse concern stems from illicit drug use disorders, whereas in other states the primary concern stems from alcohol use disorders. Each state's response to its unique substance use disorder problem depends partly on its own history, policy perspectives, and priorities. A state's response also depends partly on national scientific developments, regulations, and funding for substance abuse services. By examining how a state differs from other states nationally and regionally with regard to both its problems and responses, the study will help reveal each of the Focus States' uniqueness.

Readers should bear in mind that a state's relative status may say surprisingly little about the absolute severity of its substance abuse problems or the state's absolute success in meeting its goals with respect to the supply of substance abuse services. For example, while Rhode Island's alcohol-related traffic arrest and death rates are among the lowest in the country, traffic arrests and deaths are primary causes of arrests and deaths in the State (Buechner 1997). Previous studies have shown that even states which have provided relatively high levels of treatment services may nevertheless have a substantial amount of unmet demand for services (Schlesinger et

al. 1991). Thus, it is essential that the family of studies examines both the relative and the absolute levels of substance abuse problems and services.

Research Methods

This section describes technical aspects of our methodology. Readers may wish to skip to "Drug Abuse Problems" on page 5 and return to this section only if questions arise.

Indicator Selection. Because no "gold standard" exists for measuring the severity of substance abuse problems among states, our methodology emphasized validity during both the selection of indicators and the construction and assessment of composite indexes. We employed theory and empirical evidence of validity to select substantially reliable and valid component variables. Inevitably, all measurement hinges on theoretical assumptions regarding the correspondence between the candidate measure(s) and the concept of interest. Accordingly, for our key indexes, we selected only variables that we termed "drug- or alcohol-defined" or "drug- or alcohol-coded," where the original data collection process clearly identified the presence of alcohol or drug abuse or the most closely associated problem behaviors. For example, in our index we included only "drug-defined arrests" (possession and sales, where there usually is a tested sample of drugs) rather than all arrests or even the categories of arrests (e.g., prostitution or burglary) in which large percentages of arrestees are drug users. After selecting only indicators that possessed high "face" validity, we reviewed published literature in order to retain only indicators for which there was also empirical evidence of validity (see below and McAuliffe et al. 1999a, b for a review of the evidence).

To summarize the information in the several selected indicators, we created two composite indexes: The Drug Problem Index (DPI) and the Alcohol Problem Index (API) (McAuliffe et al. 1999a, b). These composite indexes included measures of deaths, arrests and treatment clients in the years 1991 to 1993. The specific indicators were the rates per 100,000 of deaths coded as having an explicit mention of alcohol or controlled drugs (deaths coded with at least one multiple cause from a list of diagnoses with an explicit mention of alcohol or other drugs), drug abuse violation arrests (possession or sale of controlled drugs) and driving under the influence (DUI) arrests, and drug-only and alcohol-only treatment clients. We selected these three components because they were available for all states (McAuliffe et al. 1999a, b)[1] and because there were parallel indicators for both alcohol and controlled drugs. Having two sets of parallel measures was highly useful from a methodological perspective. We assessed the reliability and validity of each of the composite indexes and found them to meet stringent scientific measurement standards. McAuliffe et al. (1999a, b) have presented a detailed description of the construction and validation of these indexes.

Treatment. Of the two available sources of national treatment data, we decided to use the National Drug and Alcohol Treatment Unit Survey (NDATUS) client measure instead of the

---

[1]As explained in the Appendix, three states had missing data for one year of arrest statistics. These observations were estimated from the other two years of data for those states.

National Association of State Alcohol and Drug Abuse Directors, Inc. (NASADAD) admissions statistics because the NDATUS survey counts individuals in treatment on a single day in both public and private facilities, whereas the NASADAD measure counts annual admissions in only publicly funded facilities. Since the same individuals may be admitted multiple times, admissions may overestimate the extent of the problem in some states. Also, the NASADAD data were missing for Oregon (1992), Washington (1991, 1992), and Wyoming (1991-93).

Mortality. As our alcohol mortality indicator, we used a composite of cases having diagnoses with explicit mentions of alcohol as a cause of death rather than a much longer list that also included many causes indirectly related to alcohol use. We chose this direct-cause or "Explicit Mention" mortality measure on theoretical grounds because we felt that it captures a sufficiently broad spectrum of cases, but is not too broad. This choice was consistent with our preference for theoretically unambiguous measures.

Using data from the National Institute on Alcoholism and Alcohol Abuse (NIAAA) *County Alcohol Problem Indicators* (1994, p. 4), we conducted methodological and empirical analyses of this choice. We examined two candidate measures from the NIAAA volume: 1) total alcohol mortality that included "all alcohol-related causes of death," and 2) one of its three constituents, "causes of death with explicit mention of alcohol." In this analysis, we focused on our concern that the total measure was too broad because its other two components were far too inclusive. In particular, the "other alcohol-related diseases" (Other Diseases for short) component included all deaths due to stroke, high blood pressure, diabetes, tuberculosis, pneumonia and influenza, and a number of cancers. According to the "alcohol-attributable fractions" (AAFs) presented in the NIAAA volume, these deaths were due primarily to causes besides alcohol. Although the counts were weighted by the AAFs, the weights are constant over states. Thus, the values for each state are simply a constant fraction of a composite of deaths primarily due mainly to causes other than alcohol. As a result, we hypothesized that the interstate variance of an indicator based on the Other Diseases component is more likely to reflect general health rather than just the health effects of alcohol use disorders. The third component of total alcohol-related mortality included "other alcohol-related injuries and adverse effects" (Other Injuries). We hypothesized that it may suffer from the same shortcoming as the Other Diseases data, although perhaps somewhat less so because the AAFs are generally higher in the Other Injuries measure. In the country as a whole and every state, the combination of the Other Disease and Other Injuries components far outnumbered the Explicit Mention component. If our concerns were correct, the total mortality measure would not be as useful as the Explicit Mentions measure for our purpose of estimating the relative prevalence of alcohol use disorders among states.

Analysis of the NIAAA data seemed to confirm our concerns. The Other Diseases alcohol mortality rate correlated negatively (-.22) with the Explicit Mentions rate and with the Other Injuries rate (-.14). The Other Diseases component also correlated negatively with DUI arrest rates (-.50, $p<.05$), NDATUS alcohol-only client rate (-.17), and motor vehicle mortality in which the blood alcohol level exceeded .10 (-.23). Because the Other Injuries rate included all traffic accidents, we were not surprised that it correlated strongly positively with the DUI and traffic accident variables, but it had a low, negative correlation (-.03) with the NDATUS alcohol-only client rate. The Explicit Mentions variable correlated positively with all of these variables (.23 with DUIs, .48 with NDATUS alcohol clients, .18 with traffic accidents with BAC greater than .10, and .37, $p<.05$, with Other Injuries mortality), except the Other Diseases measure. Age-

adjustments had little effect on these measures or relationships. These empirical results suggested that the Explicit Mentions mortality indicator was our better choice.

Uniform Crime Report (UCR) Arrest Statistics. For the DPI, we used all arrests for drug abuse violations (possession and sales/manufacturing), but for the API we focused on only DUI arrests. We selected the State DUI arrest rate from the available UCR alcohol-defined arrest statistics because DUI rates are associated with problem drinking and severe consequences of drinking, including motor vehicle accidents and fatalities (Borges and Hansen 1993; Yu and Williford 1993; Centers for Disease Control and Prevention (CDC) 1994b; Kennedy et al. 1996; Mancino et al. 1996; Duncan 1997). The exact proportion of DUI offenders who have an alcohol use disorders is difficult to measure due to underreporting by arrestees and differences in diagnostic methods used in published studies (Chalmers et al. 1993; Lapham et al. 1995; Chang and Lapham 1996). Lapham and colleagues (1995) found that the rate of alcohol-related problems among drunk drivers varied depending on how one measured them. Using the Michigan Alcoholism Screening Test (MAST), these researchers placed 48 percent of male DUI offenders and 37 percent of female DUI offenders in the "alcoholic" category. The same study found that when substance abuse counselors assigned the offenders a DSM-III-R diagnosis (American Psychiatric Association 1987), 21 percent received a diagnosis of alcohol abuse and 19 percent received a diagnosis of alcohol dependence. We decided not to use arrests for drunkenness in the index because several States did not have this category of arrest, and they record this offense as disorderly conduct or as a liquor law violation (Sterne et al. 1967; Royce 1981, p. 310). We also did not use arrests for disorderly conduct in the API because disorderly conduct encompasses more than alcohol abuse problems, and we decided against using liquor law violations because they reflected retailers and other individuals that may not necessarily reflect an alcohol use disorder (e.g., bootlegging or furnishing liquor to a minor).

Data Sources. This study employs existing substance abuse indicator data that the study team gathered from a variety of sources (see Appendix). The sources of data for the interstate analysis differ in some respects from the sources for intrastate indicator analyses. In particular, we have used data available from national sources rather than local sources in order to achieve greater comparability (e.g., we used arrest statistics from the FBI rather than from each state's Uniform Crime Reports offices). Before using the nationally obtained data, we examined each data set for the presence of outliers. An example of an outlier would be an annual rate that is as much as ten times higher than the previous years or subsequent years, especially when the annual change is not consistent with previous or subsequent changes in the data from other states during the same years. In such cases, we contacted the responsible state or federal agency about the outlying values. If corrected values were available, we used them. As a general protection against undetected or uncorrected random errors, we combined three years of data (1991 to 1993) in order to obtain more reliable composite indicators. Those years were the last three for which all the required data were available when the study team conducted its research on the alcohol and controlled drug indexes (McAuliffe et al. 1999a, b). Also, several key national studies of substance use disorder variations have employed data from those years (Folsom et al. 1996; Burnam et al. 1997). When more recent years were available for individual variables, we have used them where possible in descriptive analyses. Correlational analyses have shown that the relative position of states does not change very much from year to year (McAuliffe et al. 1999a, b). Consequently, we are confident that the study's basic findings generalize to more recent years.

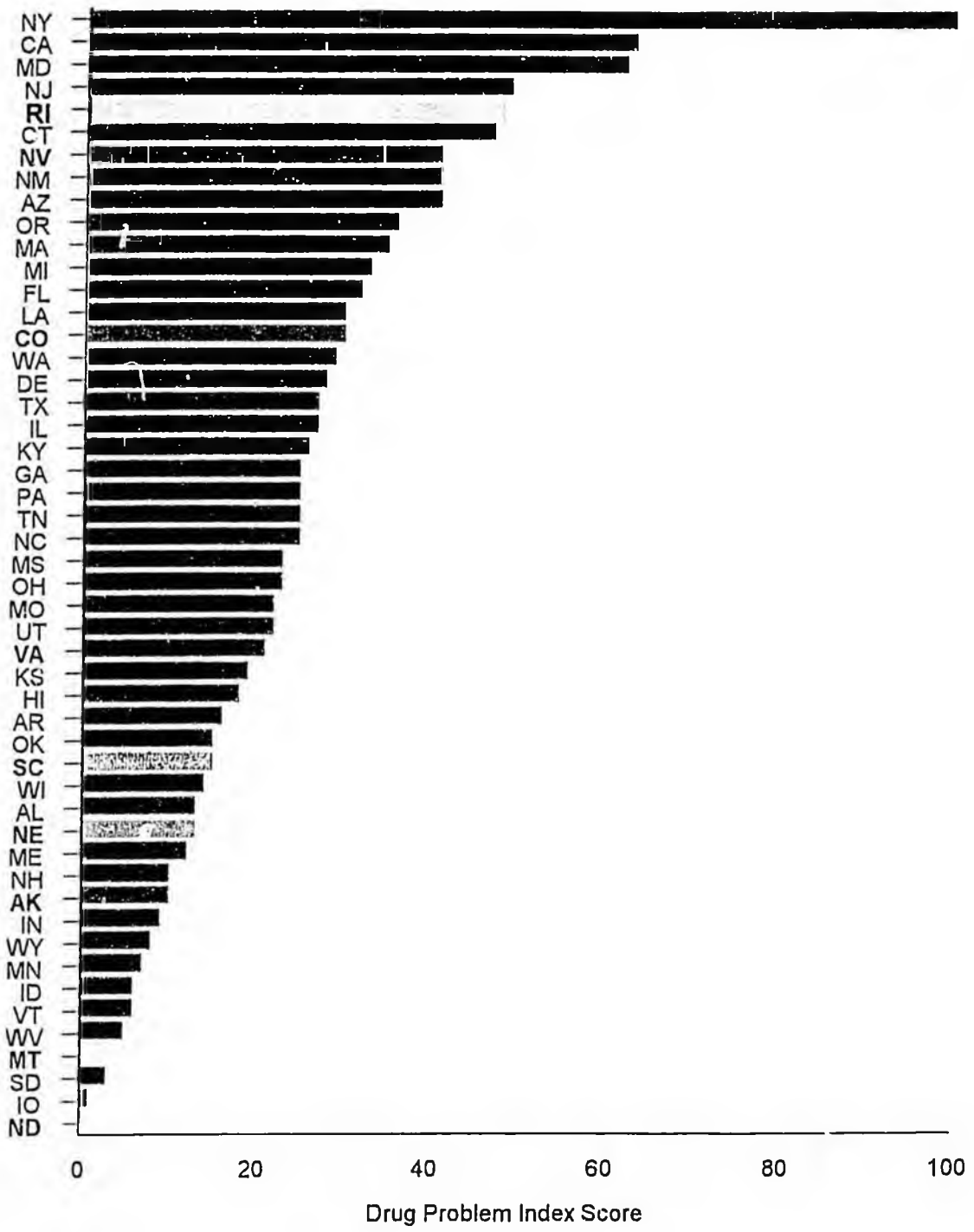
Analysis. When reporting these indicators, we have frequently focused on the comparative nature of the analysis by reporting the State's rank in the country. In all cases, the state with the most severe substance abuse problem is ranked 1st, and the state with the least severe problem is ranked 50th. We have noted when fewer than 50 states provided data for an indicator. For our key alcohol and drug problem indexes, we have presented charts containing data from all states. For less critical confirmatory indicators, we have attempted to reduce data "overload" in the graphs by presenting data for states with the highest and lowest values, the median value (i.e., 50th percentile, which is useful as a measure of central tendency for skewed distributions), and the nine Focus States. Because these states are heterogeneous with regard to substance use problems, they provide readers with a picture of the broad range of problems among all states. For comparative purposes, we have also occasionally included other states that are neighbors of the Focus States.

Drug Abuse Problems

Drug Problem Index (DPI). Our graph of the DPI reveals the wide variation among states in problems related to drug use disorders (Figure 1). The states with more severe drug abuse problems were New York, California, Maryland, and New Jersey–all states long known to have acute drug problems. Mississippi and Ohio were in the middle of the DPI distribution, ranking 25th and 26th respectively. North Dakota, Iowa, South Dakota, and Montana had the lowest drug index scores in the country.

The most severe drug problems were found in two clusters: the Northeastern urban states and the West Coast and Southwest (Figure 2). A member of the Northeast cluster, Rhode Island had the 5th most severe drug abuse problem in the nation during 1991 to 1993. Neighboring Connecticut and Massachusetts also had high DPI scores. Nevada (ranked 7th) was part of the West Coast/Southwest high-rate cluster of states, along with California, New Mexico, Arizona, and Oregon. Colorado ranked 15th in the country, just a few DPI points below the cutoff for the states in the most severe quartile. Colorado's DPI was substantially higher than the other plains and mountain states that border it, although Colorado's DPI was lower than New Mexico's. In the middle of the DPI range were Virginia, South Carolina and Nebraska, having the 29th, 34th and 37th most severe drug problems nationally. South Carolina and Virginia ranked lower on the DPI than their neighboring states, while Nebraska, like Colorado, appears to be in a transitional area with neighboring states having both higher and lower rankings. Alaska was one of the states with relatively less severe drug problems (40th). Alaska's DPI score, like Montana's and North Dakota's, reflected its rural nature. Montana and North Dakota are surrounded by states in the lowest quartile on this measure.

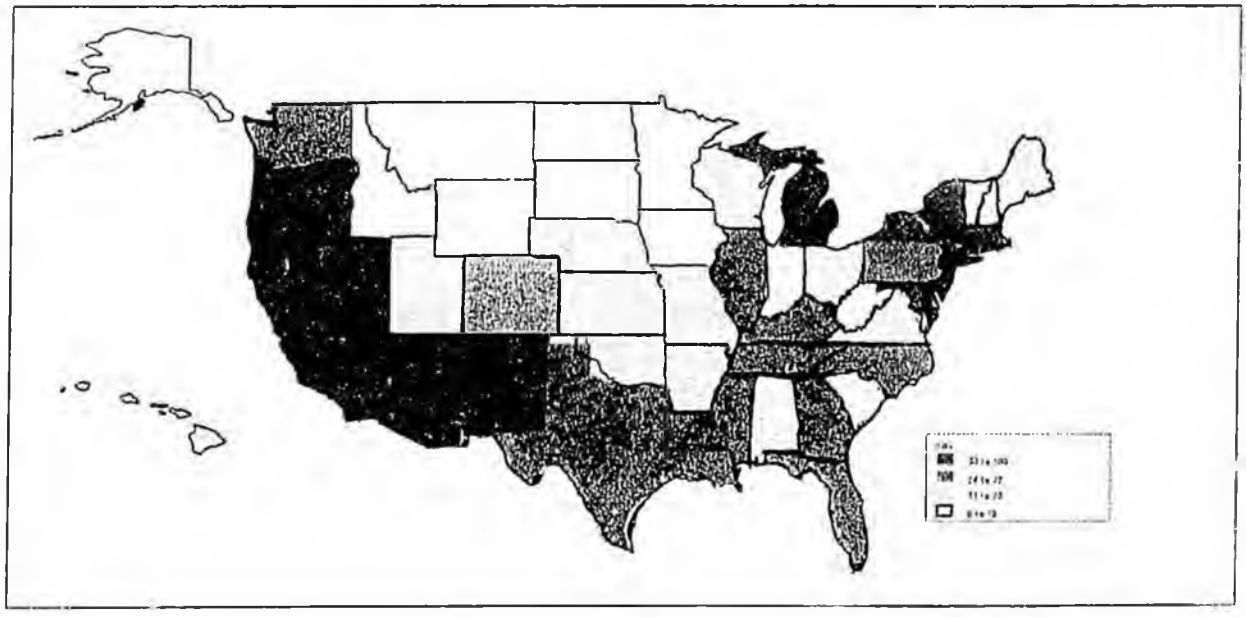
Figure 1. Drug Problem Index, 1991-93



Drug-coded Mortality. A key component of the DPI counted deaths in which at least one of the multiple causes included drug dependence, nondependent drug abuse or accidental poisoning. New York's mean drug-coded mortality in 1991-93 (12 per 100,000) was the highest in the country and was more than 40 times as great as North Dakota's (0.3 per 100,000), which was the lowest. Rhode Island's rate (4.4 per 100,000) ranked seventh in the country. The rate was 4.0 for Nevada (10th), 3.2 for Colorado (15th), 2.0 for South Carolina (23rd), 1.9 for Virginia (25th), 1.5 for Montana (29th), 1.4 for Alaska (31st), and 0.6 for Nebraska (47th).

Drug-defined Arrests. California had the highest drug-defined arrest rate (733 arrests for possession, sale, and manufacturing per 100,000 during 1991 to 1993). Montana had the lowest rate, while North Dakota had the third lowest in the country (57 and 77 per 100,000 respectively). The comparable rates were two to three times higher in Alaska (157; ranked 41st) and South Carolina (163; 40th). In contrast with Rhode Island's high drug mortality rate, its mean arrest rate of 293 per 100,000 was average–25th most serious in the country and slightly higher

Figure 2. Drug Problem Index Scores



than Nebraska's (264; 30th) but lower than Virginia's (299; 24th). Rhode Island's neighboring states, such as New York (675), Connecticut (556), and Massachusetts (412), had substantially higher drug-defined arrest rates. Nevada's drug arrest rate (583) was the fourth highest in the country and was rivaled by no other state's rate in the West except California's.

It is also noteworthy that in low-drug-arrest-rate rural states a majority of the arrests involved marijuana, whereas in high-rate urban states a majority of the arrests involved cocaine and opiates. Nevada was an exception when synthetic narcotics were included with cocaine and opiates. Arrests for sales instead of possession are also far more common in the urban than rural states (GAO 1990, Table VI.9).

Drug Treatment Clients and Admissions. As with drug-coded mortality, New York had the country's highest mean NDATUS drug-only client admission rate (269 per 100,000), while North Dakota had the lowest rate (9 per 100,000). Rhode Island (192 per 100,000) ranked second in the nation behind New York. Comparable rates were 91 for Colorado (11th), 65 for Nevada (17th), 57 for Virginia (20th), 48 for South Carolina (26th), 38 for Nebraska (36th), 30 for Alaska (40th), and 14 for Montana (47th).

NDATUS also reports statistics on clients who were being treated for both drug and alcohol use disorders (Figure 3). In 1993, there appeared to be a trend among states with high rates of clients receiving treatment for drug use only to have relatively low rates of cases with both alcohol and drug use disorders. By contrast, states such as Colorado, North Dakota, Montana, Alaska, Virginia and Nebraska had a substantial percentage of their treatment clients who were receiving treatment for both drugs and alcohol. As we will show later, these states often have high rates of alcohol-related problems.

As was true for the arrest statistics, rural states have higher rates of persons receiving treatment for a marijuana use disorder, whereas urban states have higher rates of persons receiving treatment for heroin use disorders. The states with the largest percentage of marijuana treatment admissions of all drug use disorder admissions were Maine (62%; 1st), North Dakota (55%; 2nd), Idaho (51%; 3rd), and Montana (51%; 4th). Above average percentages on this measure were also evident in Alaska (8th), Colorado (15th), and Nebraska (18th). In the middle were South Carolina, Rhode Island, and Nevada, ranked 30th, 31st , and 33rd respectively on this statistic. At the bottom of the continuum, Massachusetts, New Jersey, Delaware and Georgia had fewer than 10% of their admissions for marijuana treatment.

In contrast with marijuana admissions, the states with the highest percentage of their admissions for heroin and other opiates were New Jersey (55%), Massachusetts (48%), Connecticut (47%), and Rhode Island (47%). In the upper third were Nevada (22%), Colorado (19%), and Virginia (18%). In the middle of the range were Montana (9%) and South Carolina (8%). Those with the lowest percentage of heroin admissions included Alaska (6%), Nebraska (5%), North Dakota (3%), and South Dakota (1%).

States with the highest percentages of cocaine admissions were in the South: North and South Carolina had more than two thirds of their drug admissions for cocaine use disorders (1st and 3rd nationally). North Dakota had the smallest percentage (0.3%) in the country, and Montana was among the states with the small percentages (46th out of 49). Colorado was at the median (25th), and Nevada was slightly below that (27th).

Figure 3. Drug Treatment Clients

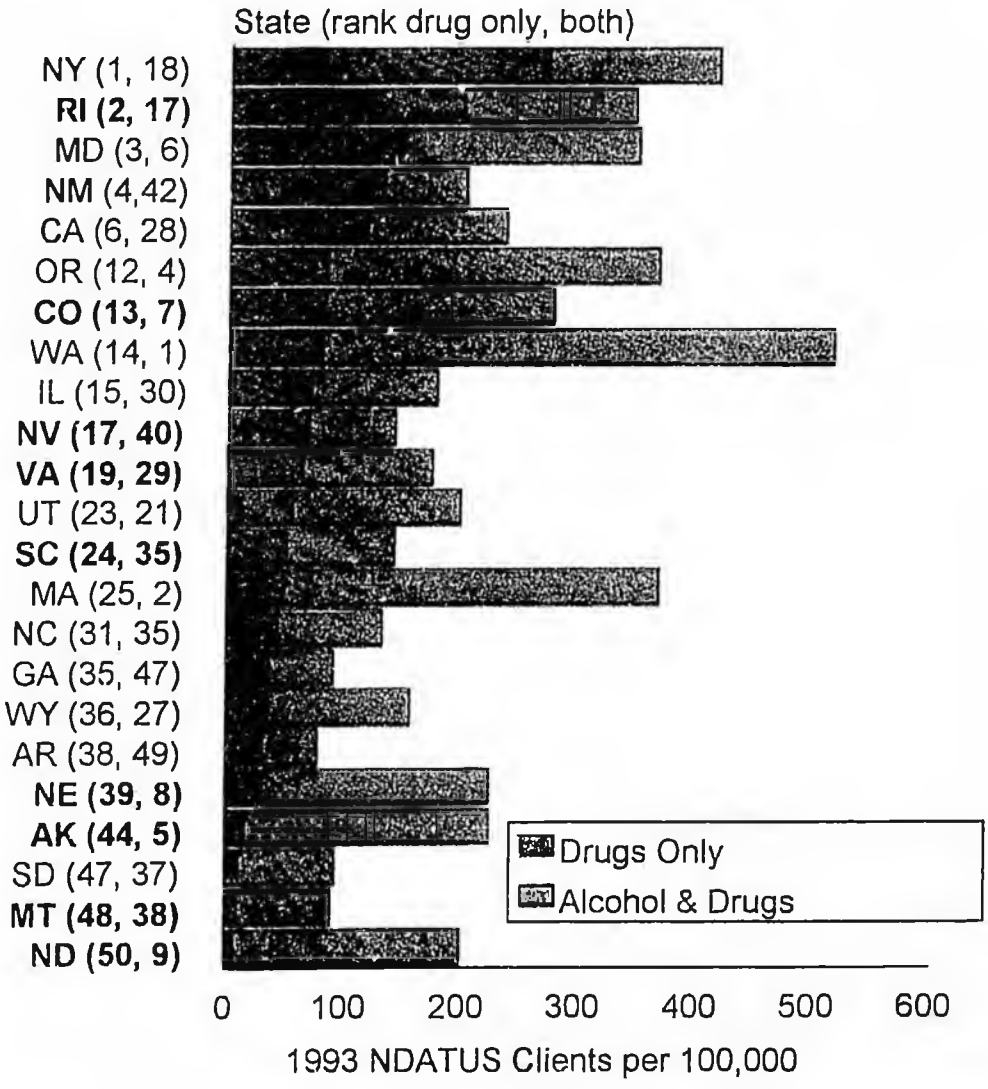
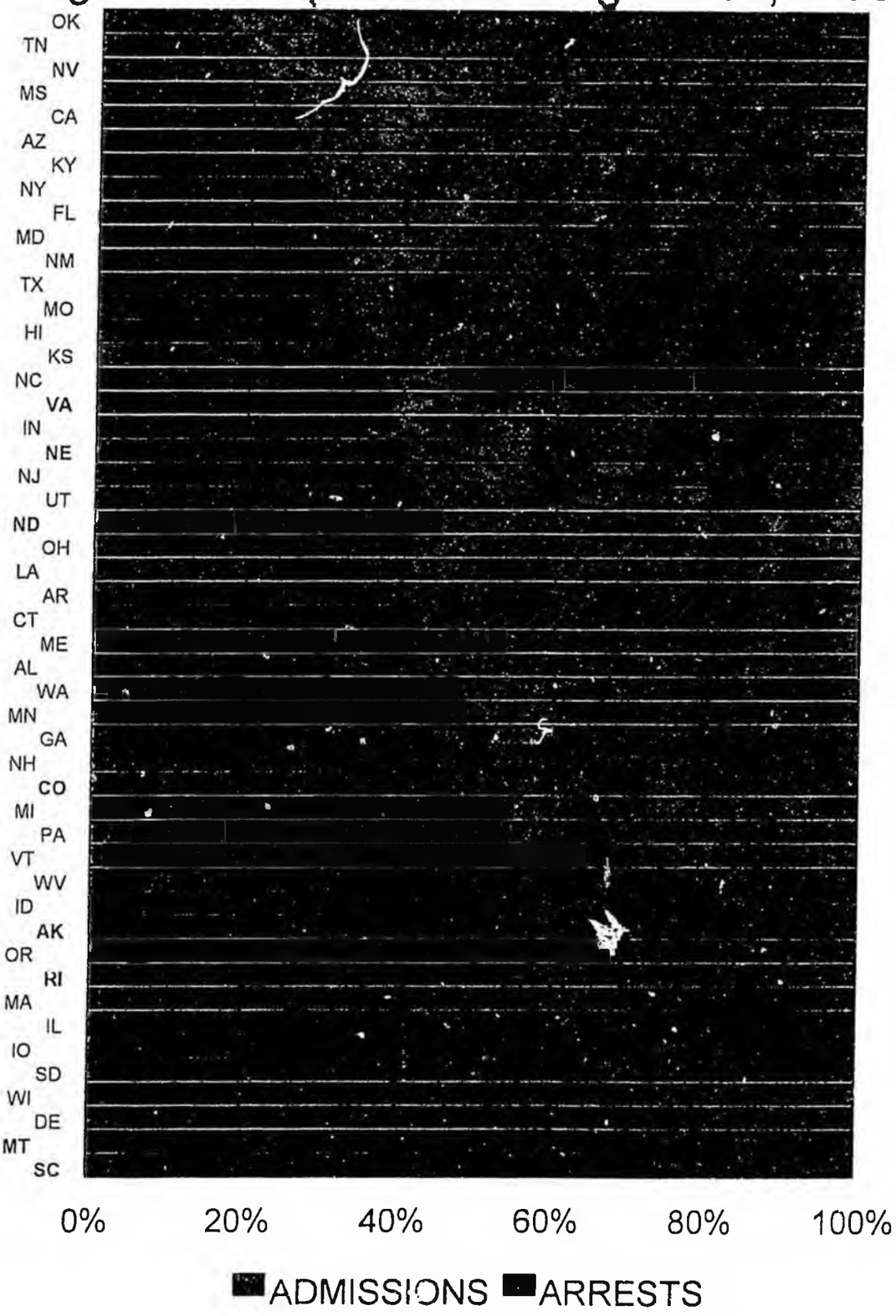


Figure 4. Responses to Drug Abuse, 1993



States varied in the nature of their responses to drug dependence (see Figure 4). Whereas some states seem to emphasize a treatment-services approach, other states seem to stress a criminal-justice approach. To construct Figure 4, we summed UCR drug-defined arrests per 100,000 and the number of NASADAD drug treatment admissions per 100,000 for 1993; the figure describes the proportion of arrests and admissions for each state sum. States at the bottom of the graph have more admissions than arrests. South Carolina and Montana had the largest percentage of treatment admissions. Comparing the ratio of NASADAD drug-related admissions to UCR drug-defined arrests, we found that South Carolina had 2.8 admissions to each arrest and Montana had a ratio of 2.6 admissions for each arrest.[2] Rhode Island (1.3), and Alaska (1.3) were also among the fourteen states that had more NASADAD drug treatment admissions than drug-defined arrests in 1993. Colorado (0.9) had 49 fewer admissions than arrests (295 versus 344), while North Dakota (0.7), Nebraska (0.7), and Virginia (0.6) had approximately two admissions for every three arrests. Nevada (0.26) had one drug admission for every four drug arrests, ranking it 47th out of 49 states. One possible explanation for the low ratio of treatment admissions to arrests is that tourists who use controlled drugs may be arrested but are unlikely to seek treatment in the state. Also, Nevada ranked 34th in the per capita funds for drug abuse treatment allocated to the state from the Substance Abuse Prevention and Treatment Block Grant formula. Oklahoma, Tennessee, Mississippi, California, and Arizona also had many more drug arrests than drug treatment admissions.

The magnitude of the differences among the states in the ratio of admissions to arrests suggests the need for further needs assessment research and possibly new programming in the states with relatively few treatment admissions compared to arrests. Responding to concerns about the growing number of drug arrests, Arizona initiated a diversion program in 1997 that sends all nonviolent first- and second-time drug offenders to treatment rather than prison (Substance Abuse Funding News 1999). In close coordination with the State's probation department, the program seeks to reduce costs and reduce recidivism.

Another perspective results when the number of drug treatment admissions is compared to the number of deaths associated with drug dependence. A major difference between deaths and arrests appears to be the impact of marijuana. Few drug deaths result from marijuana use disorders, but arrests are common. Rural states such as South and North Dakota (1st and 3rd respectively), Nebraska (4th), and Alaska (5th) had the highest ratios of treatment admissions to drug deaths. At the other end of the spectrum, states such as New Mexico, New York and Nevada had the lowest ratios in the country (49 states had data). This finding, as well as the disease and crime statistics reported below, reinforces the importance of Nevada's further research on its need for drug treatment services. In middle of the range on this measure of admissions per drug-coded death were Virginia (28th), Rhode Island (29th), South Carolina (30th), Colorado (31st), and Montana (33rd).

Surveys of Drug Abuse. There were surprisingly little available survey data on drug dependence among the 50 states. The National Household Survey on Drug Abuse (NHSDA)

---

[2]South Carolina's UCR drug-defined arrests declined sharply from 1991 (13,701) to 1992 (1,223), and then increased in 1993 (2,415). These figures should therefore be interpreted only in conjunction with confirmation from other data sources.

currently plans to expand its sample to include all states. In a recent study, Folsom et al. (1996) estimated state-level drug dependence rates for the 26 states that were most represented in the NHSDA's sample during 1991 to 1993. Each of the 26 states contributed at least 300 cases to the three year sample. The model used NHSDA data, social indicator data (deaths, arrests), and census statistics. Unfortunately, among the states upon which this report focuses, only Virginia and South Carolina were covered sufficiently by the NHSDA during 1991 to 1993 in order to be included in the study. Both states were estimated to have past-year drug dependence rates (1.18% for South Carolina and 1.11% for Virginia) that were below the national estimate (1.24%). For sake of comparison, we should note that Virginia's DPI ranked slightly higher than South Carolina's (29th and 34th respectively). Oregon had the highest Folsom drug dependence estimate (1.99%), while West Virginia had the lowest (0.84%).

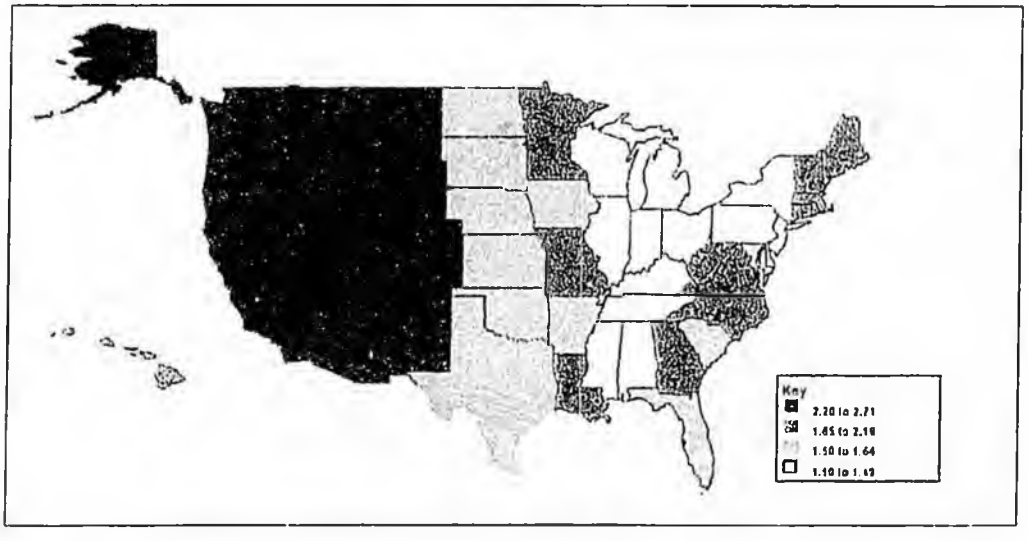
Although based on some of the same indicator data, the DPI and the Folsom et al. drug dependence estimates were not significantly correlated with each other (McAuliffe et al. 1999a). One key difference between the DPI and the Folsom et al. estimates is that the NHSDA's drug dependence measurements, upon which the Folsom et al. estimates depend most, overwhelmingly reflect marijuana use disorders rather than cocaine and opiate use disorders. For example, in our own analyses of the 1995 NHSDA, we found that there were 409 persons who met criteria for current dependence on marijuana and 94 who met criteria for cocaine dependence. The comparable statistics for 1996 were 456 and 104 respectively. In 1995 and 1996, about half as many subjects reported using heroin in the last year as were dependent on cocaine in the last year. Thus, the NHSDA estimates are likely to be good predictors of treatment needs only in rural states, where treatment for marijuana abuse is predominant.

In the absence of adequate survey data for half of the states, Burnam et al. (1997) recently developed synthetic estimates of the drug dependence rates in all states (Figure 5). In this effort, Burnam et al. developed a statistical model of 1991 to 1993 NHSDA data. The statistical model related demographic characteristics to drug dependence as measured by the "Rand Criteria," an approximation of the dependence criteria of the American Psychiatric Association's Diagnostic and Statistical Manual, 3rd edition revised (DSM-III-R). The authors applied this equation to census statistics to estimate the percentage of people in each state that were drug dependent.

Unfortunately, the resulting synthetic state drug dependence estimates failed to correlate with the DPI estimates (r=-.03) (see McAuliffe et al. 1999a), and many of the Rand synthetic drug dependence estimates appeared to be somewhat implausible (e.g., Wyoming ranked 6th, Montana ranked 9th, Utah ranked 11th, and Vermont ranked 13th in the country, whereas New York ranked 46th, Illinois ranked 47th, and New Jersey ranked 49th). Moreover, comparison of Figures 2 and 5 reveals that the regional patterns of drug use disorders differ markedly depending on whether the DPI or the Rand estimates are used. Whereas the DPI identified the coasts as the major areas where drug problems are found, the Rand estimates suggest that all of the states with severe drug problems are in the West (including Alaska, Nevada, Montana, and Colorado), even though most of those states did not contribute an average of 100 cases to the NHSDA sample in each of the three years. Also, the most severe drug problems exist only in the West. Similarly, the inadequately sampled New England states were also estimated to have above average drug dependence rates. Because of the dominance of marijuana in the NHSDA data, the obvious impact of regional factors on the synthetic estimates, and the extrapolation required for states that are not well represented in the NHSDA sample, these estimates must be interpreted with care.

According to the synthetic estimates, the rates of drug dependence in the Focus States were highest for Alaska (2.71%), Nevada (2.57%), and Colorado (2.50)%. Montana's estimate was 2.30%. Rhode Island's rate of drug dependence was 1.79%, ranking it 16th in the country. Although Rhode Island's ranking was lower than it was for the other drug indicators reviewed so

Figure 5. Synthetic Estimates of Percent of Population Meeting RAND Criteria for Drug Dependence



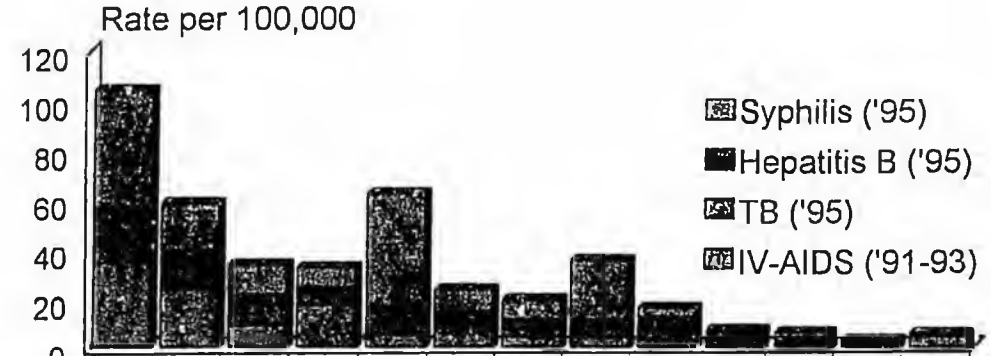
far, the Rand estimate of the percentage of drug dependent persons in Rhode Island is in the upper third of all states with regard to severity and is one of the highest of any East Coast state according to this measure. Virginia's synthetic estimate ranked above average (22nd), whereas South Carolina's ranked just below average (27th). Nebraska and North Dakota were ranked 36th and 37th respectively.

Drug-related Diseases. States with high rates of drug use disorders, especially with regard

to drugs such as heroin, cocaine and other injectable drugs and drugs that are commonly exchanged for sex, should be at risk of outbreaks of the contagious diseases associated with drug abuse. Our correlational analyses showed that the state mean IV-AIDS case rate for 1991 to 1993 correlated strongly with the DPI and each of its components (McAuliffe et al. 1999a). The DPI was also significantly correlated with tuberculosis, syphilis, and hepatitis B. Although only a portion of the infections due to these three diseases stem from drug use, they may be used as a gauge of the public health impact of drug dependence on states.

Between 1991 and 1993, the mean rate of injection-related AIDS cases was highest in New York, New Jersey, Connecticut, and Maryland; it was lowest in Montana (44th), North

Figure 6. Contagious Diseases Associated with Drug Abuse



	NY (1)	NJ (2)	NV (8)	CT (3)	SC (17)	RI (10)	CO (18)	VA (20)	WA (24)	MT (44)	NE (42)	ND (45)	SD (47)
Syphilis ('95)	48	19	12	8	46	9	8	24	4	1	2	0	1
Hepatitis B ('95)	5	5	4	3	2	1	4	2	4	3	2	1	0.3
TB ('95)	17	11	8	4	9	5	3	5	5	2	1	1	4
IV-AIDS ('91-93)	34	23	9	17	5	8	4	4	3	1	1	1	0.4

State (rank IV-AIDS)

Dakota (45th), Idaho 46th), and South Dakota (47th) (Figure 6). Alaska was not one of the 47 states for which IV-AIDS data were available. For reasons that are not entirely understood by the scientific community, the risk of AIDS has been lower in California than one might expect. California's rate ranked 11th in the country, even though California's DPI was 2nd highest in the country. Nevada's rate was eighth highest in the country and the highest rate in the West. Rhode Island's rate ranked 10th most severe in the country, while Colorado's ranked 18th and Virginia's ranked 20th.

The other reportable diseases that are known to occur as a result of drug abuse follow the

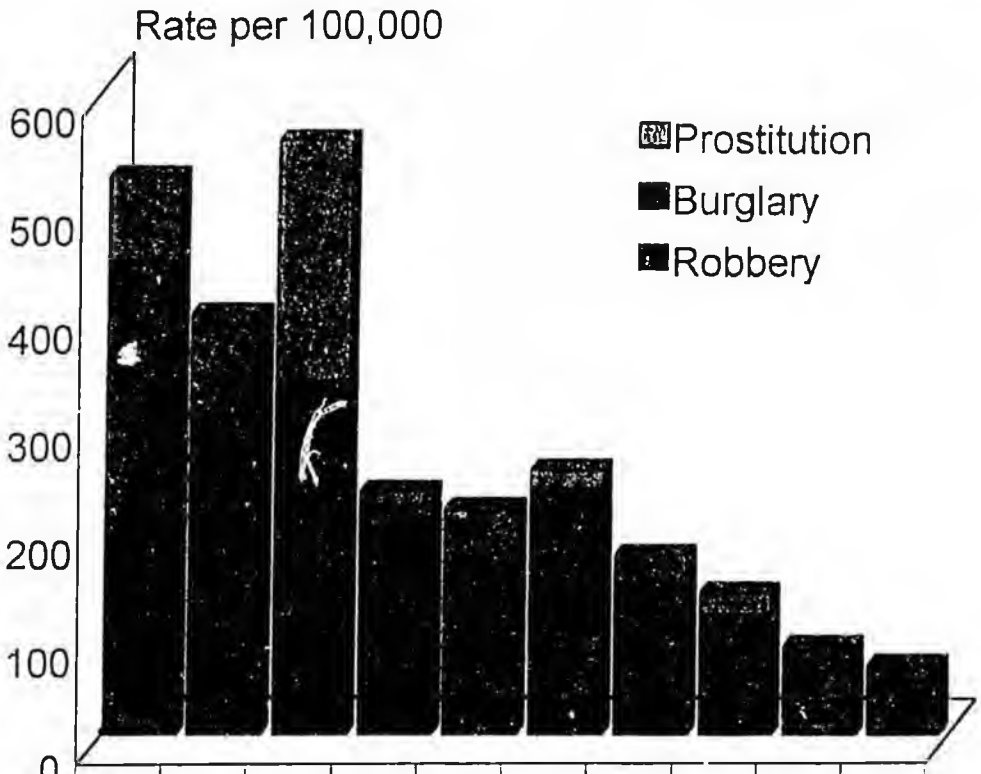
same trends among the states, although each disease has its unique features. After IV-AIDS, tuberculosis had the highest correlation with DPI ($r=.59$, $p<.05$). The rate of tuberculosis in 1995 was highest for New York, and North Dakota was second lowest behind Vermont. However, some states had higher or lower rates than would be predicted by their DPI scores. For example, Alaska's 1995 TB rate was fourth in the country, and South Carolina's rate was 13th in the country, even though their DPI rankings were not as high. Colorado's and Nebraska's TB rates were 38th and 46th nationally, despite their higher DPI rankings.

Syphilis is known to be associated with injection drug use and the exchange of drugs, especially crack cocaine, for sex. However, inspection of the interstate distribution of 1995 syphilis rates reveals that the disease is endemic in the southern United States. The correlation between syphilis and DPI was .32. When southern states are removed, the ordering of the syphilis rates of the remaining 34 states resembled the DPI distribution. New York had the highest syphilis rate, while North Dakota had the lowest rate. Nevada, Rhode Island and Colorado were in the upper half of the distribution; Alaska, Nebraska, and Montana were in the lower half of the distribution.

Of the four contagious diseases, the 1991-93 hepatitis B had the lowest correlation with DPI ($r=.27$, $p<.05$) (McAuliffe et al. 1999a). All nine of the states with the highest rates of hepatitis B in 1995 were located in the West or South, with the highest rates of hepatitis B occurring in New Mexico and Tennessee. As is evident in Figure 6, New York's hepatitis B rate was lower than its rates for other drug-related indicators. The other states upon which we are focusing and their hepatitis B ranks were Nevada (15th), Colorado (21st), Montana (25th), Nebraska (31), Alaska (32), Virginia (38), South Carolina (41st), Rhode Island (46th), and North Dakota (48th). Montana's and Alaska's ranks were somewhat higher than would be expected from their DPI scores, whereas Rhode Island's rank was lower than its drug problem rates would lead one to expect.

Drug-related Crimes. Certain categories of property crimes have long been linked to drug abuse. Recent studies of arrestees have found that a large percentage of the persons arrested for robbery, burglary, and prostitution test positive for drugs of abuse, and a large percentage of arrestees self-report symptoms that meet the criteria for a diagnosis of substance abuse or dependence (McAuliffe et al. 1999a). State rates of these crimes correlate significantly with the DPI rates. Like drug-related contagious diseases, these associated arrests may be used as an indicator of the impact of drug use disorders on a state. Although the prostitution rate for Nevada reflects its unique character, these crime rates appear to confirm the DPI scores of the Focus States.

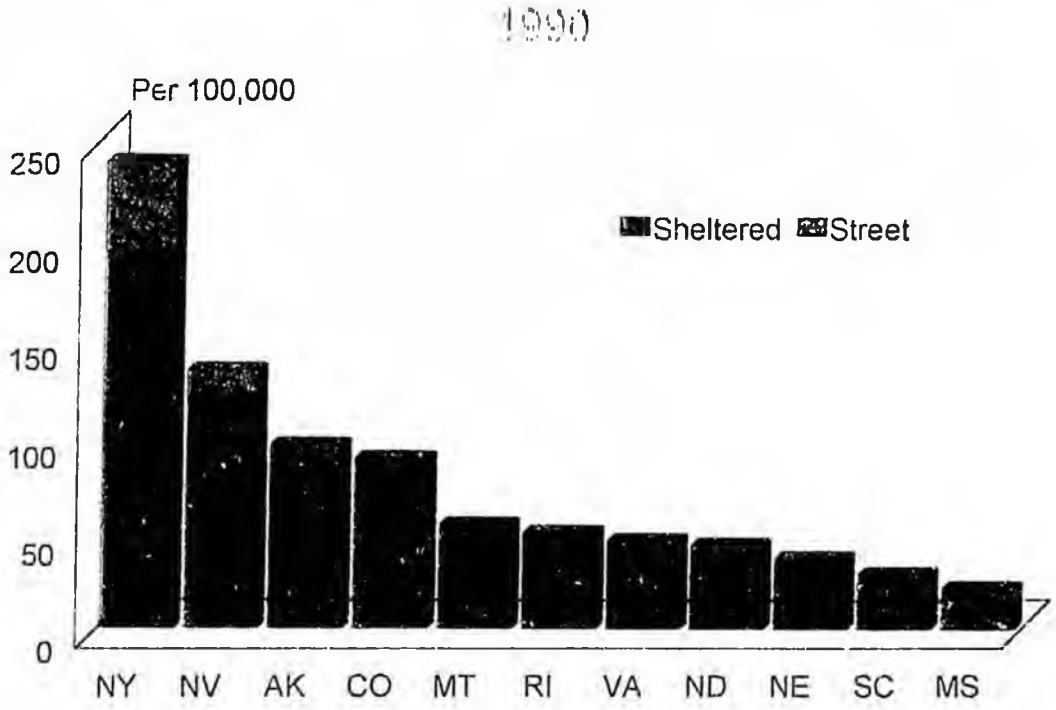
Figure 7. Arrest Rates for Drug-related Crimes, 1993



	NY	CA	NV	SC	CO	AK	RI	NE	ND	MT
Prostitution	79	57	224	13	50	18	26	21	0	0
Burglary	240	240	240	166	127	198	114	88	79	63
Robbery	201	95	90	48	34	31	28	24	4	2

Homelessness. Drug abuse is known to be prevalent among the homeless. In many cases, drug abuse caused the person to become homeless, while in other cases it appears that homeless people began using drugs because they felt that they had nothing to lose. The DPI scores correlated significantly with the states' 1990 Census rates of homeless persons living in shelters ($r=.69$, $p<.05$) and on the street ($r=.48$, $p<.05$). States with the most severe drug abuse problems (e.g., New York, California, and Nevada) have large homeless populations both in the street and in shelters. The smallest homeless populations were in Mississippi, Arkansas, and South Carolina. The only states that were surprises in Figure 8 were Rhode Island (relatively low rate of homelessness despite a high rate of drug dependence), as well as Alaska and Montana (the opposite).

Figure 8. Homeless in Shelters and on Street



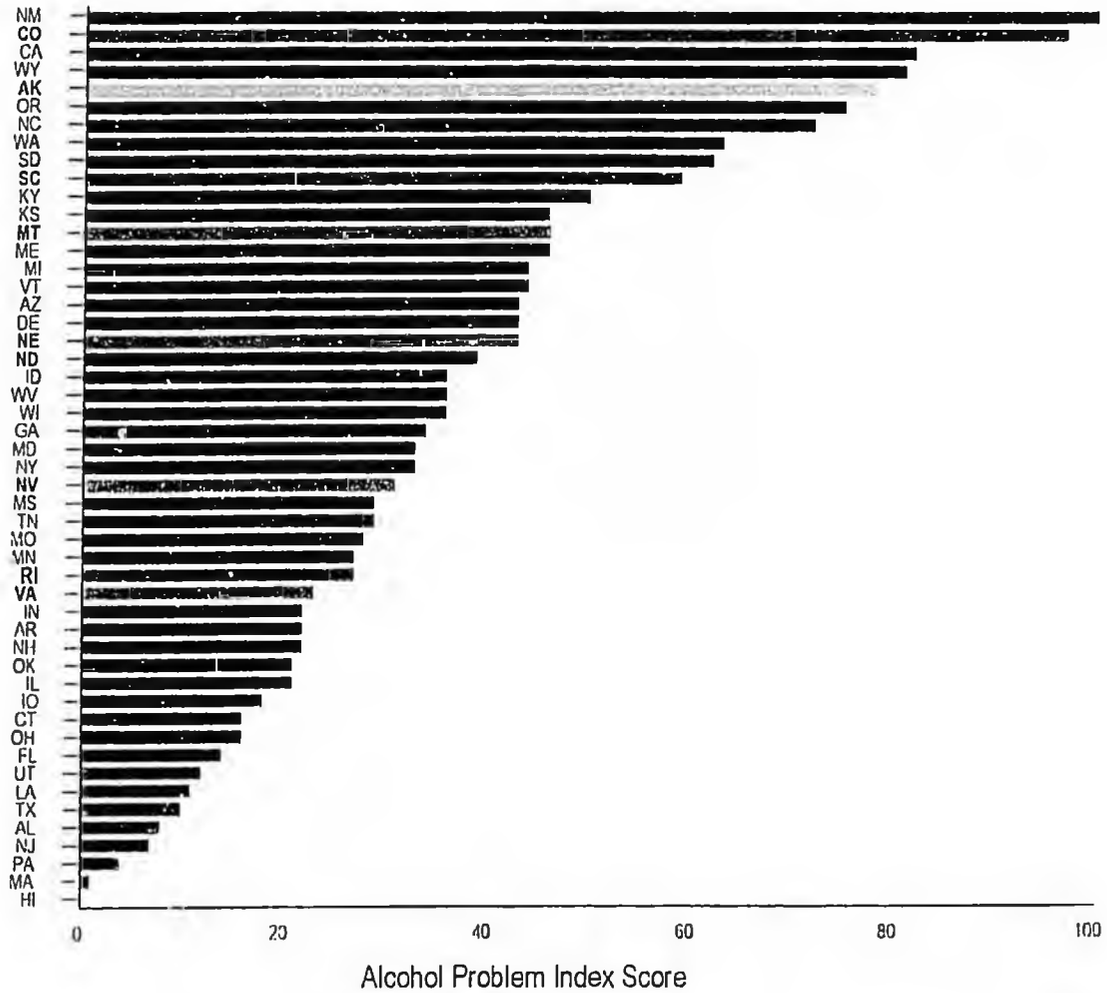
Summary: Drug Dependence

According to the Drug Problem Index, the states with the most severe controlled drug-related problems were in the Northeast and the West Coast, while the states with the least severe drug problems were in the Northern Plains and Rockies. New York and California had the most severe problems caused by the population's use of controlled drugs. Rhode Island and Nevada were also among the states most plagued by drug use disorders, ranking 5th and 7th respectively. However, the two states differed noticeably in the number of drug treatment admissions versus arrests and with regard to the consequences of drug dependence such as contagious diseases, property crimes, and homelessness. Colorado's DPI ranked the state's drug problems 15th in the country, while Virginia's, South Carolina's and Nebraska's drug problems ranked 29th, 34th and 37th most severe. Among the states ranked lowest with regard to controlled drug problems were Alaska (ranked 40th), Montana (47th), and North Dakota (50th). These DPI scores were confirmed by similar rankings on drug-related rates of diseases and crimes. Montana and South Carolina had the highest ratios of drug treatment admissions per drug arrest in the nation. Virginia, Nebraska and North Dakota were in the middle of the range on that statistic. The analysis of these statistics suggests that Nevada has a relatively severe drug problem compared to other states, and Nevada may have the clearest opportunity to respond by increasing the utilization of treatment services.

Alcohol Problems

Alcohol Problem Index (API). According to McAuliffe et al.'s (1999b) validated Alcohol Problems Index (based on deaths with explicit mention of alcohol, drunk driving arrests, and alcohol-only clients), New Mexico had the nation's most severe alcohol problems, while Hawaii had the least severe alcohol problems. With some notable exceptions, the states in the highest quartile were primarily rural and in the West. Relative to other states, the Focus States had more severe alcohol problems than drug problems. Colorado's alcohol problems ranked second in the

Figure 9. Alcohol Problem Index
1991-93



country, while Alaska's ranked fifth. None of the Focus States ranked near the bottom, with Virginia (ranked 33rd) and Rhode Island (ranked 32nd) having the group's lowest rates during 1991 to 1993 (Figure 9). Nevada ranked 27th, just two API points below the midpoint of the distribution. The remaining Focus States ranked above the median: South Carolina (10th),

Montana (13th), Nebraska (19th), and North Dakota (20th)

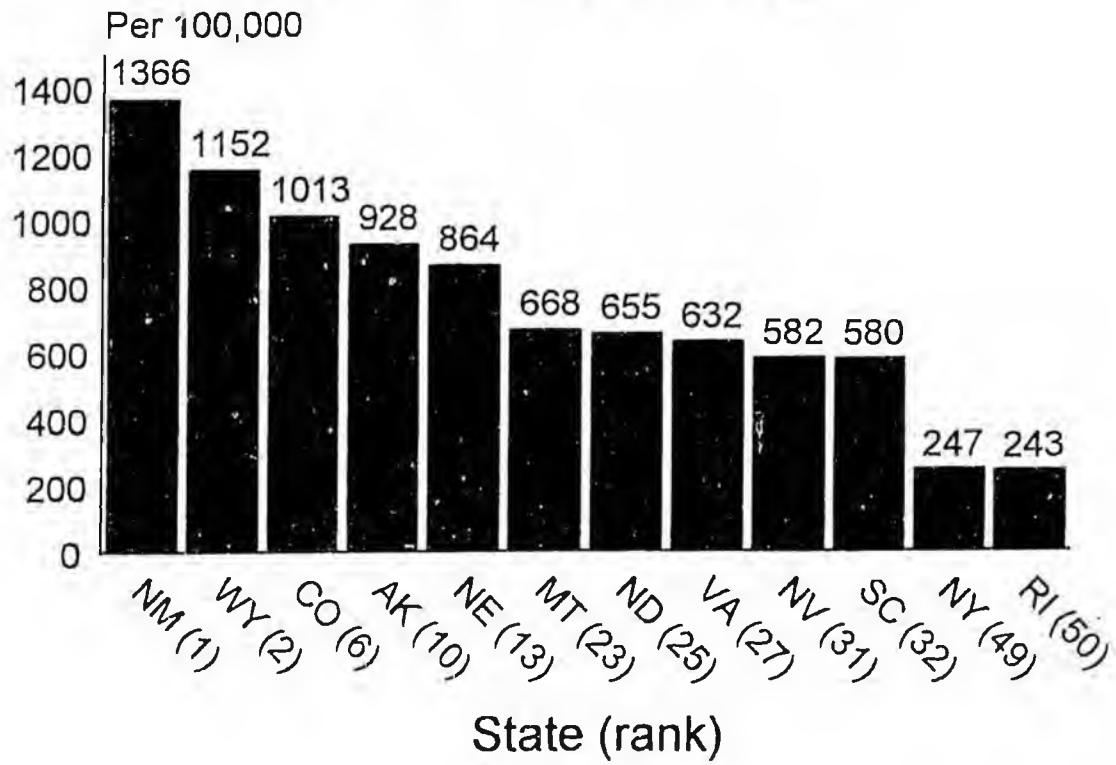
Figure 10. Explicit Alcohol Mortality Rate, 1991-93

Causes of Death with Explicit Mention of Alcohol. A key component of the API, alcohol mortality has long been used as an indicator of the severity of an area's alcohol problems. Our own research suggests that deaths with explicit mention of alcohol are the best available indicator (see above and McAuliffe et al. 1999b). Inspection of the distribution of this indicator in Figure 10 reveals that Alaska had the highest rate in the country, and closely behind it were Colorado (ranked 3rd), Montana (5th), and South Carolina (6th). Nevada and North Dakota were also high in the distribution of deaths with explicit mention of alcohol (10th and 13th). Rhode Island ranked 29th with regard to our alcohol mortality indicator. Rhode Island ranked 25th for deaths due to alcohol dependence and 19th for deaths due to alcoholic cirrhosis in 199. to 1993. With regard to the latter variable, Nevada (2nd), South Carolina (3rd), Colorado (6th), North Dakota (9th), Alaska (13th), and Nebraska (16th) also had disturbingly high relative rates. Of the Focus States, Nebraska

(37th) and Virginia (40th) had the lowest rates of deaths explicitly caused by alcohol. Hawaii had the lowest explicit alcohol mortality rate in the country. Colorado's 1991-93 mean death rate due to alcohol dependence was more than four times as great as Hawaii's (11.6 versus 2.5).

Driving Under the Influence Arrests. For our problem index, we wanted to include a measure of arrests and decided to focus on drunk-driving arrests. Drunk driving is one of the most common causes of arrest in the United States, and a large percentage of drunk drivers have been found to have alcohol use disorders according to a variety of standardized measurements (McAuliffe et al. 1999b). Other alcohol-related arrest statistics, such as drunkenness and liquor law violations, were not used because of the inconsistency among states with regard to these offenses (e.g., some states report drunkenness arrests, others do not).

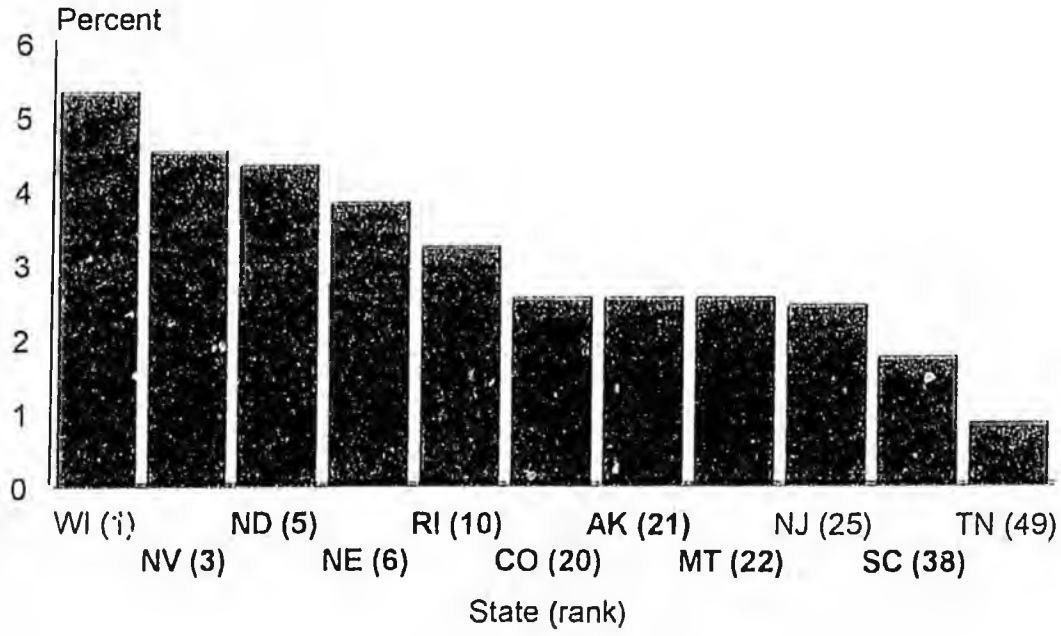
Figure 11. Driving Under the Influence Arrests, 1991-1993



The highest rate of drunk driving arrests was in New Mexico, and the lowest was in Rhode Island. North Dakota, Montana, and Virginia were about average. Colorado, Alaska, and Nebraska had the highest drunk driving rates among the Focus States. Nevada and South Carolina were below average on this statistic. As a highly urban state, Rhode Island's drunk-driving arrest statistics ranked dead last, even though the State ranked 10th nationally according to the Centers for Disease Control's Behavioral Risk Factor Surveillance Survey (BRFSS) statistics on the percentage of the population that reported driving after drinking (Figure 12). Comparison of Figures 11 and 12 reveals other similar, if smaller discrepancies between the DUI arrests and the relevant telephone survey data for Alaska, Colorado, North Dakota, and Nevada. For example, Nevada ranked 31st on DUI arrest rate but 3rd on the BRFSS statistics. Because of the wording of the BRFSS question, it is possible that the survey and arrest statistics focus on different parts of the drinking and driving picture.

Figure 12. % BRFSS Respondents Who Drove After Drinking

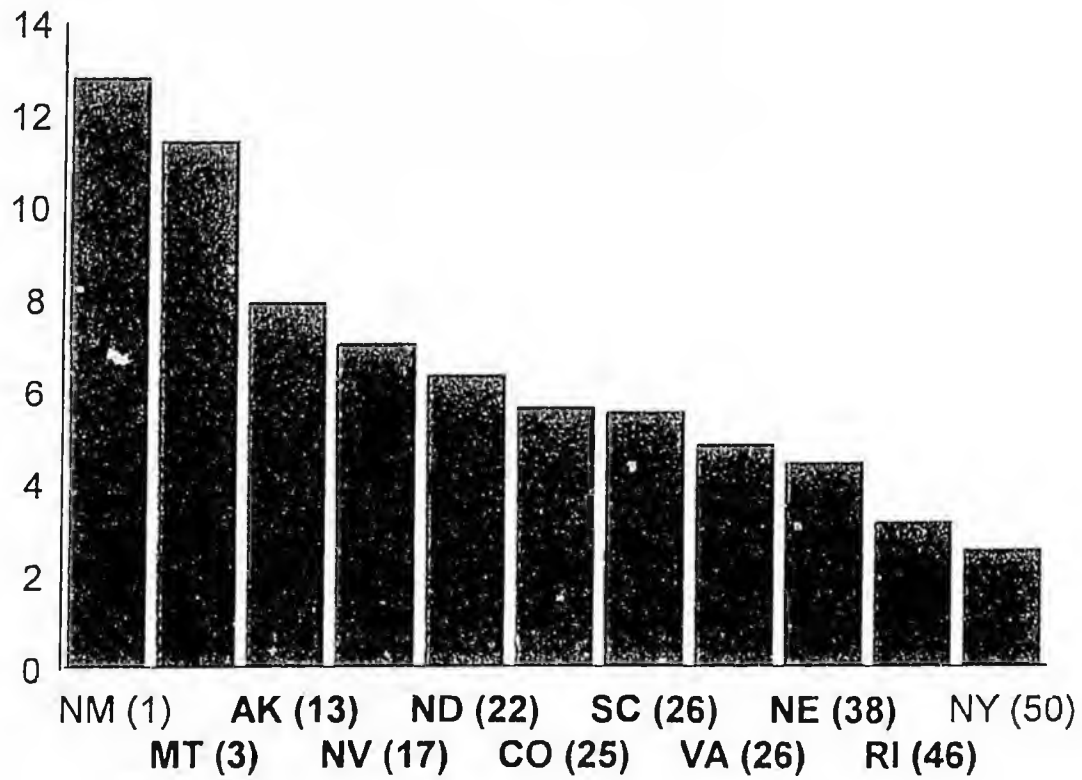
1993



The state rates of motor vehicle fatalities where drivers or non-occupants had a blood alcohol concentration exceeding .10 are presented in Figure 13. Montana's motor vehicle fatality rate with BAC>.10 was one of the highest in the country, substantially higher than its DUI rate. The reverse was true for Nebraska. Rhode Island's relatively low DUI statistics were confirmed by the State's ranking of 46th lowest with regard to motor vehicle fatalities in which the blood alcohol content was at least .10. Rhode Island's overall motor vehicle fatality rate was 50th in the country for 1993.

Figure 13. Motor Vehicle Fatalities with BAC>.10

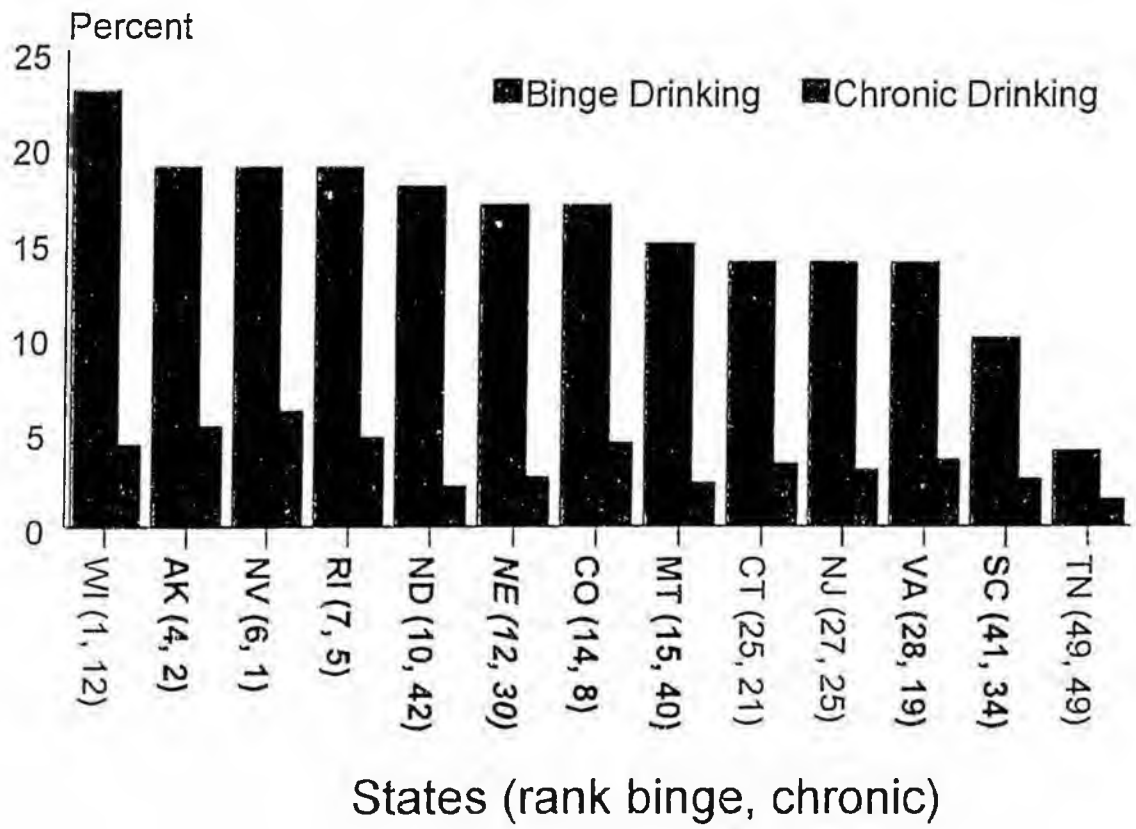
1993



Survey Statistics. As we found when discussing drunk driving measures, the BRFSS survey estimates of binge drinking and chronic drinking were not strongly related to the API and other alcohol indicators. Similarly, NHSDA drug dependence estimates were not strongly related to the DPI. Wilson et al. (1983) has argued that surveys and indicators measure different aspects of

substance abuse. Surveys are thought to measure less severe aspects of alcohol abuse. The BRFSS's definitions of "chronic" (60 or more drinks a month) and "binge" (5 or more drinks at least once in the last month) drinking may not be as severe as the usual meaning attached to these terms. For example, in the Diagnostic Interview Schedule (Robins et al. 1989) binge drinking is defined as drinking without stopping for at least several days. Presumably, such a binge would involve substantially more than five drinks. Consequently, readers may interpret these survey statistics as including moderate to heavy drinking as well as problem drinking. Further research is needed to clarify this lack of association between key alcohol measures.

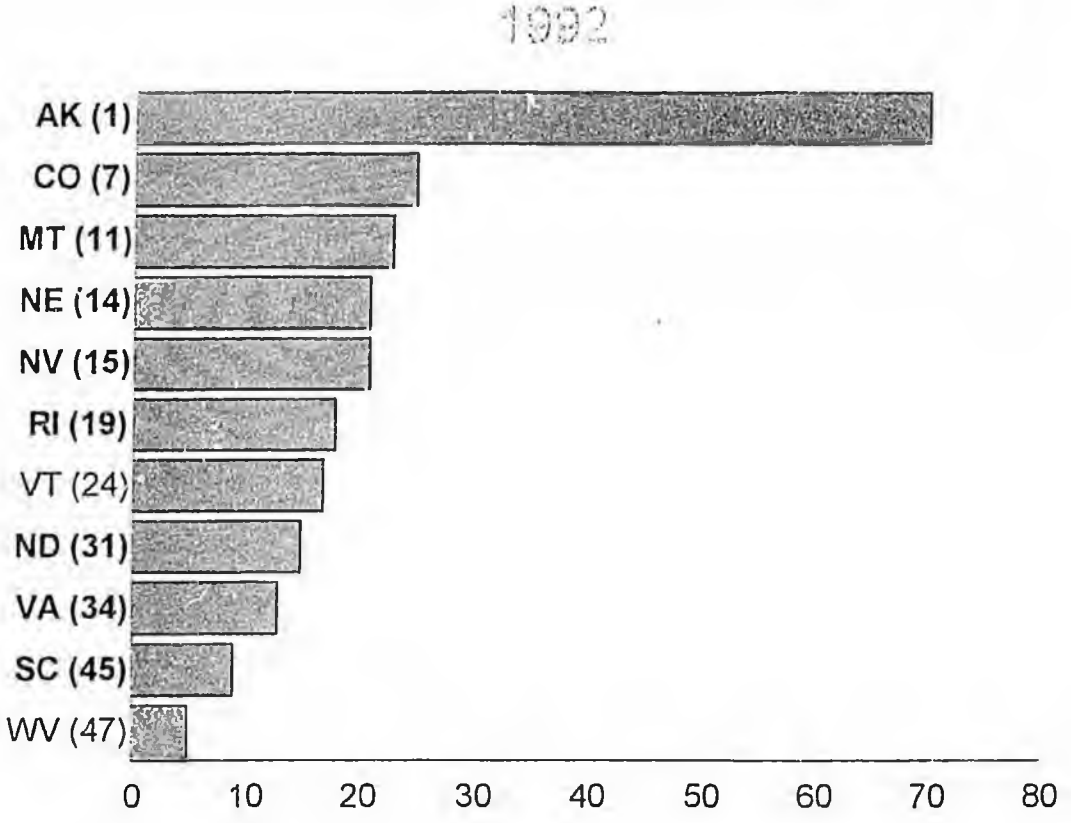
Figure 14. 1993 BRFSS Survey Drinking Estimates



To illustrate the practical impact of this statistical concern on our interstate comparisons, we examined Rhode Island's, North Dakota's and Montana's measures. Although Rhode Island was among the states with the lowest rates of DUIs and alcohol mortality, Rhode Islanders ranked 5th in the country in the percentage of household residents that reported drinking in last 30 days in the 1993 BRFSS survey. In the same study, the percentage of respondents in the State reporting "chronic use" ranked 5th in country, and the percentage of Rhode Island residents who reported "binge" drinking ranked 7th (Figure 14). By contrast, North Dakota and Montana had low rates of "chronic" drinking, even though both states have high rates of motor vehicle fatalities, explicit alcohol mortality, and DUI arrests. The binge drinking survey statistics for those two states were

higher and therefore more in line with other indicators. These anomalies are less evident for the other Focus States, where the relative order among the states is reasonably consistent with the ranks observed for other indicators. South Carolina and Virginia had relatively lower rates than Alaska, Nevada, and Colorado. Nebraska's binge drinking rate was high, but its chronic use rate was low. That divergence may reflect the state's variability on the other indicators such as alcohol mortality (low) and DUI rates (high).

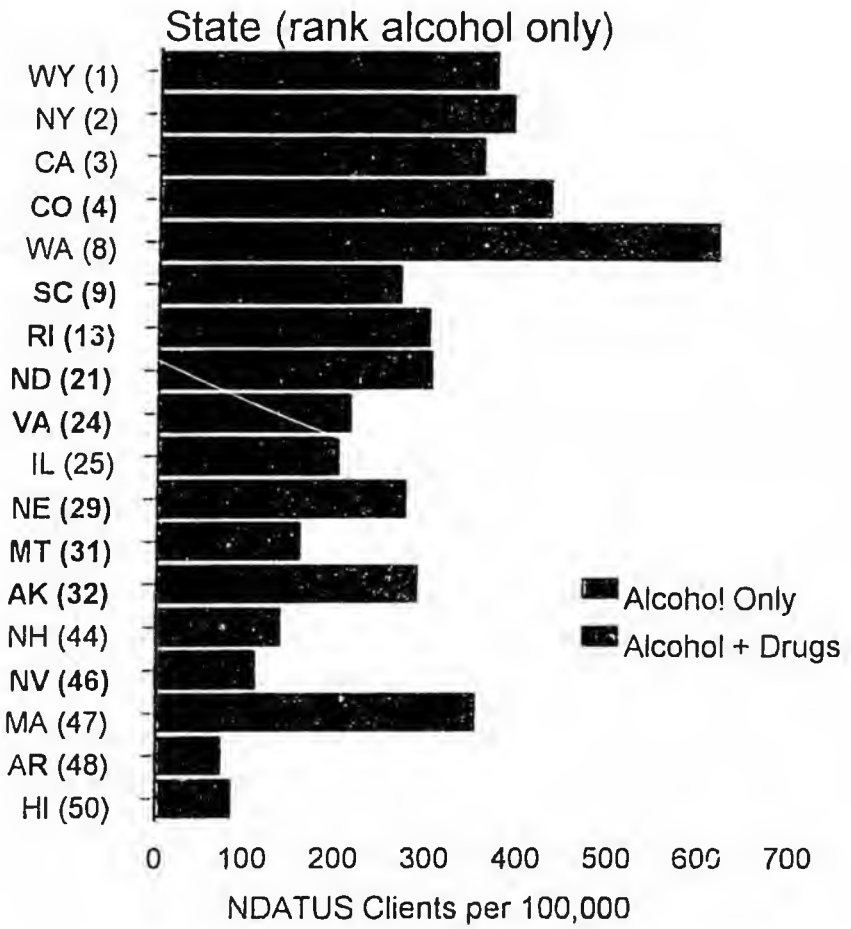
Figure 15. Mothers Who Had 3-4 Drinks per Week



Diseases with Explicit Mention of Alcohol. According to 1992 birth certificate information, the percentages of mothers of newborns who admit drinking 3-4 drinks per week were relatively high in most of the Focus States (Figure 15). Somewhat surprising was that Rhode Island ranked 19th highest in the country.

The CDC has begun collecting data on risk factors, including alcohol, for tuberculosis cases. In 1996, 40 states had reported TB risk-factor data. Alaska and South Carolina had the highest rates in the country with regard to the TB rate in which the disease was associated with excessive alcohol consumption. Nevada ranked 15th, Montana 17th, Colorado 18th, Virginia 22nd, and Rhode Island 23rd out of 40.

Figure 16. Clients in Treatment for Alcohol Problems, 1993



Alcohol Treatment Services. Although the Focus States were at or near the top of the ranks among states for nearly every alcohol indicator, including the API, they had somewhat lower rankings with regard to alcohol-only treatment clients. W[illegible]ng had the country's highest rate for this indicator, and the highest rates for Focus States were Colorado's (4th) and South Carolina's (9th). It is noteworthy that Colorado's rate of treatment clients exceeded Wyoming's when we considered clients receiving treatment for alcohol only as well those receiving treatment for both alcohol and drugs. Several states, including Alaska, Colorado, Nebraska, and North Dakota, also had substantial numbers of clients who were being treated for both alcohol and controlled drugs. For example, North Dakota ranked 21st on the alcohol-only variable, but it ranked 9th with regard to persons being treated for both drugs and alcohol. Even when persons who are being treated for both alcohol and drugs are included, Nevada and Montana did not have as many alcohol treatment clients as one might expect based on need indicators such as alcohol mortality. Nevada's alcohol-only client rate ranked 46th in the nation despite the State's relatively

high alcohol mortality rate, maternal drinking, motor vehicle fatalities associated with drunkenness, chronic and binge drinking, and DUI rates. An exception is Rhode Island, which ranked 13th even though its other alcohol indicators suggest that its alcohol problems are not as severe as its controlled drug problems, or as alcohol problems found in other states. As with drug problems, Rhode Island has done a relatively good job providing treatment services to its residents. Virginia was about average with regard to the alcohol-only clients (24th for alcohol only and 29th for alcohol and drugs).

Summary: Alcohol Problems

Analysis of the Alcohol Problem Index and related measures showed that the Focus States as a group had relatively severe rates of alcohol problems. Whereas several of these states had low DPI scores, the lowest API scores for the group were Virginia's (33rd) and Rhode Island's (32nd). Colorado, Alaska, South Carolina, Montana, Nevada, and North Dakota had API scores indicating some of the most severe alcohol problems in the nation. These index scores were generally confirmed by other alcohol-related indicators, with the possible exception of some survey indicators. Some of the states, especially Nevada and, to a lesser degree, Montana, appeared to lack alcohol treatment services to meet this level of need.

Conclusions

Summary of Indicator Findings

According to the Drug Problem Index, the states with the most severe controlled drug-related problems were in the Northeast and on the West Coast, while the states with the least severe drug problems were in the Northern Plains. New York and California had the most severe problems caused by the population's use of controlled drugs. Rhode Island and Nevada were also among the states most plagued by drug abuse, ranking 5th and 7th respectively. Colorado ranked 15th in the country, while Virginia, South Carolina and Nebraska ranked 29th, 34th and 37th most severe. Among the states with the lowest controlled drug related problems were Alaska (ranked 40th), Montana (47th), and North Dakota (50th). Nevada had relatively few treatment admissions compared to deaths and arrests related to drug use disorders.

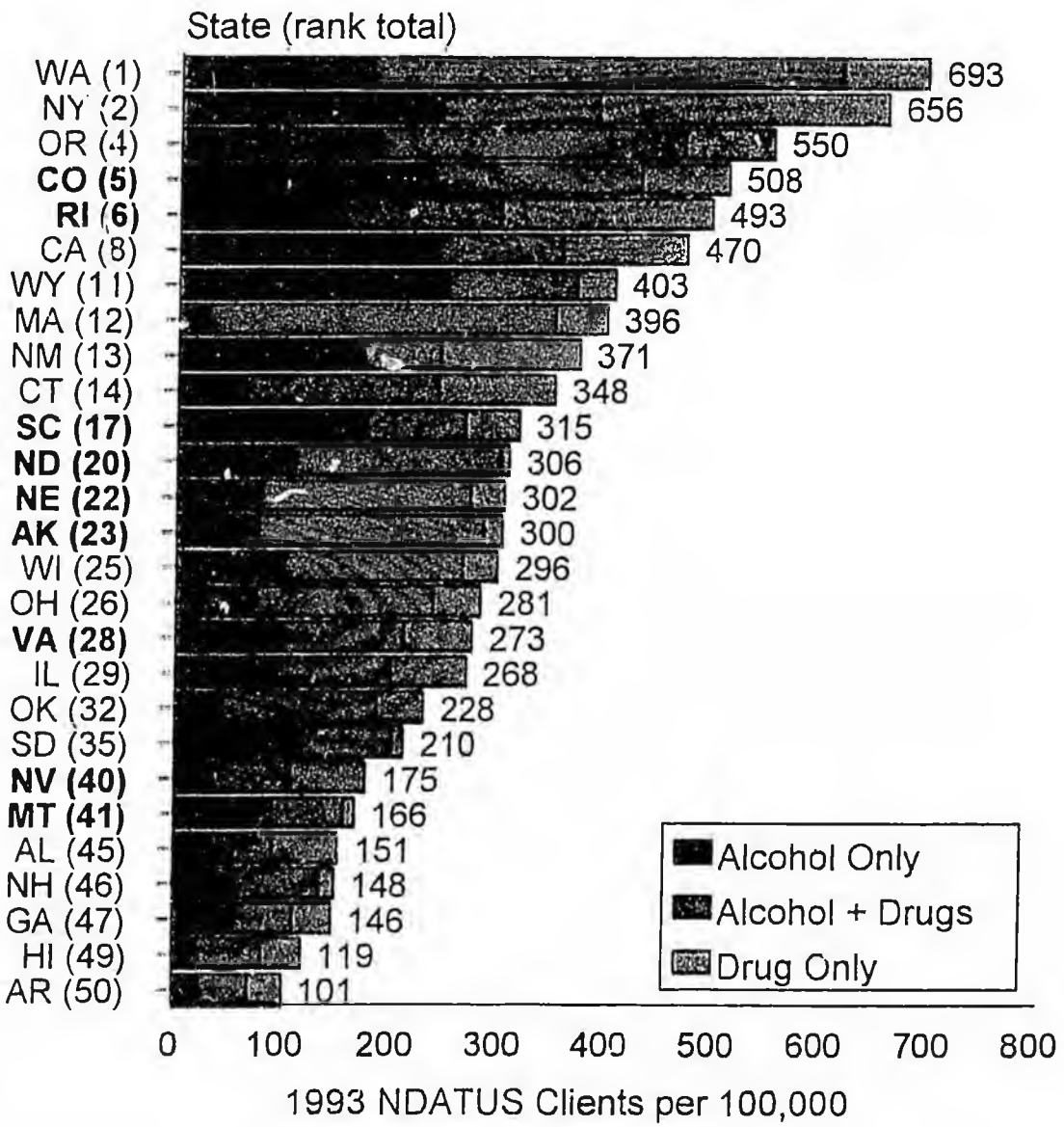
According to our Alcohol Problem Index (API) for 1991 to 1993, the states with the most severe alcohol-related problems (deaths with explicit mention of alcohol, arrests for drunk driving, and alcohol-only treatment clients) were in the West: New Mexico, Colorado, and California. Alaska was also near the top of the list, ranking 5th in the country. Montana was in the top of the distribution, ranking 13th, while Nebraska and North Dakota were in the upper half of the distribution, ranking 19th and 20th respectively. Nevada's alcohol problems were in the middle of the distribution, ranking 27th most severe. Rhode Island's alcohol problems ranked 32nd and Virginia's ranked 33rd most severe nationally.

How Well Do Treatment Services Match Treatment Need?

A critical question is whether a state's treatment services are in line with the relative severity of its substance abuse needs. Although social indicator studies can address this issue only on a relative basis, such information is useful for both scientists, policy makers and state officials.

Inspection of the combined alcohol and drug treatment per capita utilization data from the 1993 NDATUS surveys presented in Figure 17 shows that some states appear to be providing substance abuse services at much higher rates than others. For example, there was nearly a seven-

Figure 17. Substance Abuse Treatment Clients



fold difference between Washington State and Arkansas in that year. The mix of treatment for controlled drugs, alcohol or both also varies substantially from state to state, and the mix appears to be unrelated to the overall per capita rate of clients in treatment.

To understand the variance in the supply and mix of services, we compared the differences in utilization to differences in state needs during the previous three years. For our measure of need, we combined the state rankings on alcohol and drug arrests and deaths for 1991 to 1993 (see Figure 18). In this graph, the smaller the bars, the more severe the problem.

These ranks show that states vary widely in both the overall severity of their substance abuse problems and in the mix of relative alcohol and controlled drug problems. Some states had severe controlled drug problems compared to other states, but relatively moderate alcohol related problems; the reverse was also true. The states with the most severe problems stemming from both alcohol use and controlled drug use were California, New Mexico, North Carolina, Colorado, Oregon, and Nevada. Whereas California and Nevada have relatively severe drug problems, the other four states have relatively severe alcohol problems compared to other states. In the upper middle of the range of need, South Carolina, Alaska, and Montana had more severe alcohol problems compared to other states, while their controlled drug problems were less severe than in other states. Rhode Island's treatment service needs stemmed more from its relatively severe controlled drug problems than its relatively moderate alcohol problems. Compared to Rhode Island, Virginia's alcohol and controlled drug problems ranked lower in the need range and were more evenly balanced between alcohol and controlled drugs. North Dakota had moderately severe relative alcohol problems, but its drug death and arrest rates ranked near the bottom nationally. Consequently, North Dakota's combined substance abuse need indicators placed it among the states with the least severe overall problems: Hawaii, Utah, Pennsylvania, West Virginia, Alabama, Indiana, and Iowa.

These need rankings appeared to explain some of the differences among the states in the percentage of their citizens who were receiving treatment in 1993, but the relationship was only moderately strong. In Table 1, we divided the 1991-93 need rankings and 1993 utilization rankings into quintiles and then cross-tabulated the two quintile measures. States with the highest levels of need, such as Colorado, were most likely to have the highest levels of services as well. South Carolina also had a high level of treatment services to match its high level of treatment needs. Two exceptions were North Carolina and Nevada, which had services ranking them as about average, even though they both had the highest combined levels of alcohol and controlled drug treatment needs. The other states with the greatest gaps between needs and services were Mississippi and Georgia. Montana and Alaska appeared to in the group of relatively underserved states.

North Dakota appeared to stand out as a state with a low level of need, especially with regard to drug use disorders, and a relatively high level of treatment utilization. Other states that had relatively favorable ratios of services to need included Rhode Island, Nebraska, and Virginia. As noted earlier, these favorable statistics are relative to other states. Evidence from surveys that are designed to measure absolute levels of met and unmet need have routinely found that most states have a substantial amount of unmet demand for services. Consequently, it is important to confirm the findings of these social indicator analyses by examining state-level survey data on treatment need and unmet demand.

Figure 18. Substance Abuse Treatment Need Ranks of Deaths and Arrests, 1991-93

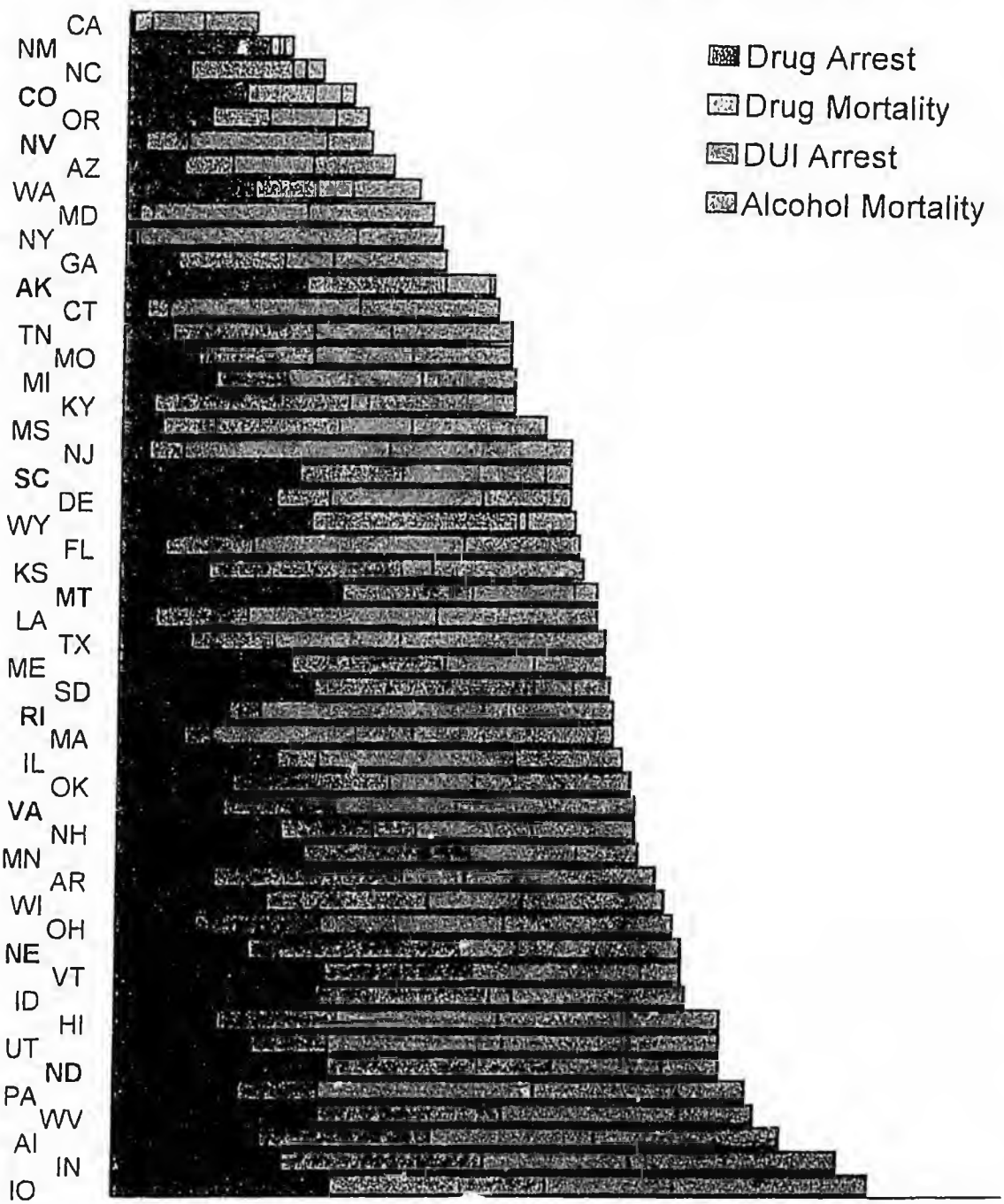


Table 1. Substance Abuse Treatment Need and Utilization of Treatment Services					
Treatment Utilization (1993)	Treatment Need (1991-93)				
	Lowest (V)	Low (IV)	Moderate (III)	High (II)	Highest (I)
Highest (1)			ME, RI, DE	MI	WA, NY, OR, CO, MD, CA
High (2)	ND	MA	WY, FL, KS	CT, NJ, KY, SC	NM
Moderate (3)	UT, PA, IN	NE, WI, OH, VA, IL		AK	AZ
Low (4)	VT, WV	OK	LA, SD, TX	TN, MO	NC, NV
Lowest (5)	ID, IO, AL, HI	NH, MN, AR	MT	MS, GA	

Note: Treatment Utilization is the total number of clients in treatment as measured by the NDATUS surveys in 1991 to 1993. Treatment Need is the sum of the ranks for the state rates of drug mortality, drug arrests, DUI arrests, and alcohol mortality (explicit mention).

Placing Alaska's Controlled Drug and Alcohol Problems in Perspective

Alaska's residents had severe alcohol problems during the study period of 1991-1993. According to the composite Alcohol Problem Index, the State's alcohol problems ranked 5th in the country. Alaska's alcohol mortality rate was 1st in the country, and the BRFSS survey ranked the State 2nd in percentage of its residents who are chronic drinkers. Further supporting evidence of alcohol problems was Alaska's rank of 1st in percentage of newborns whose mothers had 3-4 drinks per week, and the State's rank of 1st in fetal alcohol syndrome rate.

Alaska's drug abuse problems appeared to be less severe than those found in most other states. According to the Drug Problem Index, the State's drug problems ranked 40th in the country. The low DPI scores were confirmed by Alaska's relatively low ranking with regards to crimes and diseases associated with drug abuse. For example, the State had a low ranking for Robbery (32nd), Prostitution (33rd), Hepatitis B (32nd), and Syphilis (38th).

An exception among the series of drug indicators was the Rand Corporation's synthetic estimate of the percentage of Alaska's residents meeting diagnostic criteria for "drug dependence." According to the Rand estimate, the State's drug dependence rate ranked 1st in the country. However, many of the Rand synthetic estimates appeared to be somewhat implausible. Rand estimates suggested that all of the states in the West had severe drug problems even though most of these states, including Alaska, were inadequately sampled. Most of the cases of drug dependence interviewed in the National Household Survey on Drug Abuse (NHSDA) reflect a marijuana use disorder. Because the synthetic estimates are based on NHSDA data, the Rand estimates are probably dominated by marijuana disorders as well. Alaska ranked 8th in percentage of treatment admissions primarily for marijuana use disorders.

Overall, Alaska ranked 12th with regard to the sum of ranks for alcohol and drug deaths and arrests (Figure 18). However, the number of residents receiving treatment ranked lower than the need indicators would suggest. The NDATUS treatment client survey ranked Alaska 23rd in the country with regard to the proportion of residents in substance abuser treatment at a single point in time (Figure 17). Therefore, it can be hypothesized that the State's residents were relatively underserved because of the severity of alcohol problems (Table 1).

Table 2. Summary of Drug and Alcohol Statistics for Alaska

Indicator (rate/100,000)	Alaska's Value*	Rank Nationally*
Drug Indicators:		
Drug Problem Index (DPI) (91-93)	10	40
Drug-coded Mortality (91-93)	1.4	31
UCR Drug-defined Arrests (91-93)	157	41
NDATUS Drug-only Client (91-93)	30	40
NASADAD Treatment Admissions per drug arrests (91-93)	1.31	11
Rand Drug Dependence Synthetic Survey Estimates (91-93)	2.7	1
Drug Related Diseases:		
Hepatitis B (n=49) (1995)	2.2	32
TB (1995)	13	4
Syphilis (1995)	3	38
Drug-related Crimes:		
Robbery (n=48) (1993)	31	32
Burglary (n=48) (1993)	198	9
Prostitution (n=48) (1993)	17.50	33
Homeless in shelters (1990)	.09	10
Block Grant Drug Need Index per capita (1995)	1.82	39
Alcohol Indicators:		
Alcohol Problem Index (API) (91-93)	78	5
Alcohol Mortality, Explicit Mention (91-93)	28	1
UCR DUI arrests (91-93)	928	10
NDATUS Alcohol-only Client (91-93)	104	25
BRFSS		
% Chronic Drinkers (1993)	5.3	2
% Binge Drinkers (1993)	19.3	4
Fetal Alcohol (1992)	.10	1
% Mothers who drank 3-4 drinks/week per 100 live births (1992)	.70	1
Motor Vehicle Fatalities, BAC>.10 (1993)	7.9	13
Block Grant Alcohol Need Index per capita (1995)	2.33	3

*Whereas a low rate is generally favorable, a high rank is favorable. The most severe problems have a rank of 1; the least severe have a rank of 50.

Appendix: Data Sources

Alcohol- and Drug-coded Mortality Rates: The National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention published the Multiple Cause of Death Files for 1991, 1992, and 1993 on CD-rom (NCHS 1997a, b, c). Coded by state or NCHS nosologists from death certificates (Hopkins et al. 1989), each record contains multiple causes (up to 20) and demographic characteristics including residence for each death. We identified all death records that included at least one alcohol-abuse-coded or drug-abuse-coded cause.

Because our study's purpose differed from studies that seek to determine the total impact of alcohol use, we included in our index only causes of death with explicit mention of alcohol (direct causes) according to the coding scheme used by the NIAAA's (1994) County Alcohol Problem Indicators. The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) (U.S. Department of Health and Human Services, 1980) diagnoses with explicit mention of alcohol included alcoholic psychoses (ICD-9-CM code 291), alcohol dependence syndrome (303), nondependent abuse of alcohol (305.0), alcoholic polyneuropathy (357.5), alcoholic cardiomyopathy (425.5), alcoholic gastritis (535.3), alcoholic fatty liver (571.1), acute alcoholic hepatitis (571.0), alcoholic cirrhosis of the liver (571.2), unspecified alcoholic liver damage (571.3), excess blood alcohol level (790.3), and accidental poisoning by ethyl alcohol (E860.0, E860.1). We counted only alcohol-related deaths for persons 12 or older in order to eliminate accidental deaths by non-abusers. The denominator of the Alcohol-coded Mortality Rate is based on the entire population.

We defined "drug-coded" deaths as including drug dependence (304.0 to 304.9), nondependent abuse of drugs (305.2 to 305.9), and accidental poisoning. The largest proportion of cases were due to accidental poisoning. We excluded poisoning cases that were coded as purposely inflicted. We defined a "drug-coded accidental poisoning" as any accidental poisoning involving commonly abused drugs. The ICD-9-CM code for accidental poisoning includes accidental overdose, drug taking in error, and accidents in the use of drugs in medical and surgical procedures. To create our drug-coded accidental poisoning measure, we selected cases which had a poisoning "N" code for the drugs of interest and an "E" code which indicated that the poisoning was either accidental (E850.0 to E858.9) or of undetermined intent (E980.0 to E980.9). We included the undetermined category on the assumption that a majority of those cases were accidental overdoses associated with the abuse of those drugs. The "drug-coded accidental poisoning" category thus included deaths associated with ingestion of opiates (N965.0), surface anaesthetics (N968.5), other specified analgesics (N965.8), barbiturates (N967.0), psychodysleptics (N969.6), psychostimulants (N969.7), benzodiazepines (N969.4), chloral hydrates (N967.1), gluthemide (N967.5) and unspecified sedative or hypnotics (N967.9) that were also assigned an accidental or undetermined intent E code (E850 to E858.9 and E980 to E980.9).

We counted only drug-coded deaths that occurred in persons 12 to 64 in an effort to eliminate accidental poisoning of children and the elderly–groups that rarely if ever need drug abuse treatment. However, the Drug-coded Mortality Rate employed the entire population in the denominator (see below). It was possible for a case that was counted as having a drug-coded death also to have one or more alcohol-coded reasons as well, and vice versa.

NDATUS Treatment Client Rates: The Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration has conducted an annual survey of treatment providers to assess the number of persons in specialty substance abuse treatment at one point in time (Office of Applied Studies 1993, 1995a, b). In the years used in this report, the sampling frame included 12,303 specialty providers of substance abuse treatment, including public and private free-standing units and units in multi-purpose institutions. Identified mostly by state and federal agencies, these providers report information about all active clients in treatment on a specific reference day in the previous year (September 30, 1991 and 1992, and October 1, 1993). Mailed questionnaires sent out on September 15th collect the data. The response rate was 93% in the 1993 survey (Office of Applied Studies 1995b).

NASADAD Alcohol Treatment Admission Rates: The National Association of State Alcohol and Drug Abuse Directors, Inc. reports treatment admissions data annually from state agencies (Butynkski et al. 1994; Gustafson et al. 1995; SAMHSA 1993). This survey includes data from only those programs that received at least some funds administered by the state alcohol and drug agency. The admissions statistics were derived from the Client Data System (CDS), and state officials had an opportunity to review the statistics for accuracy prior to their publication by NASADAD. The NASADAD Alcohol Treatment Admissions Rate included the number of admissions per 100,000 state residents.

Alcohol- and Drug-defined Arrest Rates: The Federal Bureau of Investigation's (FBI) Uniform Crime Reporting (UCR) system reports statistics on arrests for violations of state and local laws that are associated with alcohol abuse, including DUI arrests, drunkenness, disorderly conduct, and liquor-law violations (FBI 1994). The arrest statistics count only those cases in which the alcohol charge was the most serious (GAO 1990). Because the number of units within a state reporting to the UCR varies from year to year, the alcohol-related arrest rates were defined as these arrests per 100,000 state residents covered by the statistics for the year in question. When several apparent discrepancies were noted in the published UCR DUI data, we called the state offices handling the UCR statistics. Entries were corrected for three states. In one state (Delaware), all three years were corrected. In both 1991 and 1993, there were two states with missing data. Since they are different states, all four states reported data for at least two out of three years. Because there were high correlations among the years (see McAuliffe et al. 1999a, b), we used regression analysis to estimate the four missing observations from adjacent years.

The UCR also reports statistics on arrests for violations of state and local laws pertaining to possession, sale, growing, manufacturing, and making of narcotic drugs (FBI, 1994). In both 1991 and 1993, two states had missing observations, although every state had data for at least two out of three years. As with the DUI arrests, we employed regression analysis to estimate the missing observations.

Population Size Estimates: The rates analyzed in this report are based on Census estimates of the entire population for 1991, 1992 and 1993 (U.S. Bureau of the Census 1996). We used the entire population as the base of rates instead of the drug-using population because the primary interest for this analysis is to measure the burden of drug abuse on the entire state. Other things held constant, states with large elderly populations have lower rates of abuse than states with

small elderly populations. If the elderly population were removed from the denominator, the resulting rate would overestimate the burden of drug dependence on the entire state (e.g., costs for treatment services). Age structure is a relevant cause of the variations in the rates of drug dependence over states. The goal of the present investigation is to estimate the magnitude of these variations rather than to control them.

Drinking during Pregnancy Rates: We obtained unpublished birth certificate data from the National Center for Health Statistics. The number of birth certificates which noted that the mother drank three or four drinks per week in 1992 was available for 47 states. The denominator of this measure was the total state populations.

Drug-related Disease Rates: Statistics on state rates of IV-AIDS are reported to the CDC (1994a). To verify the meaning of the missing data and obtain corrected values if they were available, we called states with missing values. Drug-related diseases, including hepatitis B, tuberculosis, and syphilis, are reported to the CDC's National Notifiable Diseases Surveillance System (CDC 1992, 1993, 1994d, 1995). There were no missing observations in the 1991, 1992, and 1993 hepatitis B, syphilis, and TB series. However, a new hepatitis case definition published by CDC in 1990 was not immediately adopted by all states. By calling three states to verify large annual variations in their counts of hepatitis cases, we obtained corrected data in one case (Delaware).

Alcohol-related Traffic Fatalities: Using data from the Fatal Accident Reporting System (FARS), the National Highway Traffic Safety Administration (NHTSA) published state-level estimates of alcohol involvement in fatal crashes for 1993 (U.S. Department of Transportation 1993). The NHTSA enhanced the FARS data on the blood alcohol concentration (BAC) of drivers and non-occupants by estimating missing blood alcohol levels. We used the NHTSA's estimates of the number of drivers involved in fatal crashes with a blood alcohol concentration of .10 or greater. We divided these statistics by the total state population to obtain the state's rate.

Block Grant Alcohol Need Allocation Index per Capita: The Block Grant allocation formula's population-at-risk-of-alcohol-abuse index is expressed as a proportion of the total Block Grant funds that should go to the state. The formula equals the proportion of the national population aged 25 to 64 that resides in the state. For this paper, we used 1992 population data, which is what we inferred that the government used to calculate 1995 Block Grant allocations. The Block Grant allocations are based on the latest available data, which usually has several years of lag. We guessed therefore that the need measures that we used in this chapter would have been used for the 1995 allocation. We excluded the District of Columbia. To make this measure comparable to the other rate-based measures in this study, we multiplied each state's proportion by half of the current total Block Grant amount and divided the dollars by the size of the state's total population in 1995. Because these population estimates are periodically updated, there may be small differences between the population figures that we used and those used in the actual calculation of the Block Grant formula in 1995. Our index ignores adjustments for cost of living and state fiscal capacity that also determine the actual Block Grant allocations.

BRFSS 1993 Drinking Statistics: We used data from 1993 on "chronic use," which CDC has defined as 60 or more drinks during the previous month (CDC 1994c). We also analyzed data on driving after drinking and "binge drinking," which CDC defined as 5 or more drinks at least once in the last month.

NHSDA Direct and Bayesian Model Estimates: Folsom et al. (1996; Folsom and Judkins, 1997) reported "direct" survey estimates of past-year drug treatment for 26 states based on the combined NHSDA data from 1991 to1993. The authors also reported the model-based estimates of a range of variables, including dependence on illicit drugs.

Rand Criteria Synthetic Estimates: Burnam et al. (1994, figures estimated from Table 4.4) reported estimates of the percentage of each state's population that met the "Rand criteria" for drug dependence. The Rand criteria were Burnam et al.'s (1994, p. 67) attempt to approximate the criteria for drug dependence of American Psychiatric Association's (1987) Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III-R). This step was necessary because the study used NHSDA data that covered only one of the nine DSM-III-R criteria for a current diagnosis and partially covered four more (Epstein and Gfroerer, 1995). To satisfy the Rand drug dependence criteria, subjects must have reported having three or more of eight "problems" in the past year with regard to a specific drug. The problems included 1) tried to cut down or unable to cut down, 2) tolerance, 3) feeling sick as a result of drug use, 4) psychological problems due to drug use, 5) social problems due to drug use, 6) physical health problems, 7) used the drug daily for two weeks or more, and 8) felt dependent on the drug.

References

American Psychiatric Association. (1997). *Diagnostic and Statistical Manual of Mental Disorders. 3d ed., rev.* Washington, DC: the Association.

Borges NJ and Hansen SL. (1993). Correlation between college students' driving offenses and their risks for alcohol problems. *J Am Coll Health* 42:79–81.

Buechner J. (1997). Alcohol involvement in motor vehicle fatalities, 1995. *Medicine and Health in Rhode Island.* 80(7):232-233.

Burnam A; Reuter P; Adams J; Palmer A; Model K; Rolph J; Heilbrunn J; Marshall G; McCaffrey D; Wenzel S; and Kessler R. (1997). *Review and Evaluation of the Substance Abuse and Mental Health Services Block Grant Allotment Formula.* Santa Monica, CA: RAND Drug Policy Research Center.

Burnam MA; Reuter P; Adams JL; Palmer AR; Model KE; Rolph JE; Heilbrunn JZ; Marshall GN; McCaffrey DF; Wenzel SL; and Kessler RC. (1994). *Review and Evaluation of the Substance Abuse and Mental Health Services Block Grant Allotment Formula.* Santa Monica, CA: RAND Drug Policy Research Center.

Butynski W; Reda JL; Bartosch W; McMullen H; Nelson S; Anderson RL; Ciaccio M; Sheehan K; Fitzgerald C; National Association of State Alcohol and Drug Abuse Directors (NASADAD); and Substance Abuse and Mental Health Services Administration (SAMHSA). (1994). *State Resources and Services Related to Alcohol and Other Drug Problems: Fiscal Year 1992: An Analysis of State Alcohol and Drug Abuse Profile Data.* Rockville, MD: U.S. Department of Health and Human Services.

Centers for Disease Control and Prevention (CDC). (1992). Summary of notifiable diseases, United States 1991. *MMWR Morb Mortal Wkly Rep* 40(53):1-12.

Centers for Disease Control and Prevention (CDC). (1993). Summary of notifiable diseases, United States 1992. *MMWR Morb Mortal Wkly Rep* 41(53):1-12.

Centers for Disease Control and Prevention (CDC). (1994a). AIDS Public Information Data Set. Six disks and technical report. December 1993. Rockville, MD: U.S. Department of Health and Human Services.

Centers for Disease Control and Prevention (CDC). (1994b). Drivers with repeat convictions or

arrests for driving while impaired—United States. *MMWR Morb Mortal Wkly Rep* 43:759–761.

Centers for Disease Control and Prevention (CDC). (1994c). 1993 Behavioral Risk Factor Surveillance Data. (Unpublished data).

Centers for Disease Control and Prevention (CDC). (1994d). Summary of notifiable diseases, United States 1993. *MMWR Morb Mortal Wkly Rep* 42(53):1-12.

Centers for Disease Control and Prevention (CDC). (1995). Tuberculosis morbidity–United States, 1994. *MMWR Morb Mortal Wkly Rep* 44:387-389, 395.

Chalmers D; Olenick NL; and Stein W. (1993). Dispositional traits as risk in problem drinking. *J Subst Abuse* 5:401–410.

Chang I and Lapham SC. (1996). Validity of self-reported criminal offenses and traffic violations in screening of driving-while-intoxicated offenders. *Alcohol Alcohol* 31:583–590.

Duncan DF. (1997). Chronic drinking, binge drinking and drunk driving. *Psychol Rep* 80:681–682.

Epstein JF and Gfroerer JC. (1995). Estimating substance abuse treatment need from a national household survey. Presented at 37th International Conference on Alcohol and Drug Dependence; August 20-25, 1995; La Jolla, California.

Federal Bureau of Investigation (FBI). (1994). *Uniform Crime Reports for the United States 1993.* Washington, DC: U.S. Department of Justice.

Folsom RE and Judkins DR. (1997). *Substance Abuse in States and Metropolitan Areas: Model Based Estimates From the 1991-1993 NHSDA—Methodology Report.* Rockville, MD: U.S. Department of Health and Human Services.

Folsom RE; Lessler JT; Witt MB; Gfroerer JC; Wright DA; Gustin K; Office of Applied Studies; and SAMHSA. (1996). *Substance Abuse in States and Metropolitan Areas: Model Based Estimates From the 1991-1993 National Household Surveys on Drug Abuse Summary Report.* Rockville, MD: U.S. Department of Health and Human Services.

General Accounting Office (GAO). (1990). *Rural Drug Abuse: Prevalence, Relation to Crime, and Programs.* Washington, DC: GAO.

Gustafson JS; Reda JL; McMullen H; DiCarlo M; Anderson R; Brooke M; Ciaccio M; Foley L; Gemma D; Nelson S; Sheehan K; and NASADAD. (1995). *State Resources and Services Related to Alcohol and Other Drug Problems: Fiscal Year 1993: An Analysis of State Alcohol and Drug Abuse Profile Data.* Washington, DC: NASADAD.

Hopkins DD; Grant-Worley JA; and Bollinger TL. (1989). Survey of cause-of-death query criteria used by State vital statistics programs in the US and the efficacy of the criteria used by the Oregon Vital Statistics Program. *Am J Public Health* 79:570–574.

Kennedy B; Isaac NE; and Graham JD. (1996). The role of heavy drinking in the risk of traffic fatalities. *Risk Anal* 16:565–569.

Lapham SC; Skipper BJ; Owen JP; Kleyboecker K; Teaf D; Thompson B; and Simpson G. (1995). Alcohol abuse screening instruments: Normative test data collected from a first DWI offender screening program. *J Stud Alcohol* 56:51–59.

Mancino M; Cunningham MR; Davidson P; and Fulton RL. (1996). Identification of the motor vehicle accident victim who abuses alcohol: An opportunity to reduce trauma. *J Stud Alcohol* 57:652–658.

McAuliffe WE; LaBrie RA; Lomuto N; Betjemann R, and Fournier E. (1999a). Measuring interstate variations in drug problems. *Drug Alcohol Depend* 53(2):125-145.

McAuliffe WE; LaBrie R; Lomuto NA; Pollock NE; Betjemann R; and Fournier E. (1999b, In Press). Measuring interstate variations in problems related to alcohol use disorders. In: Dufour MC, Wilson RA, Eds. *No Title; Forthcoming NIAAA Monograph,* Rockville, MD: NIAAA.

National Center for Health Statistics (NCHS). (1997a). 1991 Multiple Cause-of-Death File. Hyatsville, MD: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics.

National Center for Health Statistics (NCHS). (1997b). 1992 Multiple Cause-of-Death File. Hyatsville, MD: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics.

National Center for Health Statistics (NCHS). (1997c). 1993 Multiple Cause-of-Death File. Hyatsville, MD: U.S. Department of Health and Human Services, Center for Disease

Control and Prevention, National Center for Health Statistics.

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (1994). *U.S. Alcohol Epidemiologic Data Reference Manual Volume 3, Fourth Edition: County Alcohol Problem Indicators 1986–1990.* NIH Pub. No. 94–3747. Rockville, MD: NIAAA.

Office of Applied Studies. (1993). *National Drug and Alcoholism Treatment Unit Survey (NDATUS): 1991 Main Finding Report.* Rockville, MD: US Department of Health and Human Services.

Office of Applied Studies. (1995a). Overview *of the FY94 National Drug and Alcoholism Treatment Unit Survey (NDATUS): Data From 1993 and 1980–1993.* Rockville, MD: U.S. Department of Health and Human Services.

Office of Applied Studies. (1995b). *Overview of the National Drug and Alcoholism Treatment Unit Survey (NDATUS): 1992 and 1980–1992.* Rockville, MD: US Department of Health and Human Services.

Robins LN; Helzer JE; Cottler LB; and Goldring E. (1989). NIMH Diagnostic Interview Schedule Version III Revised (DIS-III-R). St. Louis: Department of Psychiatry, Washington University School of Medicine.

Royce JE. (1981). *Alcohol Problems and Alcoholism.* New York: The Free Press.

Schlesinger M; Dorwart RA; Epstein S; and Clark R. (1991). *Need, Capacity, and Public Choice: Variations in Treatment for Drug Abuse Among the Largest American Cities.* NIDA Treatment Services Research Monograph. Rockville, MD: National Institute on Drug Abuse.

Siegel PZ; Waller MN; Frazier EL; Mariolis P; and State Coordinators for Behavioral Risk Factor Surveillance System. (1993). Behavioral Risk Factor Surveillance System: Summary of data for 1991. *MMWR Morb Mortal Wkly Rep* 42: 23–30.

Sterne MW; Pittman DJ; and Coe T. (1967). Teen-agers, drinking, and the law: A study of arrest trends for alcohol-related offenses. In: Pittman DJ, Ed. *Alcoholism.* New York: Harper & Row.

Substance Abuse and Mental Health Services Administration (SAMHSA). (1993). *State Resources*

and Services Related to Alcohol and Other Drug Abuse Problems, Fiscal Year 1991: An Analysis of State Alcohol and Drug Abuse Profile Data. Rockville, MD: U.S. Department of Health and Human Services.

Substance Abuse Funding News. (1999). Arizona Finds Drug Treatment, Not Prison, Is the Best Medicine. *Substance Abuse Funding News*, May 3, 1999, pp. 1-2.

U.S. Bureau of the Census, Population Division, Population Estimates Program. (1996). *ST-96-1 Estimates of the Populations of States: Annual Time Series, July 1, 1990 to July 1, 1996.* Washington, DC: U.S. Bureau of the Census.

U.S. Department of Health and Human Services, Public Health Service and Health Care Financing Administration. (1980). ICD-9-CM: International Classification of Diseases - 9th Revision - Clinical Modification, Second Edition. Washington, DC: U.S. Government Printing Office.

U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA). (1993). *Traffic Safety Facts 1993, State Alcohol Estimates.* Washington, DC: NHTSA.

Wilson RA; Malin HJ; and Lowman C. (1983). Uses of mortality rates and mortality indexes in planning alcohol programs. *Alcohol Health Res World* 8:41–53.

Yu J and Williford WR. (1993). Problem drinking and high-risk drinking: An analysis of official and self-reported drinking-driving in New York State. *Addiction* 88:219–228.

RESULTS WITHIN OUR REACH

Alaska State Plan for Alcohol and Drug Abuse Services

1999-2003

Cover Photo

With thanks and grateful acknowledgement to

Stan Marsden and the people of Craig, Alaska.

Their unique partnership in creating

THE HEALING HEART TOTEM

offers hope and inspiration to all Alaskans.

(Photo by Anne Schultz)

State of Alaska
Advisory Board on Alcoholism and Drug Abuse
240 Main Street, Suite 101
Juneau, AK 99801
907 465-8920 ✦ 888 464-8920

Message from the Chair

DT: January 1999

TO: Fellow Alaskans

FR: Cheryl Mann, Chair
Advisory Board on Alcoholism and Drug Abuse

RE: Partnerships for a Healthy Alaska

There is no greater foundation for the implementation of this new state plan for delivery of alcohol and drug abuse services than partnerships at the local, regional or state level. You will find the creation of partnerships and the nurturing of new coalitions to be a common thread throughout this plan.

One of the enduring values of partnership development is that frequently more intangible resources are required than funding resources. Commitment, time and sharing of leadership are some of the most vital requirements. When Alaskans give freely of these assets, from themselves and their organizations, we will be able to stretch existing resources and focus new resources on our most urgent needs in the most beneficial and cost effective ways.

The Advisory Board can take great pride in its ground-breaking work in establishing treatment outcomes and raising awareness among providers and allied health professionals. Over the next decade we will continue to firmly embrace our mission to significantly reduce the devastating consequences of substance abuse on individual Alaskans, families and communities.

We invite each of you to find ways in which you can be a partner in achieving that desired result. If we can help you to identify other individuals and organizations that share your concerns please be sure to ask for our assistance.

Advisory Board on Alcoholism and Drug Abuse
PO Box 110608
Juneau AK 99811-0608

The Advisory Board's toll free telephone number is 1-888-464-8920. Assistance may also be requested by e.mail to Anne_Schultz@health.state.ak.us

Advisory Board Roster

As of January 1999, the Advisory Board on Alcoholism and Drug Abuse is composed of the following members, appointed by the Governor:

Cheryl Mann, Anchorage CHAIR

Gerry Kasiak, Ketchikan CHAIR-ELECT

Delfin Lopez, Sterling RECORDER-TREASURER

Sebastian Cowboy, St. Marys

C. Joe DiMatteo, Anchorage, appointed December 1998

Donna R. Galbreath, Fairbanks

Alice Johnstone, Sitka

Loren Jones, Juneau

Anne Kinter, Juneau, appointed December 1998

Banarsi Lal, Fairbanks

Henrietta Nugen, Wasilla

Don Peter, Fort Yukon

Valerie M. Therrien, Fairbanks

Eric Tomasino, Palmer

Cristy Willer Tilden, Dillingham

The Advisory Board acknowledges the contributions made to the strategic planning process by members whose terms expired or who moved from Alaska before the plan was completed: Roseanne Turner, Anchorage; and Suzanne Drapeaux, Juneau.

Mission and Guiding Principles

MISSION

In partnership with the public, the Advisory Board on Alcoholism and Drug Abuse plans and advocates for policies, programs and services that help Alaskans achieve healthy and productive lives, free from the devastating effects of the abuse of alcohol and other substances.

✦✦✦✦✦

GUIDING PRINCIPLES

The philosophy of the Advisory Board on Alcoholism and Drug Abuse is to create an environment in which individuals can explore and expand their human potential by recognizing that:

1. Alaskans have the right to seek a life free of the devastating effects of alcohol and substance abuse.
2. The fatal diseases of alcoholism and drug addiction are both preventable and treatable.
3. Sobriety is a positive lifestyle choice for Alaskans.
4. Prevention is as important a public health concern as treatment is.
5. Services must respect personal and community needs in a holistic way that acknowledges cultural and gender differences.
6. Rights and dignity of the client must be respected at all times.
7. Best practice standards must be used by those who provide treatment and prevention services.
8. Success will be measured by improvement in health and well-being and by the elimination of substance abuse and the harm it causes.
9. Partnerships between communities, public and private organizations, families and individuals are the key to success in fulfilling our mission.
10. All decisions and actions must focus on positive impacts on future generations.

Executive Summary

Results that will significantly reduce the negative consequences of alcohol use by Alaskans is the focus of **Results Within Our Reach,** the Alaska state plan for alcohol and drug abuse services. The plan covers the years 1999-2003.

A statewide work group with expertise from many disciplines joined the Advisory Board as stakeholders in this planning effort. They brought commitment and urgency to the development of this plan. The group was able to build upon the solid foundation laid in **Meeting the Challenge,** the strategic plan for the Division of Alcoholism and Drug Abuse published in 1994.

This plan reflects the Advisory Board's commitment to results-based service delivery. It incorporates the use of indicators, strategies and performance measures that will help to monitor service delivery effectiveness.

The Advisory Board framed the process by identifying its mission and guiding principles. These emphasize the necessity for public awareness of the scope of the problem, a broad range of partnerships and personal responsibility. To ascertain attitudes of key informants throughout the state, the Advisory Board asked more than1,000 stakeholders to indicate their level of agreement with statements about alcohol and drug abuse issues. More than fifty percent responded, with remarkably favorable levels of agreement. The Board is confident that this plan is well grounded and reflects community awareness of the scope of the problem it seeks to remedy.

This plan focuses on the overarching result desired for all Alaskans: that they live free from the negative consequences of alcohol and other drug use. It identifies six indicators that will be used to track progress over the coming years. Each is supported by sufficient data collection to calculate trends over time. The Advisory Board looked to staff of the Division of Alcoholism and Drug Abuse for the collaborative development of strategies and performance measures with which to implement the plan. Public testimony was solicited. Eighteen strategies emerged, each with a set of performance measures. The strategies recognize the essential role partnerships play in changing attitudes, behaviors, and community norms. The strategies identify special populations that require greater service capacity, accessibility and intensity. A specific strategy addresses the needs of chronic alcoholics with psychosis, who are beneficiaries of the Alaska Mental Health Trust.

In order to walk the walk that is talked about in the plan, continuous attention must be paid to data development. The Data Agenda section gives a comprehensive review of the benefits and constraints of data collection and spells out the additional

data that will be required in the future. This ongoing data collection effort is imperative if the plan is to achieve its desired level of accountability.

The prevention and treatment strategies identified in the plan will be implemented by the Division of Alcoholism and Drug Abuse, which has responsibility for managing service delivery in Alaska. The Division's Request for Proposals (RFP) process will incorporate strategies implementation into funding allocation decisions. Successful grantees will develop proposals that reflect the Division's guidelines and this plan.

Both the Advisory Board and the Division will work assertively to ensure wide distribution of the plan during the coming months.

The Division will monitor performance measures to assess the level, quality and effectiveness of effort. Over the next several years the Division and the Board will be able to ascertain the effectiveness of selected strategies. This monitoring will guide course corrections during the updating of the plan as the year 2003 approaches.

Each year the Advisory Board will collect the required indicator data to determine the extent to which the strategies have influenced desired results. The Board undertakes this process being mindful that it will be necessary to view data over time before definitively assessing effectiveness over the long term.

The Advisory Board will work with the Department of Health and Social Services, Alaska Mental Health Trust Authority and the Trust's other beneficiary advocacy boards to ensure an effective integration of this plan into the Comprehensive Integrated Mental Health Plan for the state.

Background

Strategic planning is an ongoing process. Each phase builds on previous work and lays the foundation for future planning efforts. In 1994, the Alaska Division of Alcoholism and Drug Abuse published a comprehensive strategic plan, **Meeting the Challenge: A Strategic Plan for the Division of Alcoholism and Drug Abuse**. This plan identified trends in the external environment as well as goals and strategies for the Division in the 1990s.

The 1994 plan focused on four major trends that would affect the Division and service delivery through the end of the decade.

- Level and extent of alcohol, other drug, and inhalant abuse in Alaska;
- Special needs and barriers for specific populations such as rural residents, pregnant women, persons with co-existing mental illness, and women with dependent children;
- Funding sources and restrictions; and
- Increased emphasis on service delivery outcomes.

A series of strategies and goals were developed to address the needs of Alaskans within the context of these trends. As predicted, these trends have played a major role in program development and service delivery in the latter part of the decade. Furthermore, these factors are predicted to play an even greater role in the future.

Of the four major trends, the emphasis on outcomes is a pivotal factor in both program development and funding allocation. In 1996, the Division of Alcoholism and Drug Abuse and the Advisory Board on Alcoholism and Drug Abuse brought together a workgroup to identify desired outcomes for both treatment and prevention efforts. In the Request For Proposals (RFP) issued in 1997, the Division mandated the use of outcome targets along with more traditional process measures. To support this move, standardized outcome measures were developed. They are currently being incorporated into the Division's management information system (MIS).

In 1994, the Mental Health Lands Trust claims were settled after years of litigation. The Alaska Mental Health Trust Authority was formed. Its Trustees are charged by statute with managing the assets of the Trust, and providing resources for services to beneficiaries. Trust beneficiaries are defined as Alaskans who experience one or more of the following:

- a mental illness;
- mental retardation or similar disability;
- Alzheimer's disease or related dementia;
- chronic alcoholism with psychosis.

Four boards are responsible for addressing the needs of these beneficiary groups: the **Alaska Mental Health Board**, the **Governor's Council on Disabilities and Special Education**, the **Alaska Commission on Aging** and the **Advisory Board on Alcoholism and Drug Abuse.**

The Advisory Board on Alcoholism and Drug Abuse plans and advocates for the needs of chronic alcoholics with psychosis. It also plans and advocates for substance abuse service needs of all Alaskans. To fulfill these responsibilities, the Advisory Board has completed this 12-month strategic planning effort. Many Alaskans have made valuable contributions to the process.

First, the Board invited a group of 25 Alaskans with special interest and expertise in substance abuse issues to participate in the Strategic Planning Work Group. They met initially in September 1997 for orientation to the Advisory Board's guiding principles and mission, and to become acquainted with the results-based model developed by Mark Friedman. Mr. Friedman is a policy consultant to the Alaska Legislature, the Office of Management and Budget, and the Alaska Mental Health Trust Authority. The work group participants are gratefully acknowledged in Appendix A.

To test the assumptions on which to base the revised plan, the Advisory Board sent a fifteen-question survey to more than 1,000 key informants throughout the state. With a response rate of 51%, the results indicated an overwhelming sense that substance abuse, particularly alcoholism, is the most pressing health problem in the state.

The Work Group formed three teams: the Results Team, the Indicators Team, and the Strategies and Performance Measures Team. Over a seven-month period, the teams developed a set of desired results and indicators, each team building on the work of the previous group. In July 1998, the full Advisory Board, Division of Alcoholism and Drug Abuse staff, and other key stakeholders jointly developed strategies and performance measures.

In this manner, the desired results, indicators of their achievement, strategies for success and performance measures were identified. With these key elements in place, sources of reliable data were examined and baseline data collection began. The draft plan was reviewed by the original Work Group in September 1998. Public testimony and comment were received in November and December 1998. This final document reflects the Advisory Board's plan based on those thoughtful and collaborative efforts.

About this plan...

This strategic plan will serve a number of purposes over the next four years. Most importantly, it will guide the Advisory Board and the Division in planning efforts to eliminate the negative consequences of alcohol and other drug use. It is the framework for continuing assessment of service needs throughout Alaska. It will help track the extent and quality of our efforts. Finally, it offers strategies that encourage stakeholders, clients, and communities to address issues forthrightly in ways that will achieve and sustain local benefits.

This plan is organized in the following manner:

The Model. The model was developed by Mark Friedman, of the Fiscal Policy Institute, Baltimore, Maryland. One of the compelling reasons for using this model is that it is also being used by other State agencies and the Legislature as a method for developing budgets and programs based on desired results.

Results and Indicators. Desired results are in this section. The indicators will measure progress toward achieving these results. Each indicator includes a graphic representation of recent trends and the source of the data used to create the chart or graph.

Strategies and Performance Measures. The strategies that have been selected to move us toward desired results are in this section. Each strategy includes a series of performance measures that will help chart progress.

Data Agenda. Some valuable data are not available. The data agenda identifies desirable data that support existing indicators and data that would support other potentially advantageous indicators.

Implementation. This section identifies the four distinct implementation efforts that are required in order for the plan to remain a useful tool over time.

Results and Indicators[1]

The beginning point for development of the strategic plan for alcohol and drug abuse services is to identify the desired results or outcomes. Appropriate strategies and performance measures flow from those results.

Results are conditions of well being in individuals, families, and communities, according to Friedman. Desired results are abstract and not easily measurable. They are also of an enduring nature. They are not expected to change quickly. These desired results will be the focus for the planning and service delivery effort at the state level over a period of years.

Indicators are markers that give some distinct indication of progress. These are measures for which data are readily available. While there are many sources and types of available data, only those measures that score high in data power, proxy power, and communication power are used.

Data power is an indication of the accuracy, availability, and consistency of data across the diverse regions of the state. It also takes into account the regularity with which the data is collected.

Proxy power is an indication of how well the data says something of central importance about the result.

Communication power is an indication of how well the indicator is understood by the desired audience. When the indicators are published, decision-makers as well as the general public must be able to make the connection between the results that are desired and the data reported.

[1] Mark Friedman, Fiscal Policy Institute, Turning the Curve, 1996

Desired Results

Alaskans live free from the negative consequences of alcohol and other drug use.

The Advisory Board's vision of a healthy, productive, and happy society is one that is free from the negative consequences of alcohol and other drug use. The foundation of this plan rests on the Board's commitment to significant reduction in those negative consequences. The consequences are apparent in per capita consumption, DUI convictions, alcohol or drug related convictions, alcohol-related injuries, 12-hour protective custody holds and the rate of binge or chronic drinking by adults.

Other desired results:

- ***Alaskans are physically, mentally, spiritually, and emotionally healthy and are engaged in health lifestyles to sustain well being.***
- ***Alaskans are safe in their homes and communities.***
- ***Alaskans achieve their highest possible level of self-sufficiency.***
- ***Alaskans live with dignity and respect as valued members of their families and communities.***

Indicator One

Per capita consumption of alcohol.

The rate of consumption per person, 14 years and older, based on excise taxes collected at the wholesale level.

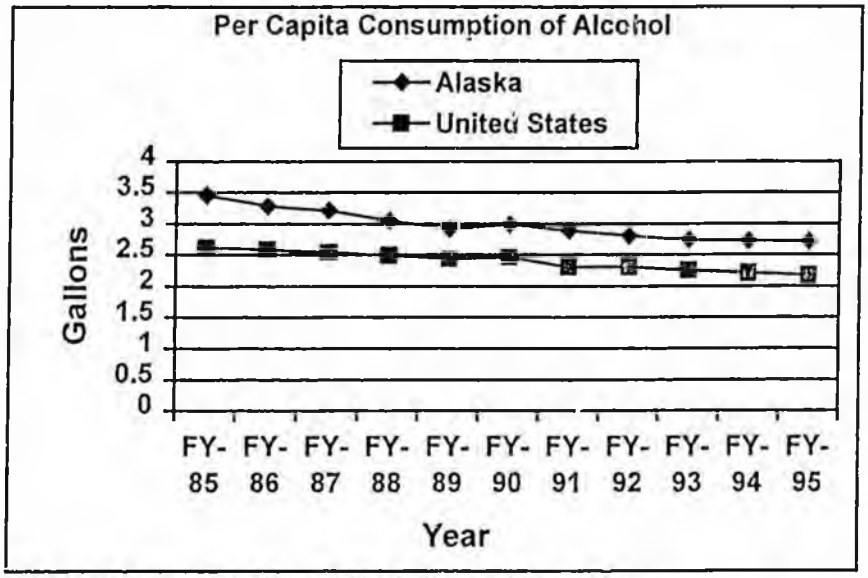


Figure 1 Source: Division of Alcoholism and Drug Abuse

The story behind the indicator headline...

The prevalence and severity of alcohol-related problems among Alaskans is directly related to the amount of alcohol consumed. The data, as collected, are based on total alcohol purchased at the wholesale level and the number of Alaskans who are 14 years of age and older. If this number were adjusted downward to remove those who completely abstain from alcohol, then per capita consumption would be greater. Although the figure for Alaska is higher than the national average, both sets of data indicate that consumption is decreasing. The population data does not acknowledge the state's significant visitor population. The consumption decrease by Alaska residents may be even greater than shown. The strategies that impact this indicator most readily are those that address public policy issues such as the number of licensed outlets and their hours of operation.

Indicator Two

Number of convictions for Driving Under the Influence of alcohol (DUI).

The number of convictions in state district and superior courts on charges of driving while under the influence of alcohol.

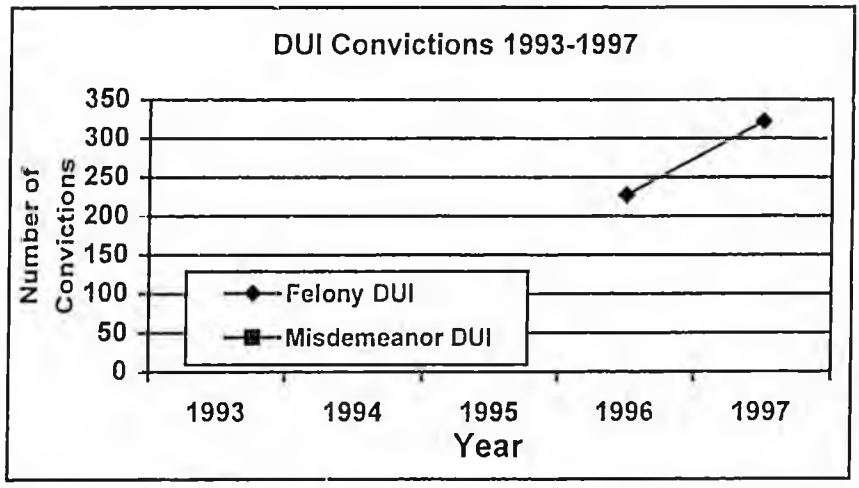


Figure 2 Source: Alaska Court System

The story behind the indicator headline...

Driving while under the influence of alcohol is one of the strongest indicators of the negative consequences associated with alcohol misuse. Data for 1997 show that 30 percent of all automobile accident fatalities had alcohol or drugs as the major contributing factor[2]. There are many variables that impact this data, including enforcement effort and prosecutor case loads. The data correlate with successful prevention efforts, particularly in terms of public awareness of the consequences of Driving Under the Influence (DUI). Driving under the influence of alcohol impacts lives, not only in accidents, injuries, and deaths, but also in family suffering, employment problems, and social functioning. Persons convicted of DUI also represent one of our most well defined target populations: individuals whose use of alcohol has directly caused negative consequences. DUI convictions are categorized by both felony and misdemeanor offenses.

[2] Alaska Department of Transportation and Public Facilities, 1997 Alaska Traffic Accidents, July 1998

Indicator Three

Number of state criminal convictions on alcohol or drug-related charges.

The number of convictions on charges which include possession or distribution of drugs, misconduct involving alcohol or other drugs, and failure to take a breath test. The indicators are based on data published by the state court system and do not include arrest data that does not result in convictions.

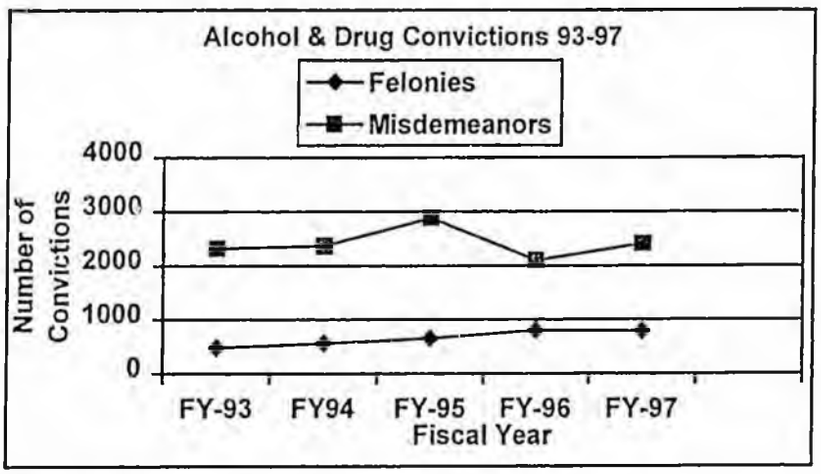


Figure 3 Source: Alaska Court System

The story behind the indicator headline...

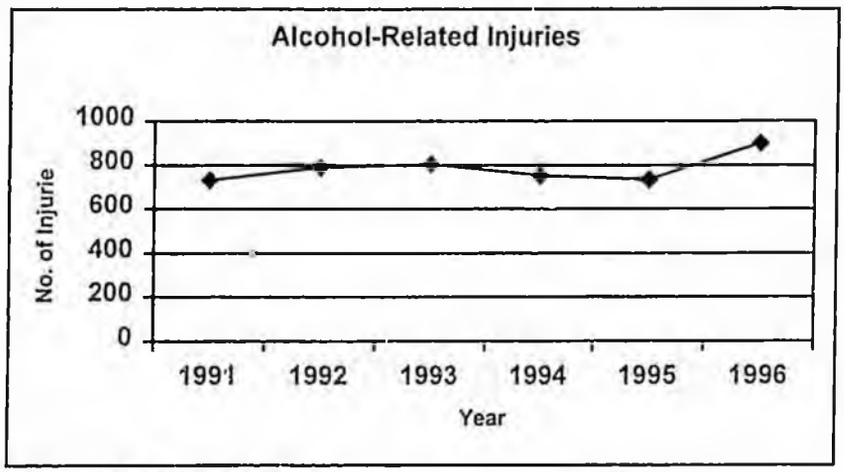
Convictions for drug and alcohol-related offenses, like DUI convictions, offer a clear picture of the negative consequences of use of alcohol and other drugs. Between fiscal years 1993 and 1997, felony convictions increased from 478 to 791. Misdemeanors have varied but show no clear increase or decrease trends. There are a number of factors that may impact this indicator including State Trooper and local police department enforcement, changes in laws, and prosecution efforts. Intervention and treatment services play a major role in decreasing the amount of alcohol and drug-related crime. Collaborative efforts have demonstrated that early intervention and appropriate, timely treatment for offenders can reduce the number of alcohol and drug-related crimes.

Indicator Four

Alcohol-related injuries requiring hospitalization.

Injuries treated in a hospital for which alcohol was determined to be a contributing factor.

Figure 4



Source: Alaska Trauma Registry

The story behind the indicator headline...

Injuries involving the use of alcohol represent a significant and costly negative consequence. The Alaska Trauma Registry, which collects information from every hospital in the state, tracks all injuries requiring hospitalization. It has special fields within its database to indicate the involvement of alcohol. The number of injuries seemed to peak in 1993 and start a downward trend. However, the number of injuries in 1996 showed a sharp increase. These injuries typically involve young people. They affect the injured individuals, families, and sometimes entire villages. They require the most expensive level of medical care: that provided in an emergency department or trauma center. The efforts that are most likely to impact this indicator are those which seek to restrict access to alcohol or other drugs through public policy advocacy. A recent study indicated that Alaska Natives living in "wet" villages were almost three times more likely to die from an alcohol-related injury than those living in "dry" villages[3]. Early intervention and treatment services have also been shown to have a positive impact on this indicator.

[3] Alaska Child Protection Review Team, Report to the Governor, 1997

Indicator Five

The number of 12-hour protective custody holds.

The number of alcohol-incapacitated persons held in protective custody for up to 12 hours at State correctional facilities or community jails.

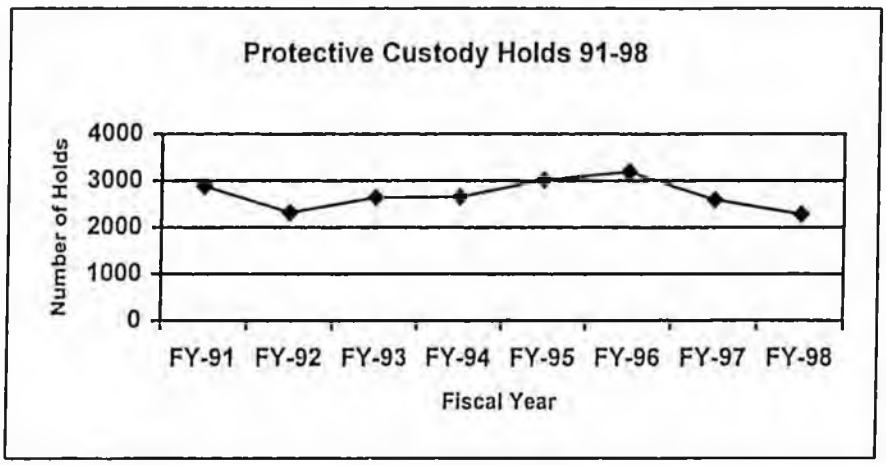


Figure 5 Source: Alaska Department of Corrections

The story behind the indicator headline...

Alaska Statute 47.37 provides that persons incapacitated by alcohol may be taken into custody in order to protect them and others from the negative consequences of their incapacitation. If suitable detoxification facilities are not available, they are taken to Department of Corrections facilities. They are held until protective custody is no longer necessary or up to twelve hours. As treatment programs work with communities to provide more appropriate services and timely interventions, the number of protective custody holds decreases. During 1995 and 1996, the Division of Alcoholism and Drug Abuse began to place more emphasis on early intervention for late stage, chronic alcoholics. This is the population most likely to require protective custody. Additional resources for detoxification have expanded community response. As a result, the number of protective custody holds has begun to decrease. During this period, the Advisory Board conducted training on the use of involuntary commitment of persons whose alcoholism is life-threatening. Community partnerships, resource expansion and community training in involuntary commitment procedures are contributing to the reduction in 12-hour protective custody holds.

Indicator Six

The rate of binge or chronic drinking by adults.

The percentage of Alaskans who self report acute or binge drinking in response to the annual Behavior Risk Factor Survey.

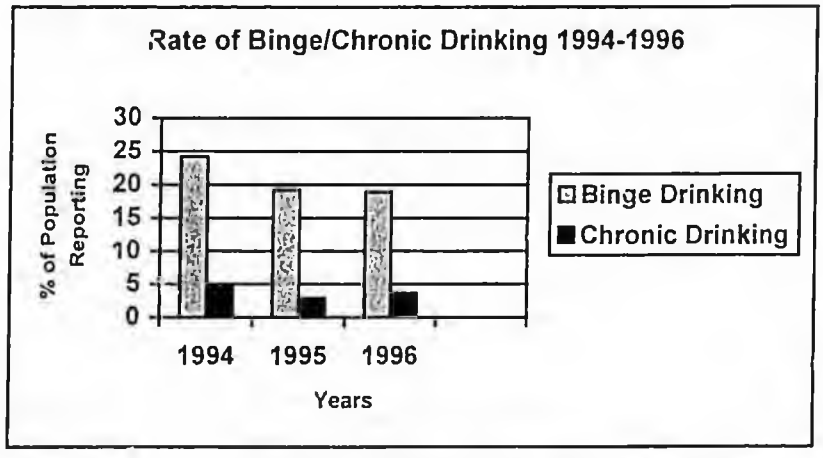


Figure 6 Source: Alaska Behavioral Risk Factor Surveillance System

The story behind the indicator headline...

Each year, the State of Alaska conducts a telephone survey to obtain information on behavioral risks prevalent among Alaskans. The interviews are conducted with a random sample of 1,535 residents, 18 years of age or older. One of the categories is the percentage of population engaged in binge or chronic drinking. **Binge drinking**, for purposes of this survey, refers to drinking five or more drinks on one occasion, at least once in the month preceding the survey. **Chronic drinking** refers to drinking an average of 60 or more alcoholic drinks in the month preceding the survey. There is a high correlation between these drinking patterns and many of the negative consequences associated with alcohol abuse – particularly medical, family, and employment problems. The strategies that will have the most immediate impact on this indicator will be those that provide intervention and treatment services to chronic, late stage alcoholics. Early intervention services are also required to impact individuals whose disease progression has not reached the point of chronic or binge drinking.

Three sets of strategies converge to drive the plan's implementation. No single strategy is most important. The overarching focus is on partnerships, both community-based and statewide. Partnerships play a key role in the delivery of both prevention and treatment services. There is a major commitment to decreasing the negative consequences of alcohol and drug abuse by ensuring access to the appropriate range of quality treatment services for all Alaskans who need them. Additionally, we know that multiple strategies consistently targeting various populations over periods of time are more effective than strategies with a single focus.

Strategy One

Support community-based processes that build partnerships and provide more effective prevention and treatment services.

What this means...

Partnerships and collaboration are the keys to success in achieving desired results. If partnerships and collaboration are to become more than lofty goals, then communities must provide processes that nurture them. These processes include needs assessments, planning for services, integrated activities, and broad-based evaluation. Programs and activities must be relevant to the particular community. They must be conducted in a manner that respects community norms and values.

How will we measure our performance?

Performance Measure 1:	Number of agencies and groups participating.
Performance Measure 2:	Extent of participation in effort.
Performance Measure 3:	Number of new initiatives.
Performance Measure 4:	Percentage change in desired community results.

Strategy Two

Encourage activities and initiatives that will change community standards and emphasize healthy lifestyles.

What this means...

Community behaviors and activities usually reflect local standards and attitudes. These are "unwritten rules" that define what is appropriate or tolerable. Shaping these norms and values is an evolutionary process. One of the most familiar results of such a strategy is the decline in tolerance for driving under the influence of alcohol. Mothers against Drunk Drivers (MADD) started out as a small local advocacy group. Thousands of local initiatives have brought about sustained positive change because of MADD's vision and persistence. The Advisory Board will support and nurture programs that seek to influence the standards and attitudes of communities by encouraging and promoting sobriety as a healthy lifestyle choice.

How will we measure our performance?

Performance Measure 1:	Number of agencies, groups, and individuals involved in proactive partnerships.
Performance Measure 2:	Extent of participation in effort.
Performance Measure 3:	Number of new initiatives and diversity of support.
Performance Measure 4:	Percentage change in desired community results

Strategy Three

Distribute useful and effective information to targeted populations.

What this means...

The Advisory Board will encourage distribution of accurate and relevant information to help policy makers, individuals, families, and communities make wise decisions. All available research indicates that for information to be effective its message must address a specific audience. It must be relevant for particular age groups and cultures. It must be developed with a clear understanding of the desired response. Examples of this strategy are distribution of new research findings and outcome information to policy makers, promotion and advertising of available treatment services, and public information campaigns targeted to women of childbearing age.

How will we measure our performance?

Performance Measure 1:	Quantity of material developed and/or distributed.
Performance Measure 2:	Quality of material for a particular target audience.
Performance Measure 3:	Number of target group members reached.
Performance Measure 4:	Percent of target group with increased awareness.

Strategy Four

Promote the benefits of treatment, recovery, and sober lifestyle.

What this means...

Despite best efforts and positive outcomes for treatment services, members of the general public often have negative attitudes about the value and appropriateness of chemical dependency treatment. The Advisory Board will support efforts and strategies that raise public awareness of the positive benefits of chemical dependency treatment, recovery, and a life of sobriety. The Board will work to eliminate stigma and denial. Examples of these strategies include program alumni organizations, public awareness campaigns, and advocacy for recognition of the contribution the sober lifestyle makes to the welfare of all Alaskans.

How will we measure our performance?

Performance Measure 1:	Number of self-referrals.
Performance Measure 2:	Increased number of advocacy groups.
Performance Measure 3:	Cost-benefit data.
Performance Measure 4:	Positive benefits of treatment – in life domain areas of health, family, self-sufficiency, and transportation.

Strategy Five

Encourage traditional and alternative social activities that are alcohol and drug free.

What this means...

Alaskans are frequently encouraged to consume alcohol and other substances at social, athletic and other community events. In addition to providing safer and healthier alternatives for youth, alcohol and drug free activities can also help redefine community norms and values to those that support sobriety. The Advisory Board will support efforts that offer organized alcohol-free and drug-free activities involving a broad spectrum of the community.

How will we measure our performance?

Performance Measure 1:	Number of alternative activities developed and delivered.
Performance Measure 2:	Percent of target population participating.
Performance Measure 3:	Number of target group involved in planning and implementation.
Performance Measure 4:	Percent of activities initiated and/or led by target group.

Strategy Six

Advocate for positive change through legal and regulatory initiatives.

What this means...

All available research points to the conclusion that public policy decisions regarding alcohol and other substances have a major impact on the prevalence and severity of substance abuse problems in communities. Examples of such policy decisions are raising the minimum legal drinking age to 21 and lowering blood alcohol legal limits for drivers. Other legal and regulatory initiatives include limiting bar and tavern hours, restricting the number of alcoholic beverage outlets in an area, supporting enforcement of existing laws, and consistent consequences for youth who engage in use of alcohol or other drugs. A less obvious benefit of these strategies is the positive impact on community norms and values. As these initiatives impact public policy decisions, communities become more aware of the negative consequences associated with alcohol and drug abuse.

How will we measure our performance?

Performance Measure 1:	Number of initiatives introduced as legislation or local ordinances.
Performance Measure 2:	Variety of responses that indicate support, such as public opinion messages, letters, telephone calls.
Performance Measure 3:	Number of such initiatives passed.
Performance Measure 4:	Percentage change in desired community results.

Strategy Seven

Ensure the delivery of quality services by offering appropriate continuing education and training for chemical dependency treatment professionals.

What this means...

High quality service delivery depends on recruitment and retention of well-qualified treatment professionals. The Advisory Board will support funding for training programs, a statewide training coordination agency, programs which provide training components, and annual training events. The Board will support the certification process for chemical dependency professionals to ensure that persons providing services hold the highest qualifications. The Board will also support an accreditation process for programs which mandates high levels of qualification for professional staff.

How will we measure our performance?

Performance Measure 1:	Increase in the number of certified counselors in Alaska.
Performance Measure 2:	Increase in the number of certified counselors working in the field.
Performance Measure 3:	Salaries for chemical dependency professionals that are comparable to others performing comparable work.
Performance Measure 4:	Reduction in rate of staff turnover.
Performance Measure 5:	Increase in staff training opportunities.
Performance Measure 6:	Greater collaboration with post-secondary and other training systems.

Strategy Eight

Expand awareness of substance abuse issues for allied health professionals, educators and other helping agents.

What this means...

If related service or education providers are to deliver consiste. appropriate, and accurate information to target populations, they must first recei ie most recent factual information. Programs to implement this strategy range from an organized regimen of in-service training to carefully designed formal course curricula for professionals. With a strong emphasis on collaboration, it is critical to consider a wide diversity of professionals including

- medical staff and other health care professionals;
- domestic violence advocates;
- educators, teachers and aides
- mental health professionals;
- senior services providers;
- disability services providers;
- public assistance caseworkers and employment specialists
- juvenile and adult corrections staff;
- family service workers.

How will we measure our performance?

Performance Measure 1:	Number of target group participating in training.
Performance Measure 2:	Percentage of target group completing training.
Performance Measure 3:	Number of target group showing increased knowledge and awareness.
Performance Measure 4:	Percent of target group positively impacted as shown by pre/post tests.

Strategy Nine

Use education strategies to help youth improve critical life and social skills.

What this means...

Research indicates that development of life and social skills is more effective than didactic drug and alcohol education in helping young people avoid high risk behaviors. The Advisory Board will support programs that offer education and skill-building activities targeted to youth. These programs will help youth make appropriate decisions and avoid activities and behaviors with negative consequences. Multiple strategies that are age, culture, and gender specific are more effective than single, broad strategies. The education, information and messages targeted at youth must evolve with them as they mature.

How will we measure our performance?

Performance Measure 1:	Number of target group participating.
Performance Measure 2:	Number of target group completing.
Performance Measure 3:	Number of target group showing positive change or decrease in risk factors/increase in protective factors.
Performance Measure 4:	Percent of target group learning new skills, as shown by pre/post tests.

Strategy Ten

Identify people with problems as early as possible and refer them for appropriate services.

What this means...

This strategy is based on the premise that early problem identification and prompt action greatly enhances the likelihood of successful intervention. Programs that support this strategy would be located within organizations and agencies that are most likely to contact "at-risk" individuals at an early stage. Examples are schools, places of employment, and family and youth services. In these programs, individuals who are identified as "at-risk" for developing problems, or are engaging in behaviors that produce negative consequences, will be assessed and referred for appropriate services.

How will we measure our performance?

Performance Measure 1:	Number of at-risk individuals identified.
Performance Measure 2:	Percent of target group contacted.
Performance Measure 3:	Number of appropriate referrals made.

Strategy Eleven

Improve interdisciplinary coordination and collaboration at local, regional and statewide levels.

What that means...

Substance abuse professionals have a great stake in early problem identification. They recognize that they are usually not in the best position to identify these problems and intervene early. They depend on the abilities and collaboration of community members, helping agents, and other professionals to recognize the behaviors and symptoms and make prompt appropriate referrals. The Advisory Board will support efforts that foster collaboration among the various groups of professionals and programs in communities. These efforts wi' lead to earlier intervention and more appropriate treatment plans for clients.

How will we measure our performance?

Performance Measure 1:	Increase in number of referrals to and from providers.
Performance Measure 2:	Increase in number of referral services to and from providers.
Performance Measure 3:	Referral sources report improved outcomes.

Strategy Twelve

Support a continuum of care for chronic alcoholics with psychosis that focuses on intervention, treatment and the client's long term life domain requirements.

What that means...

Chronic alcoholics with psychosis are beneficiaries of the Alaska Mental Health Trust, established in Alaska Statute 47.30.056(b)(3). The Advisory Board on Alcoholism and Drug Abuse has a special responsibility to this group, described in AS 44.29.140. The Advisory Board must provide the Alaska Mental Health Trust Authority with specific recommendations to ensure that the service needs of chronic alcoholics with psychosis are met.

Chronic alcoholism is a problem that pervades every part of Alaskan life. It places an excessive burden on scarce medical, legal and public safety resources. Use of alcohol by chronic alcoholics with psychosis destroys their physical health and emotional and spiritual well-being. It seriously damages family and community life. This population has traditionally been underserved by health and social service agencies. The state has both a legal and moral responsibility to provide comprehensive and coordinated services for this population. These services must be delivered with respect for clients and their families, in a manner that ensures positive, measurable results.

How will we measure our performance?

Performance Measure 1:	Increase in treatment capacity and services for chronic alcoholics with psychosis.
Performance Measure 2:	Increase in admissions to treatment for chronic alcoholics with psychosis.
Performance Measure 3:	Improved treatment retention and outcomes for chronic alcoholics with psychosis.
Performance Measure 4:	Increased availability of long term support services in life domain areas of health, housing, transportation and self-sufficiency.

Strategy Thirteen

Develop sufficient resources to meet community needs for appropriate levels of treatment for adults, youth and special populations.

What that means...

It is not possible to deliver every service component in every community. However, it is possible to have *access* to all components in a full continuum of care. Effective service delivery at the community level is determined by problem prevalence, demand, and service utilization. Examples of this strategy include establishment of detoxification facilities in hub communities, strategic placement of long term and domiciliary care facilities around the state, and development of special programs such as inhalant abuse treatment where appropriate. It is also critical that all providers understand the entire service delivery system and utilize the available resources in the best interests of clients and their families.

How will we measure our performance?

Performance Measure 1:	Increase in new services developed where needed.
Performance Measure 2:	Increase in number of communities seeking additional resources or services (financial or otherwise) using innovative approaches.

Strategy Fourteen

Identify and remove barriers that prevent clients from entering treatment.

What this means...

While some people are unwilling to seek treatment, many barriers prevent others from receiving the services that they want and need. Some of these barriers are present for all clients, such as waiting lists and financial resources. Other barriers reflect the lack of programs to address the needs of special populations. The Advisory Board will support those programs that implement strategies designed to remove barriers for those seeking treatment. Examples of these efforts include streamlined intake procedures, increased capacity based on prevalence and demand, and special programs where indicated.

How will we measure our performance?

Performance Measure 1:	Improved access, as reported in client satisfaction surveys.
Performance Measure 2:	Decreased time between first contact and admission to treatment.
Performance Measure 3:	Capacity to ensure that everyone who asks for treatment receives it.
Performance Measure 4:	Increased number of client admissions.

Strategy Fifteen

Support community efforts to establish involuntary commitment procedures and to use them when appropriate.

What this means...

For a small number of chemically dependent persons, timely and intensive services are necessary in order to prevent death. For this special population, involuntary commitment to treatment is the only remaining alternative. In order to use the involuntary commitment procedures defined by Alaska Statute 47.37, communities need to work together in collaborative partnerships. The Advisory Board will continue to support community efforts to organize and develop local plans and procedures for initiating involuntary commitments. These efforts include community training, funding for legal assistance, travel and transportation assistance, and technical assistance.

How will we measure our performance?

Performance Measure 1:	Increased number of involuntary commitments.
Performance Measure 2:	Improved treatment outcomes for those committed involuntarily.
Performance Measure 3:	Increased number of communities using involuntary commitment procedure when necessary.
Performance Measure 4:	Measurable reduction in inappropriate emergency services for public inebriates.
Performance Measure 5:	Reduction in number of 12-hour protective custody holds.

Strategy Sixteen

Provide appropriate services for underserved Alaskans.

What that means...

There are a wide variety of programs that address the chemical dependency treatment needs of Alaskans. However, a substantial number of special populations are not adequately served. These groups include:

- Alaska Natives;
- youth;
- women with children;
- seniors;
- dually-diagnosed clients;
- clients with disabilities.

Treatment success with these populations depends on program design uniquely appropriate to their needs. Examples of such programs include special services for poly-diagnosed clients, special programs for women with children, and Alaska Natives.

How will we measure our performance?

Performance Measure 1:	Increased capacity for underserved Alaskans.
Performance Measure 2:	Increased admissions of underserved Alaskans.
Performance Measure 3:	Improved treatment outcomes for underserved Alaskans.

Strategy Seventeen

Use relevant research to identify and incorporate key variables that contribute to successful treatment outcomes.

What this means...

It is often difficult to predict how any particular individual with chronic disease will respond to treatment. For many clients, certain variables are significant indicators for success. Examples of such variables are a strong post-treatment support system, employment opportunities, and alcohol/drug free housing. Monitoring emerging research and assessing the client with regard to key variables will increase the probability of client success. This strategy will require collaborative relationships with other helping professions. Many of the variables involve services and issues not directly provided by chemical dependency treatment programs. Examples of these efforts include drug and alcohol-free transitional housing, vocational and educational referrals, and services designed to strengthen families.

How will we measure our performance?

Performance Measure 1:	Decrease in relapse rates.
Performance Measure 2:	Percentage of clients with improvement in life domains.