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**1999
COMPREHENSIVE INTEGRATED
MENTAL HEALTH PLAN**



*Tony Knowles, Governor
State of Alaska*

*Karen Perdue, Commissioner
Alaska Department of Health and Social Services*

June, 1999

STATE OF ALASKA

DEPT. OF HEALTH AND SOCIAL SERVICES

OFFICE OF THE COMMISSIONER

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June 1999

Dear Alaskan:

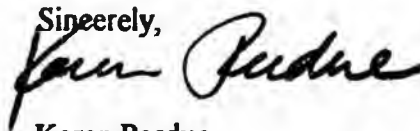
I am pleased to present the 1999 Comprehensive Integrated Mental Health Plan (CIMHP). In mandating this plan, the Alaska Legislature envisioned a practical document that would guide program funding decisions. The 1999 CIMHP represents the mid-point of a five year effort to realize this vision using a results based budgeting approach. The 1999 CIMHP also marks a significant milestone because it is the first plan to be used as a basis for justifying requests for program funding.

The 1999 CIMHP reflects two major enhancements over the previous year's document. First, this document contains new sections on strategies for achieving the desired results. These strategies are recommendations of the plan development team and reflect new or expanded efforts that should be considered by departments of the Executive Branch of State government, the Alaska Mental Health Trust Authority, the legislature and other agencies of State government. While the recommended strategies do not represent current policy of the Department, Trust, or legislature they hold promise of improving the health, safety, economic security and the quality of life of Alaskans and merit consideration for future direction. Second, a Data Development Agenda has been added to help identify and prioritize steps that need to be taken to strengthen our ability to measure need and understand the results our programs achieve.

I am very grateful to the generous commitment of time, expertise, information and effort to development of this plan by members of the public and the staff of many agencies and organizations. I would especially like to thank the multi-agency CIMHP Work which has worked with great deliberation to blend their diverse concerns into an increasingly more practical vision of how to improve the lives Trust beneficiaries.

A coordinated planning and evaluation process is essential to improving the lives of beneficiaries. As this comprehensive integrated planning process matures, we will continue to see improvements in the programs and in outcomes for Alaskans.

Sincerely,



Karen Perdue
Commissioner

COMPREHENSIVE INTEGRATED MENTAL HEALTH PLAN

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**Karen Perdue, Commissioner
Alaska Department of Health and Social Services
P. O. Box 110650
Juneau, Alaska 99801-0650**

INTRODUCTION

The Comprehensive Integrated Mental Health Program provides services and supports to Alaskans who are beneficiaries of the Mental Health Trust and to some individuals at risk of becoming beneficiaries. The beneficiaries include people with mental illness, developmental disabilities, Alzheimer's disease and related disorders, and chronic alcoholism with psychosis. During territorial days individuals with these conditions were often sent out of state for treatment provided for by the federal government. In 1956 Congress passed the Alaska Mental Health Enabling Act in 1956, which granted Alaska the administrative and fiscal authority to administer its own mental health program. This Enabling Act also included an endowment of a 1 million-acre Mental Health Lands Trust to address beneficiary needs.

In 1994 the Alaska Legislature created the Alaska Mental Health Trust Authority. This act gives the Trust Authority responsibility to "submit to the governor and the Legislative Budget and Audit Committee a budget for the next fiscal year and a proposed plan of implementation based on the integrated comprehensive mental health program plan." The act assigned responsibility for the development of this plan, the CIMHP, to the Department of Health and Social Services in conjunction with the Trust Authority. In addition, the law assigns to Alaska Mental Health Board, Governor's Council on Disabilities and Special Education, Advisory Board on Alcohol and Drug Abuse, and the Alaska Commission on Aging the responsibility to contribute to the CIMHP.

The Department of Health and Social Services and the Alaska Mental Health Trust Authority have adopted a results based budgeting approach to the Comprehensive Integrated Health Plan. This approach which focuses on the effectiveness with which programs improve the lives of beneficiaries, is expected to require five years to fully implement. The 1999 CIMHP is the third year of this process. Prior year efforts have led to the identification of five broad result areas which provide focus and direction to a program for improving the lives of beneficiaries. These result areas are:

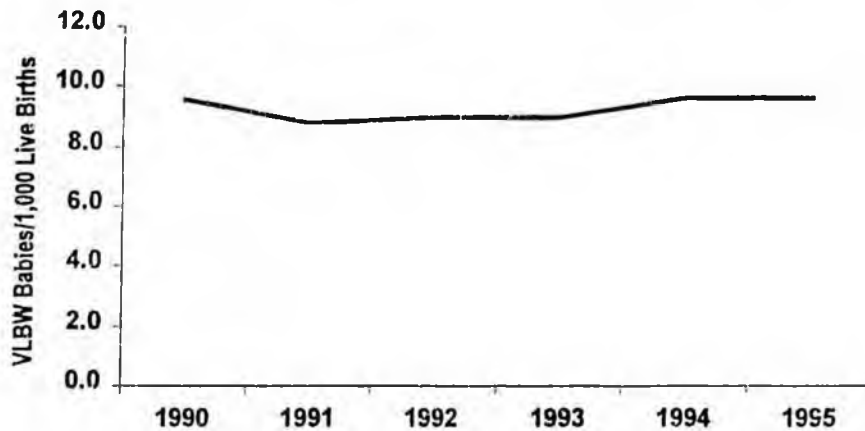
- Health
- Safety
- Economic Security
- Productively engaged, employed, contributing
- Living with dignity, to be valued members of society

Building on prior year efforts, this 1999 CIMHP presents an enhanced list of indicators that help monitor and measure the extent to which the overall program is achieving the desired results. Each set of indicators is accompanied by a discussion of the data and current efforts to achieve the desired results. The plan also outlines the expansion of existing strategies or the addition of existing strategies for consideration by departments of the Executive Branch, Alaska Mental Health Trust Authority and the Alaska State Legislature. These recommended strategies are do not reflect the current policy of the Department of Health and social Services. Finally a Data Development Agenda points to the most pressing needs in the area of gathering and managing data to better identify, understand and evaluate program efforts.

Result #1: HEALTH

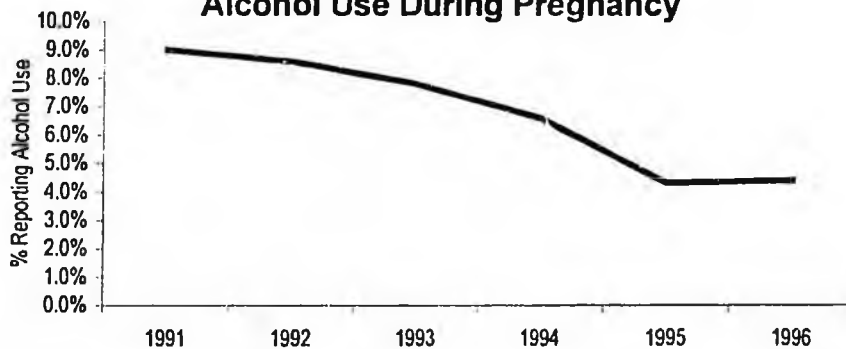
Indicator Baseline:

Very Low Birth Weight Babies: Alaska



Annual Reports (1988 - 1995), Alaska Bureau of Vital Statistics, Alaska Department of Health and Social Services, Juneau, Alaska

% of Alaskan Women Reporting Alcohol Use During Pregnancy



Annual Reports (1988 - 1996), Alaska Bureau of Vital Statistics, Alaska Department of Health and Social Services, Juneau, Alaska

The Story Behind the Baselines: Information on birth weight is collected from birth certificates by the Vital Statistics Section of the Department of Health and Social Services. Alaska has the lowest percentage of low birth weight babies in the nation. The percentage of babies born weighing less than 2,500 grams (5.5 pounds) was under 5.0% for the past ten years, although it has been increasing slightly each year since 1992. Children who are born with very low birth weights (<1,500 grams or 3.5 pounds) are at a greater risk of experiencing developmental disabilities. In 1995, the Center for the Future of Children reported that very low birth weight babies experience the following long-term effects:

School Age Intelligence:	30% - IQ score of less than 85
Neurosensory Impairments:	14% - 17% (cerebral palsy, blindness, deafness, etc.)
Behavioral Outcomes:	28% experience behavior problems
Health Outcomes:	37% will have had at least one surgery by age 8

Drinking during pregnancy is strongly linked to Fetal Alcohol Syndrome and Fetal Alcohol Effects, which result in a range of physical and behavioral disabilities.

An encouraging trend can be seen in the percentage of women reporting alcohol use during pregnancy. Between 1991 and 1996, the percentage of women reporting alcohol use dropped by more than 50%, from 9.0% to 4.4%. It is not clear whether the decrease is due to an actual decline in drinking during pregnancy. Alcohol use is a self-reported item on the birth certificate so the decrease may also be in part due to the growing awareness of the dangers of drinking during pregnancy and the stigma this may now cause. Alaskan businesses that sell liquor were required to display signs warning about drinking during pregnancy in the early 1990s.

Current Efforts to Turn the Curve: Alaska has a number of programs that have been addressing these public health problems, including the FAS Prevention Project, Supplemental Food Program for Women, Infants and Children (WIC), Healthy Families Alaska, Medicaid (EPSDT), and Public Health Nursing. Recent expansions in Medicaid eligibility have made it possible for more women to get prenatal care. Programs for women at risk of alcohol use during pregnancy include alcohol in-patient and outpatient treatment programs, specialized treatment programs for pregnant women and children, Healthy Families, and alcohol public education efforts. Public awareness efforts, including signs in bars and liquor stores and public service advertising

in the media also impact drinking behavior.

Recommended Strategies:

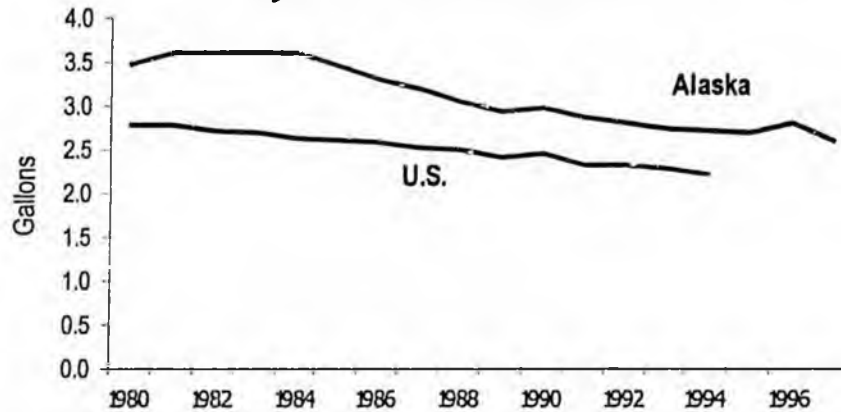
Expansion of Current Efforts

1. Media and public education campaigns directed at young women of childbearing age emphasizing the importance of good nutrition and not drinking or abusing drugs while pregnant or while trying to become pregnant.
2. Education programs for physicians and other health care providers emphasizing the importance of talking to pregnant women about the dangers of drinking and abusing drugs while pregnant.

Result #1: HEALTH

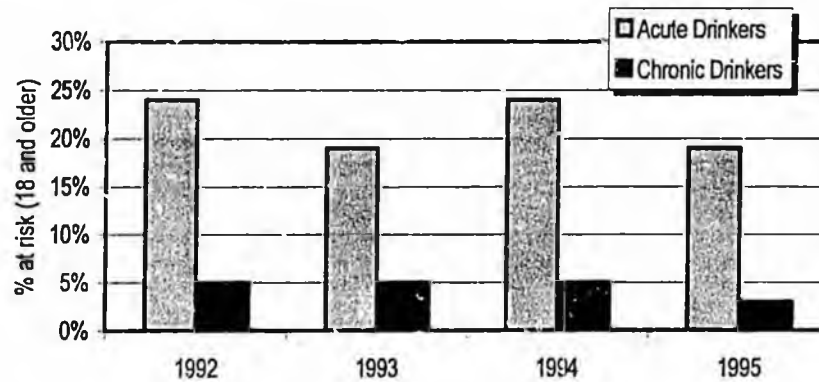
Indicator Baselines:

Per Capita Consumption of Taxable Alcohol by Persons 15 and Older



Annual Report, State of Alaska Advisory Board on Alcoholism and Drug Abuse, 1997

Acute and Chronic Drinkers: 1992 - 1995



Behavioral Risk Factor Survey (Annual Reports 1992 -1995), Alaska Department of Health and Social Services

The Story Behind the Baselines: Alcohol use in Alaska is higher than the national norm but the overall trend in consumption is downward. While there have been periodic upswings in total consumption, per capita consumption has dropped over the past twenty years. This decrease is surprising considering the growth of the tourism industry in Alaska (1.2 million visitors in 1996). Alcohol consumption figures are calculated using state population and in-state sales of alcoholic beverages. It is expected that this trend will continue through the year 2000.

The percent of Alaskans who are acute or binge drinkers seems to vary from one year to the next. Using 1992-1995 data on Alaskans who are acute or binge drinkers as a base, it appears that we can expect approximately 22% of Alaskans (18 and older) to fall into this category over the next five years. The percent of adults who are chronic drinkers remained at 5% from 1992 to 1994, then dropped to 3% in 1995. Data on acute and chronic drinkers is collected as part of the Behavioral Risk Factor Surveillance System (BRFSS). The purpose of BRFSS is to measure behavioral risk factors in the general population through a random sample telephone interview survey that is conducted monthly. The sample size is approximately 1,500 annually. In the BRFSS, acute drinking is defined as five or more drinks on an occasion, one or more times in the past month. Chronic drinking is defined as an average of 60 or more alcoholic drinks a month. Trends in acute and chronic drinking will become more apparent as more data is collected by the BRFSS.

In 1997 and 1998, the Gallup Organization conducted a household telephone survey for the Alaska Division of Alcoholism and Drug Abuse. More than 8,000 interviews were conducted. The study found that 9.7% of Alaskans 18 and older were dependent on alcohol and another 4.1% were alcohol abusers. In addition, the study found that there are differences in the level of alcohol abuse by region, as can be seen on the table below:

<u>REGION</u>	<u>Alcohol Dependent</u>	<u>Alcohol Abusers</u>
Urban	9.4%	4.1%
Gulf Coast	8.5%	3.9%
Southeast	10.5%	4.9%
Bush	11.9%	3.2%

The link between alcohol use and the development of chronic alcoholism is clear. Alcohol abuse is also associated with child abuse, crime, suicide, birth defects, occupational injury, accidental death, and the development of dementia. National mental health data indicates that more than 50% of individuals experiencing psychiatric disorder have a substance abuse disorder. In Alaska, data indicate that 80% to 90% of

"I tried to reach out to my family and tell them, "Look I have a problem, I need help." They blew me off. They said, "Oh well, you have a problem, deal with it."

Beneficiary
1998 Beneficiary Survey

"Public attitudes have changed. When I first came out here, if you talked about drinking or sobriety, people thought you called them something nasty and didn't want to hear about it. But now there are celebrations of sobriety and sober dances. And people are willing to talk about something that's a problem. But they talk - not just saying it's a problem and everything's bad, but this is something that can be solved."

Beneficiary
1998 Beneficiary Survey

those experiencing psychiatric disorder have a co-occurring substance abuse disorder. The estimated number of adults with serious mental illness is 29,800.

Current Efforts to Turn the Curve: Reducing the number of people in the late stages of alcohol addiction requires a multi-faceted approach. At the individual treatment level, programs providing long-term services and support are essential. Correctional system treatment programs for alcohol and drug abuse can reduce post-release criminality and alcohol/drug abuse relapse. At the policy level, alcohol sales and consumption can be regulated to lower abusive drinking within the state or community. Strategies include prevention programs for young people (peer helpers, community suicide prevention programs, school health curriculum), alcohol taxation, and reducing alcohol-related problems by limiting access or availability of alcohol through pricing, zoning laws or license requirements.

Recommended Strategies:

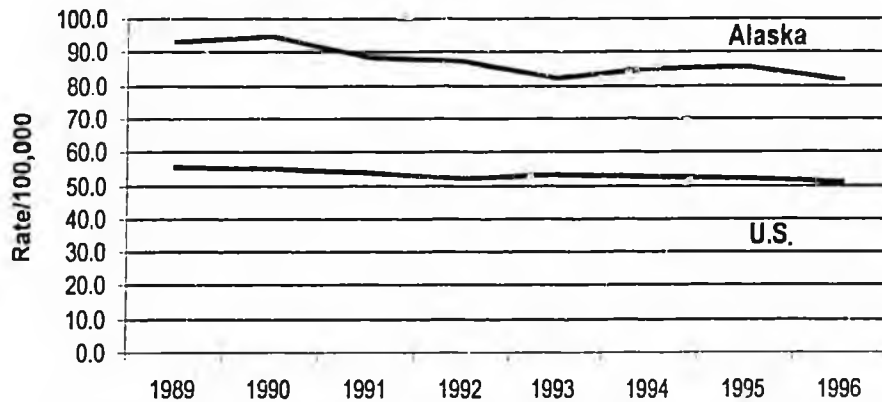
New Initiatives

1. Require that tourism liquor licenses be seasonal unless it can be demonstrated that the year-round population of the community meets the population to license ratio established in Title 4.
2. Buy back licenses, as they go on the market, in communities where the number of licenses exceeds the number allowable based on population.
3. Increase state tax on alcohol sales.

Result #1: HEALTH

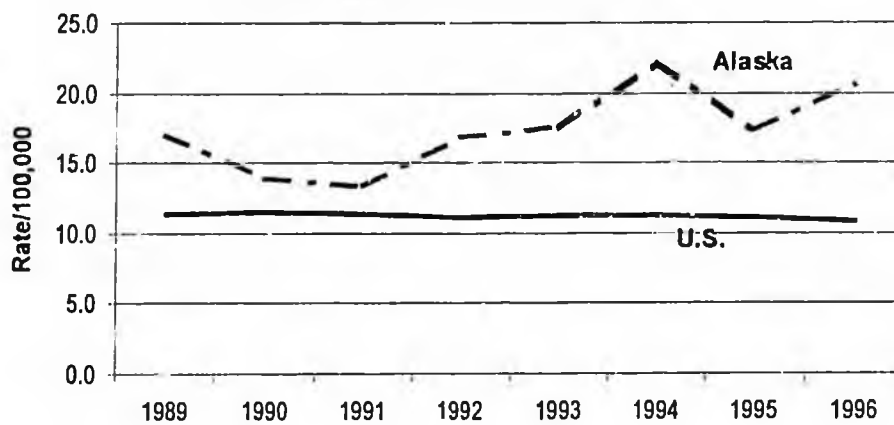
Indicator Baselines:

Age Adjusted Injury Deaths
U.S. and Alaska: 1989-1996



Injury Mortality Statistics, National Center for Injury Prevention and Control,
<http://www.cdc.gov/ncipc/osp/>

Age Adjusted Suicide Rates
U.S. and Alaska: 1989 - 1996



Suicide Deaths and Rates Per 100,000, National Center for Injury Prevention and Control,
<http://www.cdc.gov/ncipc/osp/>

The Story Behind the Baselines: Information on cause of death is collected and published annually by the Department of Health and Social Services Vital Statistics Section. Accidental deaths include motor vehicle accidents and all other accidents.

In Alaska, accidents are the leading cause of death for all age groups from one year up to 45 years. Children (between one and 14 years old) most often die due to motor vehicle accidents and drowning. The cause of death for adults is most frequently motor vehicle and air transport accidents. The Alaska age adjusted rate of death due to injury is consistently higher than the U. S. rate.

Accident survivors sometimes have life-long disabilities for which they will require support and services. In 1997, there were 621 traumatic brain injuries (TBI) in Alaska. TBI is often associated with long-term physical, emotional and financial costs.

Suicide was the fifth leading cause of death in Alaska in 1995. Suicide is the second leading cause of death for teenagers between the ages of 15 and 19. Accidents and suicides combined account for 60% of the deaths in this age group. The teen suicide rate is highest among young Alaska Native men. In 1995, the suicide rate dropped to 19.5 deaths per 100,000 population, down from 26.0 per 100,000 in 1994. This is the lowest age-adjusted suicide rate for Alaska since the beginning of the 1990s.

Information on cause of death for all Trust beneficiaries is not yet available.

Current Efforts to Turn the Curve: Some of the programs that are working to improve the safety of children are peer counselors and student assistance programs, community suicide prevention programs, mental health and substance abuse programs, and child protective services. Public health programs promoting, infant car seats, personal floatation devices, bicycle and motorcycle helmets, and other sports and outdoor safety gear, help reduce the number of children and adults who are injured or die in accidents. In communities, local Public Health Nurses, Community Health Aides and Public Safety Officers play an important role in community education and in responding to accidents, injuries or reports of harm.

Recommended Strategies:

Expansion of Current Efforts

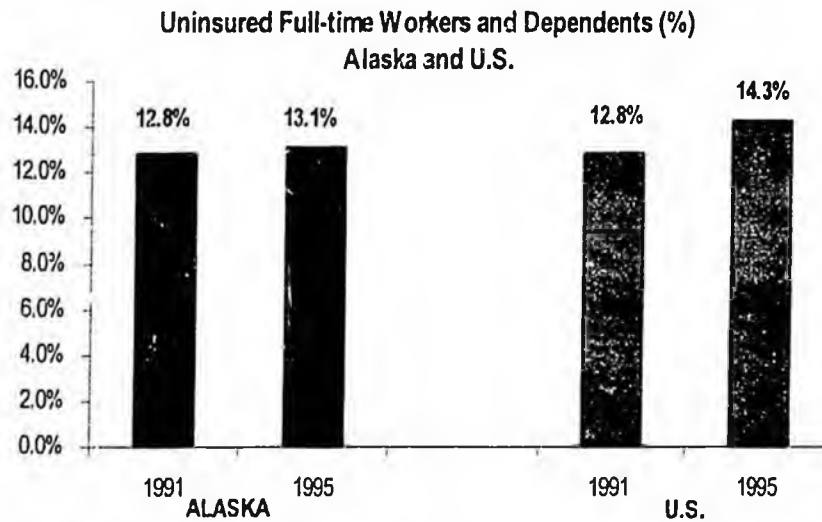
1. Expand public education programs on the importance of bike helmets, personal floatation devices, seat belts, etc.
2. Provide training to public safety officers on identifying people at-risk of attempting or committing suicide.
3. Expand peer helper programs in middle and high schools.
4. Increase the number of in-school clinics in high schools.

New Initiatives

1. Develop in-state traumatic brain injury programs to provide early and appropriate rehabilitation for adults and children.
2. Explore the feasibility of developing a Medicaid Waiver for people with traumatic brain injuries and chronic mental illness (TBI/CM I Waiver)

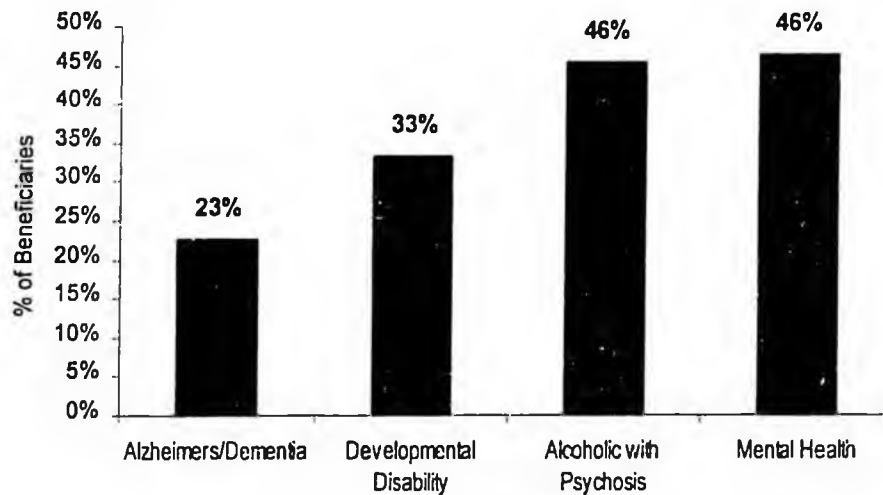
Result #1: HEALTH

Indicator Baselines:



Reforming the Health Care System: State Profiles 1997, Public Policy Institute, AARP, Washington, DC, 1997.

**1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Mental Health Trust Beneficiaries)
Postponed or Gone Without Medical Care**



The Story Behind the Baselines: Access to health care in Alaska is a complicated issue. In 1992, the Health Resources and Access Task Force reported to the Alaska Legislature that there were 90,000 uninsured Alaskans and that many of those with insurance had inadequate coverage. In 1995, 13.1% of Alaskan workers and their dependents did not have health insurance. Even with health insurance or Medicaid, access to health can be limited by other factors. Physicians often limit the number of Medicaid or Medicare patients they treat because the reimbursement for services does not meet the usual fee charged for the health care. Access is also sometimes limited by geographic factors. People living in remote areas of the state often have to fly to an urban area to get medical or dental care. Private insurers do not cover or adequately cover behavioral health and substance abuse services.

Medicaid is an important health care payment source for many Mental Health Trust beneficiaries. Even with medical coverage, beneficiaries often can not find physicians willing to treat them. While Medicaid pays for the full range of medical services, it only pays for acute dental service for adults.

Information on access to health care for Trust beneficiaries is not yet available. However, the Beneficiary Survey asked beneficiaries if they had postponed or gone without medical care in the previous 12 months. Mental health (46%) and alcoholics with psychosis (46%) beneficiaries were the most likely to have postponed or gone without care. Survey respondents with Alzheimer's or related dementia (23%) were the least likely to postpone medical services, probably because most of these beneficiaries are over 65 and eligible for Medicare.

Current Efforts to Turn the Curve: Medicaid income eligibility for children was recently expanded in Alaska through Denali KidCare. Other efforts that provide access to health care for beneficiaries are pro bono dental programs (Anchorage and Fairbanks), and sliding fee medical services through Section 330 Community Health Centers (Fairbanks and Anchorage). In 1999, a bill was introduced in the Legislature to provide for parity between physical and mental health coverage.

"Before, the argument was, if you got to see the doctor for free, everyone was going to see the doctor every other day. But now the argument is the opposite. A lot of people who need to see the doctor run out of money so they don't see the doctor when they need to, because they don't have any money to pay."

Consumer
1998 Beneficiary Survey

"We have no decent dental care. You can go get a tooth pulled if you are in pain. But to maintain, you can't get a teeth cleaning, you can't get caps."

Consumer
1998 Beneficiary Survey

"My health insurance pays for about 10% of my medical bills, and then they wonder why mental health people are not getting their medical care. They wonder why we don't get better. I never did have Medicaid."

Consumer
1998 Beneficiary Survey

Recommended Strategies:

Expansion of Current Efforts

1. Include screening for mental health disorders in EPSDT screenings.
2. Expand Medicaid coverage of dental services for adults to include preventive care.

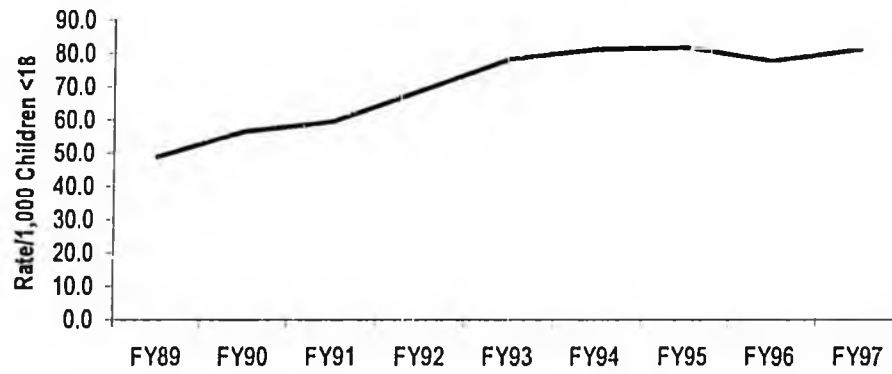
New Initiatives

1. Monitor the expansion of Medicaid income eligibility for children's health services.
2. Develop affordable health plans for young adults who may not be in school or working.
3. Implement the recommendations of the Parity Task Force.

Result #2: SAFETY

Indicator Baselines:

Child Protection Services: Rate of Reports of Abuse and Neglect (Alaska)



Alaska Department of Health and Social Services, Division of Family and Youth Services,
Juneau, AK

The Story Behind the Baselines: The Division of Family and Youth Services collects information on reports of harm to children. Reports of harm doubled between FY89 and FY97, increasing from 7,876 to 15,547. In 1997, there were 8,990 reports of neglected children, 4,123 reports of physical harm, 2,094 reports of sexual abuse and 340 'other' reports (abandonment and mental injury). A child may be the subject of more than one report of harm. Reports of neglect are continuing to increase while physical and sexual abuse reports began to level off in FY95. Abuse and neglect are major risk factors for emotional disorders, substance abuse, suicide and involvement with the correctional system. Many children who experience abuse and neglect repeat the pattern as adults by abusing and neglecting their own children. A recent study by the University of Alaska Justice Center (1998) shows that 82% of Alaska's long-term prisoner population reported that they experienced some form of sexual or physical abuse prior to their thirteenth birthday. Two-thirds (66%) reported being neglected as children. Another 1998 Department of Corrections study of the needs of female offenders found that 84% of women inmates experienced physical, sexual or emotional abuse at sometime in their lives. Information on reports of harm for Trust beneficiaries is not yet available.

Current Efforts to Turn the Curve: The Healthy Families Program, supported parenting programs for people with developmental disabilities, and other early intervention programs are aimed at intervening with families at risk of child abuse and neglect. Other programs that can impact abuse and neglect of children are domestic violence programs, emergency medical services, Public Health Nurses, Community Health Aides and Public Safety Officers, and homemaker and chore services.

Recommended Strategies:

Expansion of Current Efforts

1. Increase the availability of in-home early intervention programs for at-risk families.
2. Increase the availability of parent training and support services.
3. Increase the availability of emergency respite care for children and adults.
4. Increase the availability of before and after school programs for children.

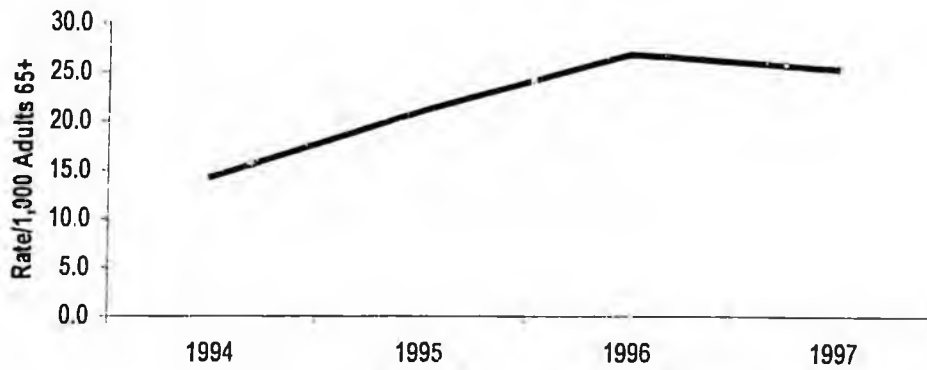
"We need counseling services for the whole family, because anger comes into this a lot, because your whole life is gone, and now you're this other person. But counseling, because it's not only affecting you but it affects your kids, your significant other or husband, or your grandparents, or your aunts."

Consumer
1998 Beneficiary Survey

Result #2: SAFETY

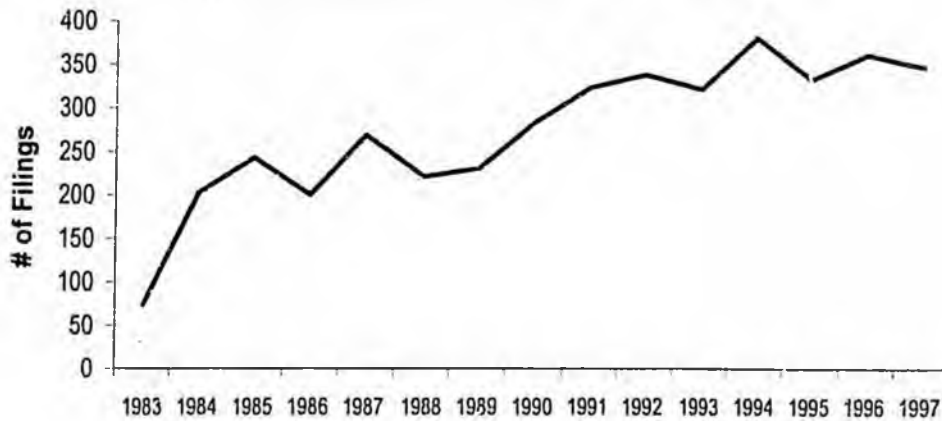
Indicator Baselines:

Adult Protective Services: Rate of Reports of Abuse and Neglect (Alaska)



Alaska Department of Administration, Division of Senior Services, Anchorage, AK

**Superior Court: Probate Case Filings
Guardianship Petitions: 1983 - 1997**



The Alaska Guardianship System, The McDowell Group, September 1998.

The Story Behind the Baselines: The Division of Senior Services in the Department of Administration receives and tracks reports of harm to seniors and other dependent adults, including adult Alaska Mental Health Trust beneficiaries. The rate of reports increased from 14.3 reports for every 1,000 Alaskans 65 and older in 1994 to 25.3/1,000 in 1997. The increase can be attributed, to some extent, to the reorganization of Adult Protection Services in the Division of Senior Services in July 1994. The Division developed a public information campaign about elder abuse and was able to focus greater staff resources at responding to and following up on reports.

"Legal Services and Disability Center is good, but there's not enough money to have them help us for all of the problems. There either needs to be more money for those agencies or ways that private attorneys would benefit, because they can only do so much pro bono."

Consumer
1998 Beneficiary Survey

Information on reports of harm for Trust beneficiaries is not yet available.

In a 1998 study of the relationship between guardianship and safety by the McDowell Group, it is estimated that 95% of adults who have guardians are beneficiaries of the Mental Health Trust. The Alaska guardianship system serves an estimated 2,700 protected persons. Approximately 2,000 of these individuals have private guardians, usually family members. The study estimates that the major reasons for guardianship care for adults are:

"I don't want to be by myself, but I want to take care of my own money."

Consumer
1998 Beneficiary Survey

Alzheimer's' and related dementia	40 - 50%
Mental illness	25 - 35%
Developmental disabilities	20 - 25%
Chronic substance abuse with psychosis	5 - 15%
Other	5 - 10%

"I was so involved and so worn out by the time I went to get help that I think that I wasn't thinking things through very well. But it seemed like I would hear about one thing and would go to that agency and somehow they never made it clear what groups did what things."

Consumer
1998 Beneficiary Survey

Current Efforts to Turn the Curve: Programs that can impact abuse and neglect of seniors are domestic violence programs, emergency medical services, Public Health Nurses, Community Health Aides and Public Safety Officers, homemaker and chore services, care coordination, substance abuse services, and outreach services to seniors with mental illness.

Recommended Strategies:

Expansion of Current Efforts

1. Increasing respite care for caretakers of vulnerable adults.
2. Improve the quality of personal care and home health services through direct care provider training.

3. Provide family support and counseling services to families supporting vulnerable adults.)
4. Increase the number of public guardians.

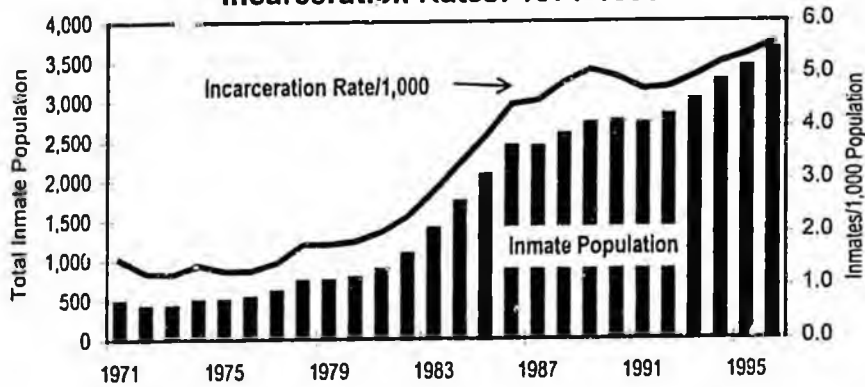
New Initiatives

1. Increase Personal Care Attendant (PCA) and assisted living rates, including augmented rates for people with mental illness or substance abuse problems.
2. Provide treatment opportunities for those who abuse and neglect dependent adults.)

Result #2: SAFETY

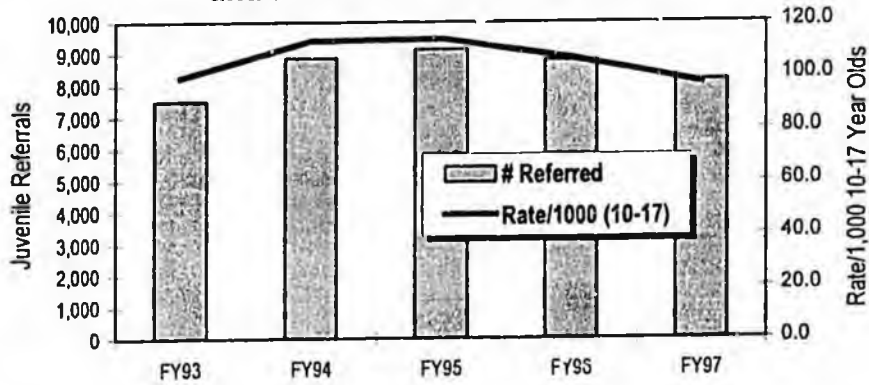
Indicator Baselines:

Alaska Adult Inmate Population and Incarceration Rates: 1971-1996



Average Annual Populations and Incarceration Rates (1971-1996), Alaska Department of Corrections, Anchorage, AK

Alaska Youth Corrections Referrals and Referral Rates: FY93 - FY97



Referral Summary (FY93 - FY97), Alaska Department of Health and Social Service, Division of Family and Youth Services

The Story Behind the Baselines: Alaska has one of the highest incarceration rates in the nation. In 1971, 1.5 of every 1,000 Alaskans was in prison. By 1996, the rate had more than tripled to 5.5 per 1,000. Between 1971 and 1996, the total incarcerated population increased from 482 to 3,648, or by 657%. Over this same period, the state population increased by only 104%. Some of the factors affecting the increase in the incarceration rate are:

- rise in the violent crime rate
- increases in police forces
- 1980 revision of the Criminal Code, including establishment of presumptive sentencing
- 1982 and 1983 Criminal Code revisions expanding presumptive sentencing
- mandatory minimum sentences for DWI offenders
- rise in serious juvenile crime and the 1994 juvenile waiver law requiring juveniles convicted of certain felonies be automatically waived to the adult system
- lack of emergency psychiatric services in the community to deal with violent mentally ill clients
- lack of transitional/supported housing in the community for displaced or discharged de-institutionalized mentally ill patients
- reduction in support services for ex-offenders

Alcohol abuse has a significant impact on incarceration rates in Alaska and nationally. The National Center for Addiction and Substance Abuse reported that 80% of the men and women behind bars in the nation's prisons are seriously involved in alcohol and drugs. In Alaska, the Criminal Justice Work Group reported in 1994 that alcohol is the primary or contributing factor in 80% to 95% of all criminal offenses committed.

In March through July 1997, the Division of Alcohol and Drug Abuse conducted interviews and collected urine samples from inmates at the Fairbanks, Bethel, Cook Inlet Pre-Trail Facility (CIPT), and 6th Avenue correctional facilities. The prisoners participating in the study were volunteers and had been arrested within 48 hours of their interview. The study found that 48% were abusing or dependent on alcohol, 18.5 on cocaine and 13.1% on marijuana.

In FY97, there were 8,163 juveniles (or 96.9 referrals per 1,000 youth aged 10 to 17) referred to the youth corrections program in the Alaska Department of Health and Social Services. A 1996 survey at the McLaughlin Youth Center in Anchorage indicated that 65% of residents had a DSMIII/IV diagnosis and 9% had severe emotional disorders. The New York Times recently reported that nationally up to 20% of incarcerated juveniles are seriously emotionally disturbed and that,

"A few times my symptoms have been really bad, and I've called for help and the Juneau Police Department showed up at my door to take me in, and that's not what I needed. I just needed the support and help though. I didn't need the police there."

Consumer
1998 Beneficiary Survey

often, going to jail is the only way for many to get treatment.

Current Efforts to Turn the Curve: Some of the programs that are working to reduce adult and youth incarceration and recidivism are alternative sentencing and specialized probation officers, Community Residential Centers and electronic monitoring. Programs developed for Trust beneficiaries in the correctional system include treatment programs for prisoners with mental illness or alcoholism, diversion and the Institutional Discharge Program. Programs and activities aimed at preventing incarceration are Youth Court, Smart Start, alcohol and substance abuse treatment programs, community mental health programs, and child abuse and neglect programs.

Recommended Strategies:

Expansion of Current Efforts

1. Increase the availability of discharge programs, including transition planning, designed to support the transition of beneficiaries from the correctional system to the community.
2. Stricter interpretation and sanctions (including youth oriented alcohol treatment services) for young people charged with minor consuming.
3. School-based alcohol and drug support for adolescents.

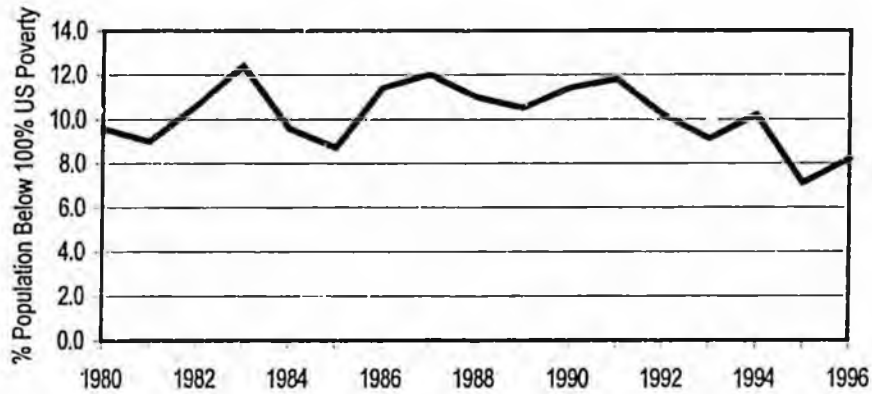
New Initiatives

1. Increase the number of communities with Youth Courts and other diversion programs (including Mental Health and Drug Courts) for youth.
2. Provide misdemeanor diversion programs.
3. Pilot a community based, single point of entry for behavioral health emergencies as an alternative to placement in the correctional system.
4. Provide support services and housing to youth transitioning from the juvenile correctional system.
5. Allow youth treatment programs flexibility in extending services past the youth's 18th birthday.
6. Provide early intervention services to high-risk youth, e.g. siblings of youth already in jail.

Result #3: ECONOMIC SECURITY

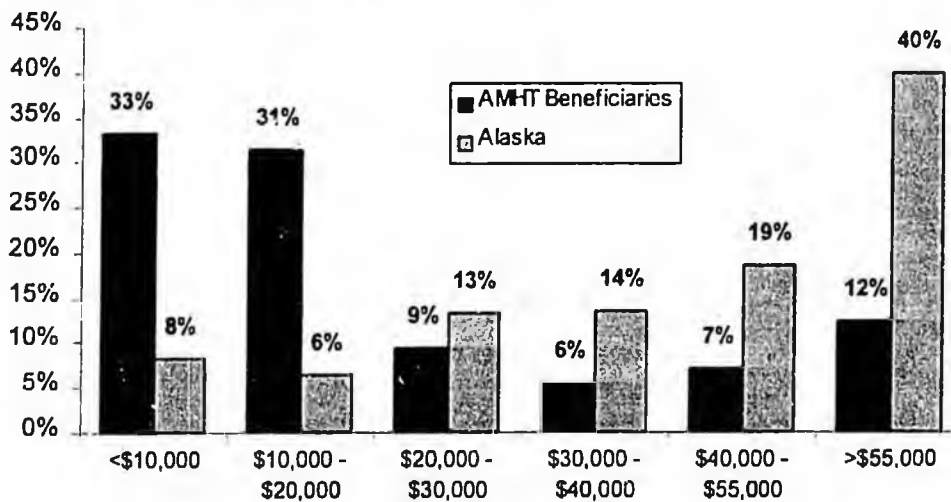
Indicator Baselines:

Poverty in Alaska: 1980 - 1996



Government Information Sharing Project, Oregon State University, <http://govinfo.kerr.orst.edu/>

1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Mental Health Trust Beneficiaries)
Beneficiary and General Population Income: 1998



The Story Behind the Baselines: Income and poverty levels are measured every ten years as part of the federal census and updated annually by the US Census Bureau. The current method of determining the official poverty rate is based solely on income and family size. Families with incomes low enough to qualify for cash benefits also qualify for other programs that reduce their need for cash. Such families can receive subsidized housing at reduced rents, free medical care through Medicare and Medicaid, food assistance with Food Stamps, and childcare. As part of the planning process for the 2000 census, the US Census Bureau is considering including income and non-cash benefits in the determination of poverty.

According to the US Census Bureau, the Alaska poverty rate is equal to 125% of the U. S. poverty rate. The only source of Alaska poverty rate data is a special report prepared for the Division of Public Health by the Census Bureau from the 1990 Census, which included analysis of poverty by census area/borough, age group and ethnicity. Over the past 16 years, the percentage of Alaskans below 100% US poverty has varied from year to year, but averaged approximately 10% of the population. In 1990, nearly 30% of Alaska Natives were living at or below the poverty level. At the same time, nearly 1 in 5 children under 5 years old was living under the Alaska poverty level.

The US Census Bureau reported that in 1994-95, people with disabilities were at greater risk of having a low income than other Americans. They found that for people between the ages of 22 and 64, 13.3% of those who had no disability were classified as low income, compared to 19.3% of those with non-severe disabilities and 42.2% of those with severe disabilities. Consumer fraud of seniors is a national trend that is negatively impacting the limited incomes of people over 65.

The Beneficiary Survey, conducted by the Alaska Mental Health Trust Authority in 1998, asked beneficiaries for information about their household income. Survey participants reported incomes that contrast drastically with the household income for the general population. Nearly two-thirds (64%) of the beneficiaries participating in the survey reported household incomes of less than \$20,000 while only 15% of Alaskan Households fell in this income group. Conversely, 59% of all Alaskan households reported incomes of more than \$40,000, while only 19% of beneficiaries reported similar household incomes. Alaska Psychiatric Institute reported that 90% of adults admitted had income below \$20,000 while 80% of adults receiving services from community mental health centers reported incomes below \$40,000.

"On the housing programs and the Dividends, our rents should not go up. They're charging us one-third of our income, and if we have a child in the house, then they count it as income and raise the rent."

Beneficiary
1998 Beneficiary Survey

"They're doing a good job of keeping us at poverty level."

Beneficiary
1998 Beneficiary Survey

"We can't afford to go bowling, or to the movies, or out to dinner. We don't have the extra money to do any of these things."

Beneficiary
1998 Beneficiary Survey

Current Efforts to Turn the Curve: Some of the strategies that are proving effective at increasing the incomes of beneficiaries are employment training programs like those provided by the Division of Vocational Rehabilitation and the Private Industry Council.

Developmental disability and mental health employment support programs provide on-the-job employment readiness training and support for workers. On-going support after acquiring employment is a determining factor in job retention for many beneficiaries. Senior employment programs provide many seniors with jobs as senior volunteers and help train seniors to acquire unsubsidized employment.

Recommended Strategies:

Expansion of Current Efforts

1. Educate seniors about consumer fraud.
2. Increase respite or day care funding so that caregivers can continue working while caring for a beneficiary.

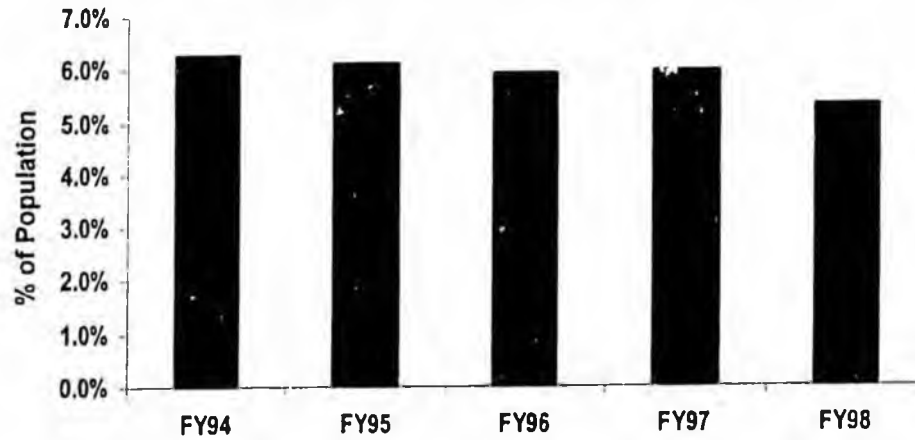
New Initiative

1. Establish a consumer credit union specifically for beneficiaries.

Result #3: ECONOMIC SECURITY

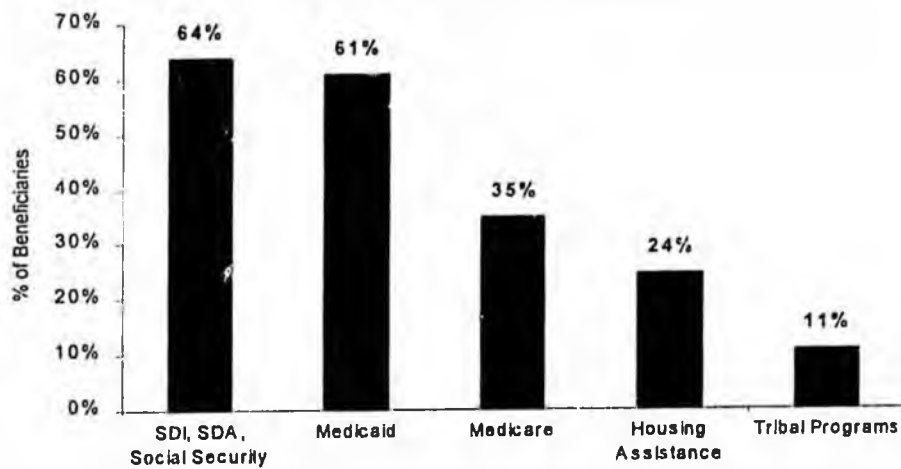
Indicator Baselines:

ATAP Recipients as a % of Alaska Population



Alaska Division of Public Assistance, Department of Health and Social Services, August 1998

1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Mental Health Trust Beneficiaries)
Reported Use of Financial Assistance Programs



The Story Behind the Baselines: The Alaska Temporary Assistance Program (ATAP) was signed into law in 1996. The goal of welfare reform is to: *move Alaskans from welfare to jobs so they can support their families, while maintaining a safety net for those truly in need.*

The first year of ATAP brought significant changes to the welfare caseload, including:

- The welfare caseload declined by 15%
- Welfare savings for FY98 were more than \$24 million
- The welfare caseload dropped to under 11,000 for the first time since 1992

The Division of Public Assistance estimates that 5% to 10% of those receiving ATAP are Alaska Mental Health Trust beneficiaries. One of the most significant changes brought about by welfare reform is the five-year lifetime limit of ATAP benefits. Most of the people who came off the welfare rolls during the first year were the most ready-to-work. There is currently no safety-net for recipients who complete five years of ATAP benefits and who are unable or unwilling to work. There are an unknown number of beneficiaries on ATAP for whom the goal of employment is unrealistic.

Other financial assistance programs provide support for Mental Health Trust beneficiaries. Many of the beneficiaries who participated in the Beneficiary Survey reported that they receive assistance through Social Security (64%) and Medicaid (61%), Medicare (35%), housing assistance (24%) and tribal assistance programs (11%). Eight thousand (8,000) adults with disabilities receive Adult Public Assistance, about 45% of whom have a psychiatric disability.

Current Efforts to Turn the Curve: Some of the strategies that are proving effective at increasing the number of people leaving public assistance are child care subsidies, job readiness programs, job training, and case management.

"I used to make more money in a day than I have in allowance for one week now, and I paid more taxes than I get in benefits today."

Beneficiary
1998 Beneficiary Survey

"I'm a single parent with two kids at home. And it's hard. One of my children has a disability, and it's hard to try to go out and work without the support I need for my kids, the childcare."

Beneficiary
1998 Beneficiary Survey

Recommended Strategies:

Expansion of Current Efforts

1. Case management to assist with access to public assistance and services.
2. Provide employer incentives for training and hiring hard to place ATAP and APA recipients.
3. Collect and analyze information collected about beneficiaries who use public assistance (disability, use of public assistance services, use over time)
4. Support legislation and funding for programs that provide beneficiaries with home and community based alternatives to institutional care.
5. Increase access to guardians, conservators, representative payees and provide assistance with paperwork.

New Initiative

6. Develop strategies to assure beneficiaries access to public assistance services even if they have received Alaska Temporary Assistance Programs (ATAP) services for five years. (*New policy initiative*)

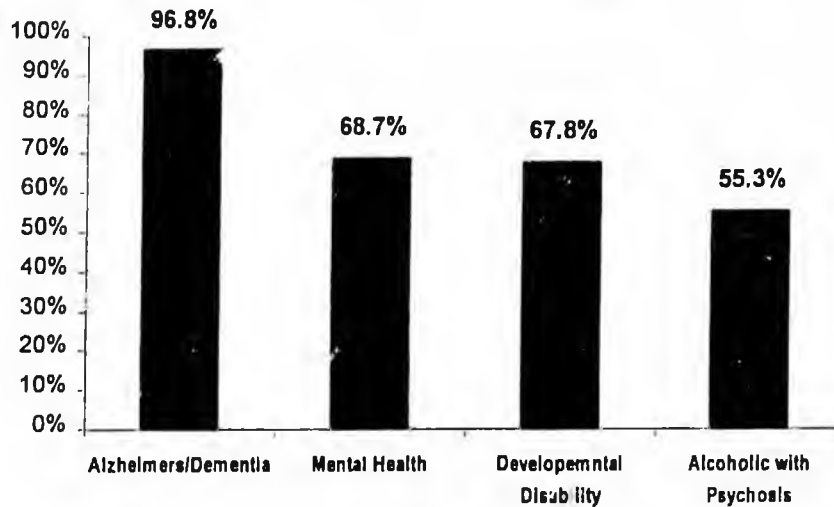
RESULT #4: PRODUCTIVELY ENGAGED, EMPLOYED, CONTRIBUTING

Indicator Baselines:



Government Information Sharing Project, Oregon State University, <http://govinfo.kerr.orst.edu/>

1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Merit Health Trust Beneficiaries)
Unemployment by Beneficiary Group



The Story Behind the Baselines: Data on employment, unemployment, hours and wages are collected and published monthly by the Alaska Department of Labor.

Unemployment in Alaska varies greatly with the season. In 1996, the statewide rate of unemployment ranged from 9.7% in January to 5.5% in August. Unemployed rates also vary according to region or community. Traditional methodologies for determining unemployment do not work well in Alaska's smaller, more remote villages, where few jobs are available. Many people in these communities rely on a traditional subsistence lifestyle. Hunting, fishing and gathering wild foods form the basis of a non-cash economy. Often, people living in these communities have given up on actively seeking employment and are not counted in local or state statistics. In many of these communities, it is estimated that more than 75% of the adults are not working at cash jobs.

National sources estimate that up to 65% of adults with a variety of disabilities are unemployed. The Mental Health Trust Beneficiary Survey found similar rates of unemployment in Alaska. Of those who took part in the telephone survey, 69% of those with mental illness and 68% of those with developmental disabilities reported that they were unemployed. Fifty-five percent (55%) of alcoholics with psychosis and 97% of those with Alzheimer's or other dementia, most of whom are 60 or older, said that they were not employed.

Even when Trust beneficiaries are employed, they are often in part-time, low paying jobs. Beneficiaries may remain in these jobs because, if they worked longer hours or made more money, they would lose their eligibility for Medicaid, which is often their only source of health insurance. Loss of medical benefits was the most commonly cited reason given for not seeking work by unemployed beneficiaries. The cost of some psychotropic drugs which make it possible for mentally ill people to work can cost \$900 per month. Other frequently cited reasons were discrimination, inability to find a job, and lack of training.

Current Efforts to Turn the Curve: Some of the strategies that are proving effective at increasing employment opportunities for beneficiaries are employment training programs like those provided by the Division of Vocational Rehabilitation and the Private Industry Council. Developmental disability and mental health employment support programs provide on-the-job employment readiness training and support for workers. The Governor's Council on Disabilities and Special Education recently received federal funding for a five-year employment initiative (Alaska Works). Senior employment programs provide many seniors with jobs as senior volunteers and helps train

"That's the only reason why I haven't gone out to look for work--to keep my medical coverage."

Consumer
1998 Beneficiary Survey

"I refuse to quit (job). My four hour day is all I get, and that is the most wonderful thing in my whole life, besides my children."

Consumer
1998 Beneficiary Survey

"Vocational Rehabilitation has helped me find a job."

Consumer
1998 Beneficiary Survey

seniors to acquire unsubsidized employment. During their 1998 session, the Alaska Legislature passed a bill that would allow people with disabilities to retain Medicaid coverage while working. Programs like elder care and respite make it possible for caregivers of people with Alzheimer's Disease to continue working.

"Job coaching takes people out and helps people get a job; they are helpful. They give you good information. They help you out."

Consumer
1998 Beneficiary Survey

Recommended Strategies:

Expansion of Current Efforts

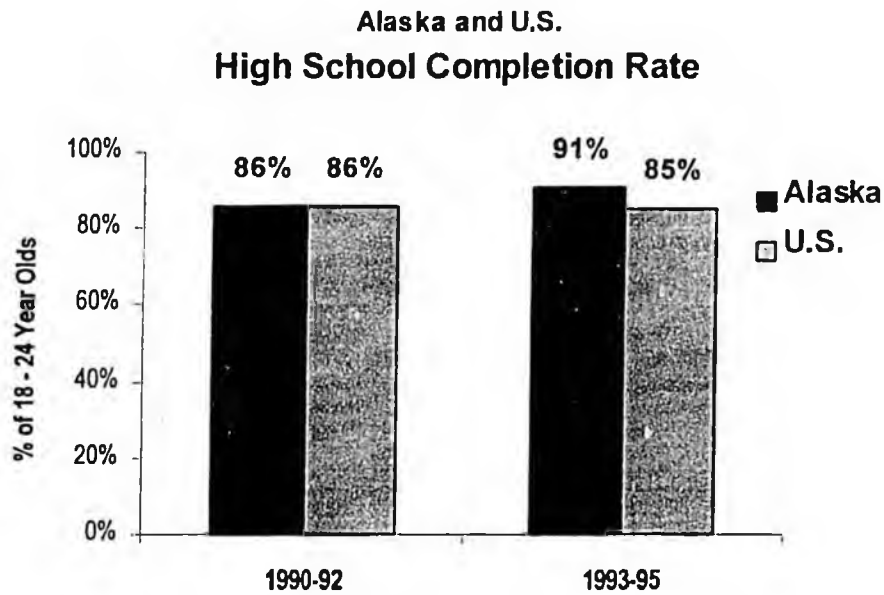
1. Increase Division of Vocational Rehabilitation transition services to beneficiaries 18 to 21 years old, including those in alternative schools.
2. Increase the number of school districts that support beneficiaries in inclusive settings.
3. Increase the number of beneficiaries, including those in the juvenile justice system, who complete school and pass high school qualifying exams or complete a GED.
4. Provide access to educational resources to juveniles in the adult correctional system.

New Initiatives

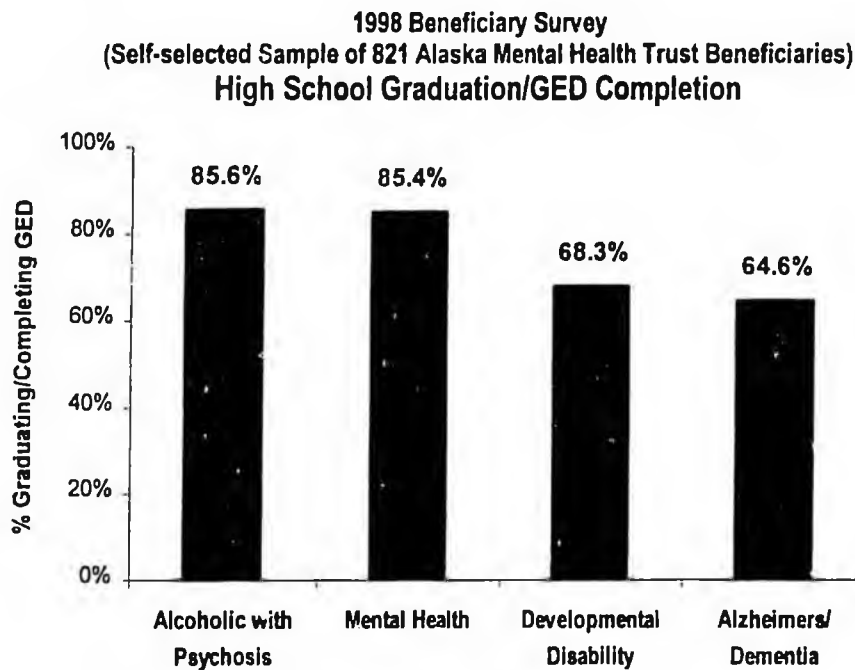
5. Provide cross-beneficiary job support services.
6. Create work opportunities for beneficiaries in the adult correctional system.
7. Monitor implementation of new employment initiatives, including Alaska Works and changes to Medicaid, to determine whether they provide expanded employment opportunities for beneficiaries.
8. Develop a strategic plan for the education of Trust beneficiaries.

Result #4: PRODUCTIVELY ENGAGED, EMPLOYED, CONTRIBUTING

Indicator Baseline:



Government Information Sharing Project, Oregon State University, <http://govinfo.kerr.orst.edu/>



The Story Behind the Baselines: Each October, the US Census Bureau conducts the Current Population Survey. Among the information collected is "high school completion rates for 18 through 24-year-olds not currently enrolled in high school". This information is collected for each state and is computed based on data spanning three years. In the years 1993-95, the Alaska high school completion rate was 90.5%, compared to a national rate of 85.5%.

The Mental Health Trust Beneficiary Survey found similar rates for high school graduation or GED completion for two beneficiary groups, alcoholics with psychosis (85.6%) and those with mental illness (85.4%). Approximately two-thirds (68.3%) of the survey participants with developmental disabilities had graduated from high school or completed a GED. Beneficiaries who have Alzheimer's or related dementia had the lowest high school completion rate (64.6%), which is probably a function of growing up at a time when many young people left high school to work or join the military.

The National Center for Education Statistics reported that in 1995, the percentage of young adults with disabilities (16 to 24 years) who dropout was 14.6%. The percentage of non-disabled young adults who dropped out was 11.8%. Students with mental illness are the most likely to dropout (56.1%), followed by those with mental retardation (31.1%), serious emotional disturbances (23.6%), and specific learning disabilities (15.8%). Learning disabilities were the most commonly reported disability in the study, affecting 2.2% of the population or one-third of the youths with disabilities in the age group.

"When I was going to high school, I had a teacher who said I wouldn't be able to graduate from high school. He said, "You'll never make it to college." I graduated from high school with honors, and I enrolled in college for an Associates degree. I have three more credits and I'll have an Associates degree."

Consumer
1998 Beneficiary Survey

"We need more adult basic centers in villages for school; for GED, ABE (Adult Basic Education). They quit the ABE program in my village."

Consumer
1998 Beneficiary Survey

Current Efforts to Turn the Curve: Some of the programs and initiatives proving to be effective at improving the educational outcomes for beneficiaries are education in regular classrooms, transition planning, mental health treatment services linked with special education programs, and support programs like peer counseling.

Recommended Strategies:

Expansion of Current Efforts

1. Increase the number of children in inclusive classrooms.
2. The Department of Health and Social Services and the Alaska Mental Health Trust Authority develop collaborative relationship with the Department of Education.

3. Increase the number of beneficiaries, including those in the juvenile justice system, who complete school and pass high school qualifying exams or complete a Graduate Equivalency Diploma (GED).
4. Increase access to educational resources for juveniles in the adult and juvenile correctional systems.

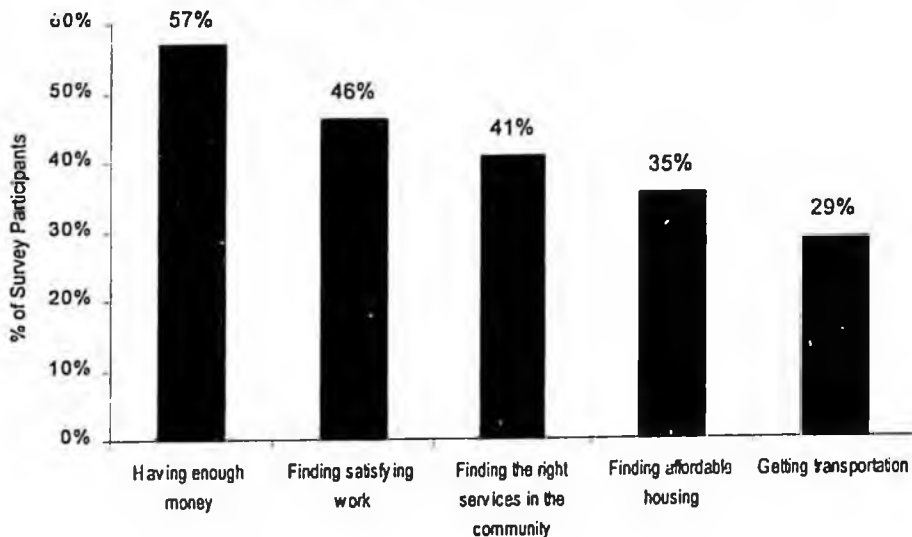
New Initiatives

1. Fund periodic audits of IEPs and make recommendations based on findings)
2. Develop an education strategic plan for beneficiaries.

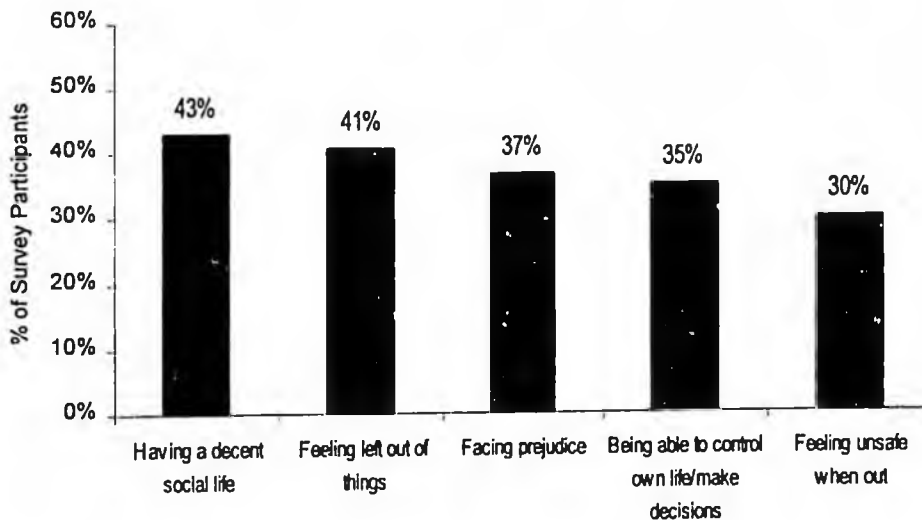
Result #5: LIVE WITH DIGNITY / VALUED MEMBERS OF SOCIETY

Indicator Baseline:

1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Mental Health Trust Beneficiaries)
Problems Encountered with Community Living



1998 Beneficiary Survey
(Self-selected Sample of 821 Alaska Mental Health Trust Beneficiaries)
Problems Encountered with Community Integration/Acceptance



The Story Behind the Baselines: Until recently, people with mental illness, developmental disabilities, chronic alcoholism and dementia were routinely removed from their homes and communities and placed in institutions. Until the late 1950s, hundreds of children and adults were sent to Morningside (Oregon) and other institutions thousand of miles from their homes and families. After statehood, beneficiaries received services in Alaska, but generally in centrally located institutions. As a result, people with disabilities were rare in communities and were often viewed with suspicion and mistrust. It is only in recent years, that local, community-based services have begun to spread across the state. Part of the mission of the Trust is to assist beneficiaries in becoming valued and contributing members of their communities.

Beneficiaries who participated in the Alaska Mental Health Trust Beneficiary Survey were questioned about problem areas they encountered in community living. Some of the problem areas noted were having enough money (57%), finding satisfying work (46%), finding the right services in the community (41%), finding affordable housing (35%), and getting transportation (29%).

Beneficiaries participating in the survey were also asked about some of the issues they faced in community integration and acceptance. The most common problems were having a decent social life (43%), feeling left out of things (41%), facing prejudice (37%), being able to control their own lives and making decisions (35%), and feeling unsafe when out (30%).

There is currently no comparable general population data.

Current Efforts to Turn the Curve: Some of the programs that have proven to be effective at providing beneficiaries with community living and home ownership support are HUD Section 8 and Supported Housing Programs, HUD 811 and 202 programs, the developmental disabilities and mental health housing grants, transitional housing and domiciliary care, supported living, and in-home support programs. In addition, there are general relief and housing assistance programs for elders. Advocacy groups, such as NAMI Alaska, the Alzheimer's Association, and the Key Coalition play important roles in educating the public, changing attitudes, and advocating for community options for people with disabilities.

"Everyone should be guaranteed a place to live. Nobody should be homeless."
Consumer
1998 Beneficiary Survey

"I like having a roof over my head and money coming in. And I'm at a level that I'm feeling O.K. and can get back out in the community."
Consumer
1998 Beneficiary Survey

"I don't have things to do. I'm not a street roamer, I do not drink, and I am very isolated. I need friends."
Consumer
1998 Beneficiary Survey

"I like volunteering."
Consumer
1998 Beneficiary Survey

"I like to go drumming. One of my plans is working at a music store and being a drum teacher and beginning a band. And I'm really good. I was in the newspaper for Artist of the Week."
Consumer
1998 Beneficiary Survey

"Anything is possible. I went skydiving a year and a half ago."
Consumer
1998 Beneficiary Survey

"Maybe I'd think about getting married and finding a girlfriend someday."
Consumer
1998 Beneficiary Survey

Recommended Strategies:

Expansion of Current Efforts

1. Ensure compliance with standards of care for facilities providing home and community based services for beneficiaries.
2. Provide training opportunities for community emergency services personnel (police, EMTs, hospital staff) on dealing with beneficiaries in crisis situations.
3. Support efforts to integrate beneficiaries into their communities.
4. Promote the participation of beneficiaries on policy-making boards and commissions.

New Initiatives

1. Re-capture the savings from the longevity bonus and reinvest it in senior services as a means of supporting seniors in their own homes and communities.
2. Explore a "universal" Medicaid waiver for home and community based care that is based on functional assessment rather than a specific disability.
3. Provide Alzheimer's and related dementia diagnostic and consultation services.

"I'd like to be able to get out more. Our transportation system only takes us to doctor's appointments but not anywhere else."

Consumer
1998 Beneficiary Survey

"Having knowledgeable family members makes a difference in how easily services are accessed or situations are handled."

Caregiver
1998 Beneficiary Survey

"We had a program with after hours that we could go to anytime--do crafts, and I liked that program. Everybody liked it. Then they cut that program. It's confusing."

Consumer
1998 Beneficiary Survey

"When you open up the newspaper, our Anchorage paper, there is, maybe once a week, an article about Alzheimer's in there, even if it's just a short little note. It's educating the general public."

Caregiver
1998 Beneficiary Survey

Data Development Agenda

In Results Based Budgeting, results and indicators are used to establish baselines for the development of strategies and performance measures. Much of the information included in the Comprehensive Integrated Mental Health Plan (CMIHP) reflects the broader statewide population and are not specific to Mental Health Trust beneficiaries. Part of the CIMHP development process is identifying information gaps and moving forward with a data development agenda. The purpose of the data development agenda is to improve the quality and reliability of information on beneficiaries, thereby improving Department of Health and Social Services and AMHTA planning and budget development. The indicators below are currently not available. There are funding implications for most of the recommendations below. Each requires further analysis to determine the complexity, costs or potential legal barriers for each action or change.

Overarching Data Development Needs:

DATA	Why its important	Action or Change Required
1. Consistent definition of beneficiaries across information systems (i.e. ARORA, DDIANA, PROBER, Senior Services, ADA, DOC, DOE, DVR, etc.).	It is important to compare the number of beneficiaries served by different programs and across systems.	Policy Change Addition/Revision to Existing Systems
2. Unduplicated count of beneficiaries to establish Alaska specific prevalence rates.	Current estimates of the number of beneficiaries are based on national prevalence data that may or may not be applicable to Alaska.	Survey Research - New Primary Data Source
3. Consistent definition of descriptive data elements (income, ethnicity, educational attainment, living situation) across data systems.	Standardized method of describing beneficiaries.	Policy Change Addition/Revision to Existing Systems
4. New information systems funded by the Mental Health Trust Authority must include a determination of beneficiary status.	Standardized beneficiary count by program.	Policy Change
5. Regular survey of beneficiaries to determine income and living conditions.	It will be important to see how the status of beneficiaries changes over time.	Survey Research - New Primary Data Source
6. Identify DHSS and other department information systems that collect information on beneficiaries and include them as sources of data for the data warehouse.	May provide a more complete picture of how beneficiaries use state-funded services.	Policy Change Addition/Revision to Existing Systems

**Result #1: HEALTH
DATA**

	Why it's important	Action or Change Required
1. # and rate of suicide attempts.	Indicator of need for mental health and substance abuse services.	New Primary Data Source
2. % of low-birth weight babies with long-term disabilities.	Estimating future impact on service systems.	Survey Research - New Primary Data Source
3. Hospital discharge data by diagnosis as defined by ICD9 code.	Indicator of use of medical acute care facilities by beneficiaries.	Policy Change - Legislation Addition/Revision to Existing Systems
4. Hospital emergency room data by diagnosis as defined by ICD9 code.	Indicator of use of medical emergency care facilities by beneficiaries.	Policy Change - Legislation Addition/Revision to Existing Systems
5. % of beneficiaries who are uninsured (do not have a public or private third party payer).	Indicator of beneficiary access to health care.	Beneficiary Survey - New Primary Data Source
6. % of beneficiaries with health insurance that includes behavioral health coverage.	Indicator of beneficiary access to mental health and substance abuse treatment services.	Survey Research - New Primary Data Source
7. % of beneficiaries who are unable to access needed medical, dental, mental health, long-term care or substance abuse treatment services.	Indicator of beneficiary access to health care and mental health treatment services.	Survey Research - New Primary Data Source
8. % of physicians enrolled in and accepting Medicare/Medicaid reimbursement.	Indicator of beneficiary access to health care and mental health treatment services.	Survey Research - New Primary Data Source

Result #2: SAFETY

DATA	Why its important	Action or Change Required
1. Retrospective studies: % of adults in correctional system, on Adult Public Assistance or in substance abuse treatment who were contacted by DFYS as children.	Indicator of future impacts on service systems and the need for future services.	Survey Research - New Primary Data Source
2. # and percentages of beneficiaries in the correctional system.	Indicator of future impacts on correctional system and the need for future community services.	Addition/Revision to Existing System
3. Recidivism rate for beneficiaries involved in the correctional system.	Indicator of future impacts on service systems and the need for future services.	Addition/Revision to Existing System
4. # of beneficiaries with guardians, including reason for guardianship and type of guardian (guardians, conservators, representative payees).	Indicator of the level of support required by beneficiaries and provides a means of monitoring the guardianship services. Safety indicator.	New Information System
5. % of beneficiaries living in safe neighborhoods (based on neighborhood crime rates, existence of neighborhood watch programs, availability of alcohol through liquor licenses or local option, presence of law enforcement/VPSOs).	Quality of life indicator.	Survey Research - New Primary Data Source

Result #3: ECONOMIC SECURITY

DATA	Why its important	Action or Change Required
1. Income of beneficiaries.	Indicator of beneficiary quality of life - comparable to population.	Addition/Revision to Existing System Survey Research - New Primary Data Source
2. Standardize methodology for collecting income information across databases.	Indicator of beneficiary quality of life - comparable to population.	Policy Change Addition/Revision to Existing Systems
3. Rate of employment for caregivers: before and after they become caregivers.	Indicator of care giver well-being and the availability of home and community services for beneficiaries.	Survey Research - New Primary Data Source
4. Availability of affordable specialized, transitional and assisted living housing.	Indicator of access to services.	Survey Research - New Primary Data Source
5. % of beneficiaries who are homeless.	Safety and quality of life indicator.	Survey Research - New Primary Data Source

Result 4: PRODUCTIVELY ENGAGED, EMPLOYED, CONTRIBUTING

DATA	Why its important	Action or Change Required
1. # of beneficiaries on ATAP and % nearing 5 year limit.	Indicator of the # of beneficiaries who may need alternatives to ATAP at some point.	Addition/Revision to Existing Systems
2. Hours worked per week for beneficiaries.	Indicator of the economic status of beneficiaries as compared to population.	Addition/Revision to Existing Systems Survey Research - New Primary Data Source
3. Wages per hour for beneficiaries.	Indicator of the economic status of beneficiaries as compared to population.	Addition/Revision to Existing Systems Survey Research - New Primary Data Source
4. % of beneficiaries who receive a diploma or GED.	Indicator of the future economic status of beneficiaries.	Addition/Revision to Existing Systems
5. % of juvenile offenders who are beneficiaries and who receive a diploma/GED.	Indicator of the future economic status of beneficiaries and recidivism potential.	Addition/Revision to Existing Systems

Result 5: LIVING WITH DIGNITY / VALUED MEMBER OF SOCIETY

DATA	Why its important	Action or Change Required
1. Number of people living in nursing homes by age and diagnosis.	Indicator of the availability of community based alternatives to nursing home care.	Addition/Revision to Existing Systems
2. % of seniors (60+) living in nursing homes.	Indicator of the availability of community based alternatives to nursing home care.	Addition/Revision to Existing Systems
3. Number of complaints against nursing homes and assisted living homes.	Status of the service system and quality of care.	Addition/Revision to Existing Systems
4. Number (or %) of beneficiaries using public transportation and para-transit (municipal or service provider)	Indicator of access to the community.	Addition/Revision to Existing Systems Survey Research - New Primary Data Source
5. % of beneficiaries living in the community or home of their choice.	Indicator of choice and quality of life.	Survey Research
6. Community support or treatment service availability index	Method of comparing the availability of community capacity to provide home and community based services.	Analysis of Existing Service System

DEPARTMENT OF HEALTH & SOCIAL SERVICES

Highlights

Down

- Infant mortality: neonatal and post-neonatal
- Teen pregnancy rates
- Juvenile crime
- Welfare dependency for able-bodied people
- Per capita consumption of alcohol, almost a gallon per person in 20 years
- Number of people who live in institutions for the mentally retarded to zero
- Number of people being hospitalized for long periods for mental illness

Up or Even

- Immunization rates for 2-year-olds
- Number of children who have health insurance
- Health of babies being born (higher birth rate)
- Number of child abuse reports have leveled off

Challenges

- Rate of children dying in Alaska is still one of the highest in the nation: intentional injuries and accidents, drowning, fire, dog bites, firearms, child abuse
- Levels of physical activity
- Obesity
- Tobacco use

Department Mission

To promote and protect the health and well-being of Alaskans.

Key Performance Measures

Division of Juvenile Justice

Mission: To protect and restore communities and victims while holding juvenile offenders accountable for correcting their behavior.

Measure: Youth and Justice - The percentage of restitution paid will be at least 82% of the amount ordered. The number of community work service hours will be 92% of the amount ordered.

Current Status: _____ In FY 99, 86% of the amount of restitution ordered was collected from juvenile offenders and paid to victims. During the same period, 95% of the community work service hours ordered was completed.

Benchmark: _____ Baseline used is the 1st quarter for FY1999. Restitution paid 79% and community work service 83%.

Background and Strategies: _____ It is the belief of DJJ that an essential aspect of rehabilitation of juvenile offenders is being held accountable for their actions, and making amends to the victim.

Highlights

- Juvenile arrests down
- Relieving facility overcrowding
- Accreditation
- Youth Courts/Community Response

Division of Family & Youth Services

Mission: To protect children who are abused and neglected or at risk of abuse and neglect.

Measure: The percentage of child protective services legitimate reports of harm assigned for an investigation will increase to 90% for FY2001.

Current Status: _____ FY2000: From July 1 through October 31, 1999, the total number of legitimate reports of harm assigned for investigation was 90%.
Note: Due to the seasonality involved in Reports of Harm, data for a full fiscal year will be used for comparison purposes.

Benchmark: _____ In FY1997, 73.6% of legitimate reports of harm were assigned for investigation.

Background and Strategies: _____ Increased number of child protection workers to respond to more reports; better training and less turnover among these workers.

FY1997: 73.6% of legitimate reports of harm were assigned for investigation

FY1998: 77.3% of legitimate reports of harm were assigned for investigation

FY1999: 78.1% of legitimate reports of harm were assigned for investigation. Set targets for assigning reports.

Highlights

- More Response to Reports Of Harm (ROH)
 - ❖ Dual track

- Work Force Issues
 - ❖ Training
 - ❖ Safety still an issue
 - ❖ Turnover

- Children in Custody Longest are Moving into Permanent Homes
 - ❖ Adoption

- Foster Care Improvements
 - ❖ Foster-a-Future
 - ❖ Safety still an issue

- Residential Care Improvements
- Legal system for permanent placement is working
- Risk assessment tool

Division of Public Health

Mission: To preserve and promote the state's public health.

Measure: Child Health Improvements - Increase the number of 2-year-olds fully immunized to 90% by the year 2001.

Current Status: _____ The percentage of fully immunized 2-year-olds for calendar year 1998 was 81.3%. This is up from 69% in 1996 and 75% in 1997.

Benchmark: _____ The department has gone from 48th to 22nd in ranking for the nation from 1997 to 1999.

Background and Strategies: _____ In 1997, the Department launched a major initiative to increase the rate of fully immunized two-year-olds. In two years we have gone from 48th to 22nd in the ranking for the nation. This comprehensive public-private initiative to increase the awareness of the need for immunizations and ensure access for families to the needed immunizations will be extended through 2000, in order to obtain the highest level of immunizations possible by the end of the Year 2000, hopefully the 90% goal. After this date, immunization activities will remain a priority to ensure the rate does not fall as new children are born or move to the state.

Measure: Child Health Improvements - Reduce youth smoking and smokeless tobacco use rates by 10% by the end of FY2001.

Current Status: _____ Preliminary results from the Youth Risk Behavior Survey (YRBS) suggest that youth smoking has decreased, especially among younger youth.

Benchmark: _____ Percent of participants in the Youth Risk Behavior Survey sponsored by Centers for Disease Control and Prevention and co-administered by the State of Alaska and individual school districts.

Background and Strategies: _____ The YRBS is a random, anonymous school survey, sponsored by Centers for Disease Control and Prevention (CDC) and co-administered by the State of Alaska and individual school districts. In 1995, 36.5% of Alaskan high school students reported current cigarette use and 72.1% reported that they had ever smoked a cigarette. Middle school student cigarette use in 1995 was reported at 58.3% ever smoked and 24.8% current cigarette use. Preliminary results from the 1999 YRBS suggest that youth smoking has decreased, especially among younger youth. The differences do not reach statistical significance, and it will take several years of data collection to be sure that smoking is declining among youth.

Research indicates that a comprehensive approach is the most effective method of reducing youth tobacco use rates. Therefore Alaska's Tobacco Prevention and Control Program is targeting both adults and youth.

Highlights

- Child Death Investigations/Medical Examiner
- Denali KidCare
- Emergency Medical Services
- Breast and Cervical Cancer
- New Public Health Lab, Kenai Health Center
- Healthy Alaskans 2010



Alaska's Behavioral Risk Factor Surveillance System

Tony Knowles
Governor

State of Alaska
Department of Health and Social Services

Karen Perdue
Commissioner

1991-1996

Alaska's Progress Towards the Goals of Healthy People 2000

About half of all deaths occurring annually can be attributed to modifiable behavioral risk factors (McGinnis and Foege, 1993). These risk factors are associated with lifestyle and include such things as poor diet, physical inactivity, smoking, overweight, not using safety belts and not taking preventive health measures. Many diseases and premature deaths could be prevented through modified behavior and lifestyle.

In 1991, the publication *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* was produced. This document outlines a national strategy to reduce the risks associated with disease and premature death and improve the nation's health by the year 2000.

The Behavioral Risk Factor Surveillance System

The Alaska Department of Health and Social Services implemented the Behavioral Risk Factor Surveillance System (BRFSS) in 1990 in cooperation with the Federal Centers for Disease Control and Prevention. The system

gathers information about the health related lifestyle choices of Alaskan adults related to leading causes of death such as heart disease, cancer and injury. The program is part of an ongoing national data collection system. Results are analyzed each year to improve our understanding of Alaskan health habits and to measure progress toward national and state health objectives.

In Alaska, 128 health interviews are conducted each month utilizing a standardized BRFSS questionnaire. The interviews are conducted over the telephone using randomly selected telephone numbers. Respondents are randomly selected from the adult members of the household (18 years of age and older). A total of 1,536 interviews are completed annually. These data are analyzed by the Centers for Disease Control and Prevention and weighted to adjust the sample to represent the state population.

This report summarizes survey findings from 1991 to 1996 and compares the results to selected national health objectives presented in the *Healthy People 2000* publication.

Overweight

HEALTHY PEOPLE 2000 OBJECTIVE 1.2 – NOT MET

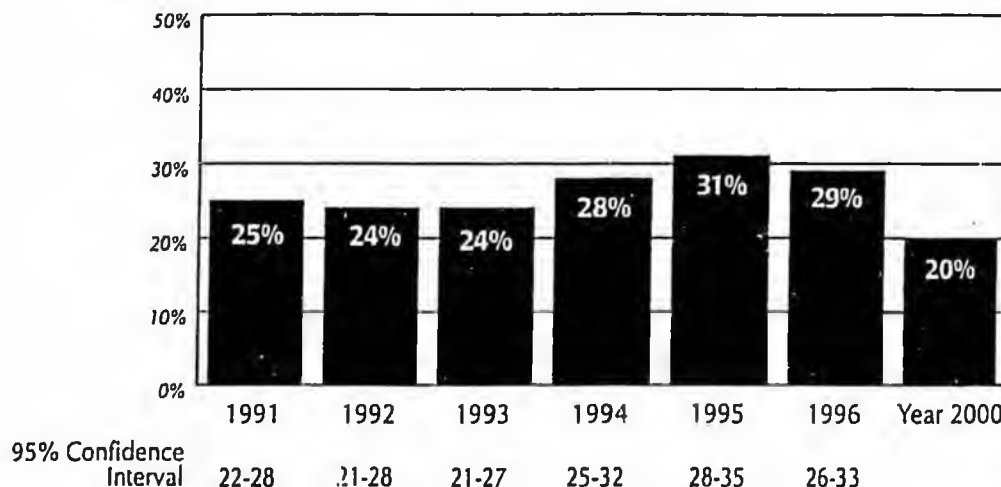
Reduce the prevalence of overweight to a prevalence of no more than 20 percent among people aged 20 and older.

Overweight people are at increased risk for heart disease, diabetes and for certain types of cancer.

Survey results indicate that Alaska has not met this goal and that typically more than 20% of Alaskan adults are overweight.

Definition used for this survey:
 Body Mass Index (BMI): Females with body mass index (weight in kilograms divided by height in meters squared (w/h **2)) >= 27.3 and males with body mass index >= 27.8.

Overweight



Physical Activity

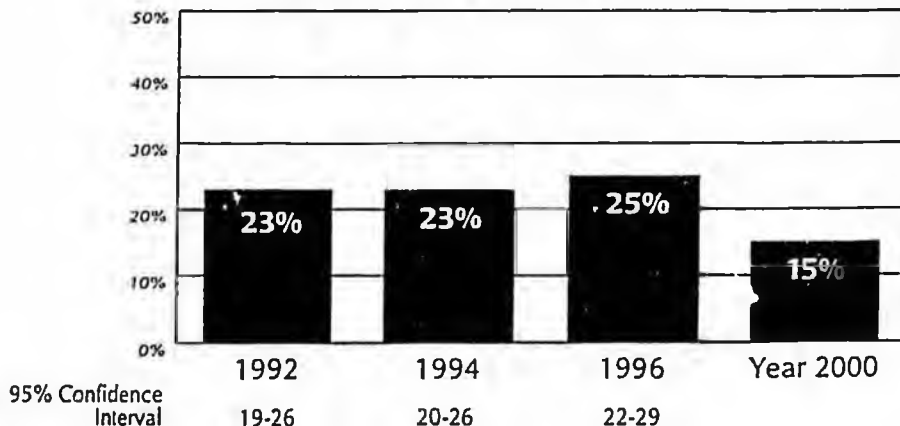
HEALTHY PEOPLE 2000 OBJECTIVE 1.5 – NOT MET

Reduce to no more than 15 percent the proportion of people aged 6 and older who engage in no leisure-time physical activity; reduce to no more than 22 percent the proportion of people aged 65 and older who engage in no leisure-time physical activity.

The Surgeon General recommends regular (preferably daily) physical activity for better health. Regular physical activity reduces the risk of premature death and enhances health.

The proportion of Alaskan adult respondents who report no leisure time activity has remained unfavorably above the Year 2000 goal of 15%.

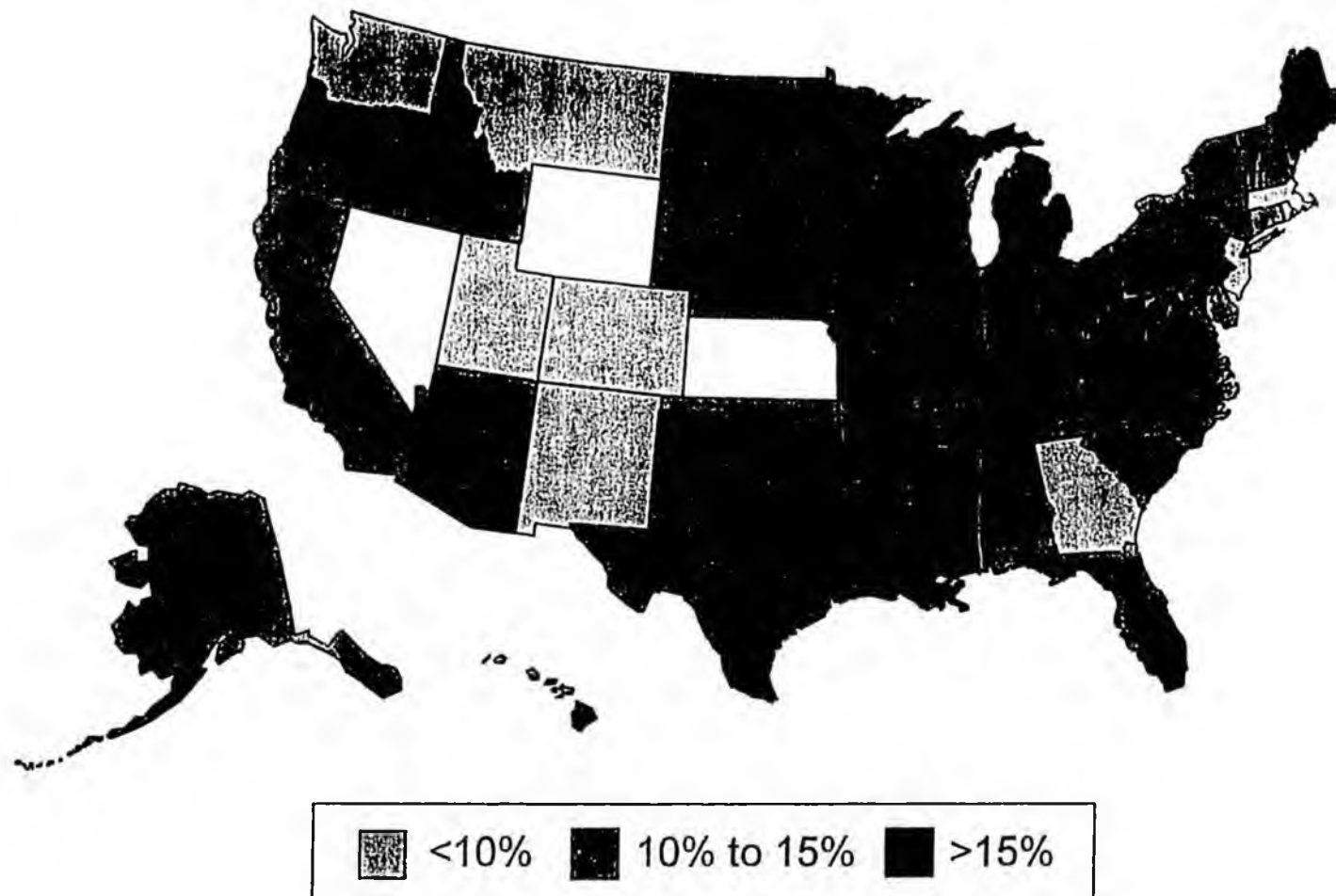
No Physical Activity



◆ data not collected during missing years

Prevalence of Obesity* among U.S. Adults BRFSS, 1991

(*Approximately 30 pounds overweight)



Source: Mokdad AH, et al. *J Am Med Assoc* 1999;282:16.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics Systems, 1999.



Leading Health Indicators

The Leading Health Indicators reflect the major public health concerns in the United States and were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues.

The Leading Health Indicators illuminate individual behaviors, physical and social environmental factors, and important health system issues that greatly affect the health of individuals and communities. Underlying each of these indicators is the significant influence of income and education (see Income and Education, page 12).

The process of selecting the Leading Health Indicators mirrored the collaborative and extensive efforts undertaken to develop Healthy People 2010. The process was led by an interagency work group within the U.S. Department of Health and Human Services. Individuals and organizations provided comments at national and regional meetings or via mail and the Internet. A report by the Institute of Medicine, National Academy of Sciences, provided several scientific models on which to support a set of indicators. Focus groups were used to ensure that the indicators are meaningful and motivating to the public.

Leading Health Indicators

- Physical activity
- Overweight and obesity
- Tobacco use
- Substance abuse
- Responsible sexual behavior
- Mental health
- Injury and violence
- Environmental quality
- Immunization
- Access to health care

For each of the Leading Health Indicators, specific objectives derived from Healthy People 2010 will be used to track progress. This small set of measures will provide a snapshot of the health of the Nation. Tracking and communicating progress on the Leading Health Indicators through national- and State-level report cards will spotlight achievements and challenges in the next decade. The Leading Health Indicators serve as a link to the 467 objectives in *Healthy People 2010: Objectives for Improving Health* and can become the basic building blocks for community health initiatives.

Division of Mental Health & Developmental Disabilities

Mission: To improve and enhance the quality of life for consumers impacted by mental disorders or developmental disabilities.

Measure: API 2000 Community Implementation Plan--Decrease the number of psychiatric hospital days used per person that are publicly funded.

Current Status: _____ As of first half of FY1999, 12 days expresses the average number of days per person that are publicly funded.

Benchmark: _____ The benchmark is 13 days based on the second half of FY1998.

Highlights

- API 2000/Community Psychiatric Services
- Developmental Disabilities waiting list
- Comprehensive Integrated Plan

Division of Alcoholism & Drug Abuse

Mission: To reduce alcoholism and substance abuse.

Measure: Reduce the annual per capita alcohol consumption by people aged 14 and over from 2.55 to 2.25 gallons by FY2001.

Current Status: _____ The numbers currently indicate that Alaska's consumption rate is declining. Since FY90 Alaska has experienced a steady decline with the most recent years rates of 2.64 and 2.51 gallons per capita for FY97 and FY98 respectively.

Benchmark: _____ Annual per capita alcohol consumption for ages 14 and over was 3.46 gallons in FY85.

Background and Strategies: _____ 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 but does not acknowledge the state's significant (and increasing) visitor population. 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. In relation to this strategy the department advocates for positive change through legal and regulatory initiatives. Other strategies include but are not limited to: encourage activities and initiatives that will change community standards and emphasize healthy lifestyles; encourage traditional and alternative social activities that are alcohol and drug free.

This age group was selected by the Division in order to have a valid comparison of the state's consumption levels with the national level.

Highlights

- Progress toward outcomes/audit issues
- Title 47

A Summary of Recent Findings Regarding Substance Abuse in Alaska

The Division of Alcoholism and Drug Abuse (ADA) is about to make public a report which summarizes six recently-completed research reports. These research findings, developed with the collaboration of the Division of Public Health's Section of Epidemiology, provide science based information related to the success of treatment and intervention as well as information about the prevalence of alcohol and drug abuse in Alaska.

Among the information learned from this research are:

- Of Alaskan outpatients surveyed, 56 percent abstained from alcohol for one year after treatment.
- Of Alaskans in residential programs surveyed, 42 percent abstained from alcohol for one year after treatment.
- 36 percent of Alaskan residential clients surveyed were hospitalized before treatment and 15 percent after treatment.
- 28 percent of Alaskan outpatient clients surveyed were hospitalized before treatment and 7 percent after treatment.
- 66 percent of the misdemeanor offenders referred to the ASAP did not re-offend during a subsequent 3 year period.
- A total of 13.85 percent of Alaskans are in need of treatment for alcohol and/or substance abuse. The studies show that 12.6 percent of Alaskan residents are in need of treatment for dependence upon or abuse of alcohol. An additional 1.2 percent of Alaskan residents need treatment for drug abuse or dependence and .05 percent of Alaskan adults are in need of treatment for drug abuse or dependence only.
- Survey respondents to Substance Abuse Need for Treatment Among Arrestees Survey showed that 37.3 percent of this population are in need of treatment. Of this total 32.9 percent are male and 50 percent are female.

If you are interested in complete copies or other information regarding these reports please contact ADA at 1-800-478-2072 or the Division of Public Health's Section of Epidemiology at (907)269-8000.

Division of Public Assistance

Mission: To provide basic living expenses and self-sufficiency services to Alaskans in need.

Measure: Move 50% of welfare recipients into work activities by the end of FY2001.

Current Status: _____ The percentage of all Temporary Assistance families participating in federally countable work activities was 45% in January 1999.

Benchmark: _____ Federal law requires that states meet work participation requirements:

- FFY1997 25% of all families
- FFY1998 30%
- FFY1999 35%
- FFY2000 40%
- FFY2001 45%
- FFY2002 50%

Background and Strategies: _____ The Temporary Assistance program is a work-focused program to help Alaskans plan for self-sufficiency and to make a successful transition from welfare-to-work. Federal welfare reform law requires the state to meet work participation requirements. Failure to meet federal participation rates results in fiscal penalties. In FY2001 federal law requires 45% of all families and 90% of all two parent families to participate in a defined "work activity".

Highlights

- Adult Public Assistance

Division of Medical Assistance

Mission: To maintain access to quality health care for all Alaskans and to provide health coverage for Alaskans in need.

Measure: Percentage of Alaskan providers participating in the Medical Assistance program, by type and region.

Current Status: _____	FY 1999 Summary Data	
	Enrolled	Participating
Physicians	84.9%	52.5%
Dentists	82.8%	59.0%
Pharmacies	75.8%	75.0%
Hospitals	100.0%	95.7%
Nursing Homes	100.0%	100.0%

Benchmark: _____ The Division has measured participation by physicians, pharmacies, dentists, inpatient hospitals, and nursing homes during FY1999. Participation rates compare licensed Alaskan providers with Medicaid enrolled and participating providers (i.e., those providers reimbursed for services).

Department Goals and Strategies for FY 2001

Help children stay healthy and safe.

- Improve the state's response to child abuse and neglect by responding to more reports of harm, ensuring that children in state care are placed in safe, quality homes, and moving children in foster care to permanent homes more quickly.
- Develop a system to improve surveillance, treatment and prevention of alcohol-related birth defects.
- Fully implement Denali KidCare - health care coverage for low-income children and pregnant women.
- Implement strategies to reach statewide immunization target: 90 percent of all 2-year-old children.
- Improve access to pediatric dental services.

Help Alaskans live healthier and have access to basic health care to reduce chronic and preventable disease.

- Improve access to health care for Alaskans in rural areas.
- Assist in the efficient development of telemedicine in Alaska.
- Efficiently manage the Medicaid program and gain the necessary federal and state resources to deliver a comprehensive program.

Assist Alaskans who experience developmental disabilities and/or mental illnesses to live independently and remain economically secure.

- Refine Comprehensive Integrated Mental Health Plan in conjunction with consumers, policy boards and the Alaska Mental Health Trust Authority.
- Promote self-sufficiency for adults with disabilities through work incentives.
- Replace aging Alaska Psychiatric Institute, improve treatment services at new API, and strengthen community services to prevent inappropriate hospitalization.
- Review status and operation of adult assisted living homes and the clients they serve. Assist in strengthening guardianship and adult protective services.
- Develop and implement a plan for improving services for special needs children.
- Continue mental health program improvements.
- Eliminate the waiting list for infants needing diagnosis and treatment of developmental disabilities or delays.

Increase incentives and opportunities for communities to collaborate with the department to improve results for children and families

- Implement tribal Temporary Assistance for Needy Families (TANF) partnerships.
- Promote self-sufficiency for families on public assistance.
- Continue collaboration with communities and private organizations on service integration projects.
- Improve regulatory framework and processes for awarding, monitoring and implementing departmental grants for services to assist Alaskans.

Establish an integrated statewide system for data collection, analysis and reporting that improves services to Alaskans

- Continue to link and integrate data from a variety of existing systems, including state and grantee client and management information systems.
- Develop and refine a system to evaluate welfare reform outcomes.

Promote efficient streamlined systems where employees value their work and meet customers needs

- Continue effort to integrate systematic performance measurement into the department's program planning, budgeting and ongoing operations.
- Improve process for internal and external communications.

Major Department Accomplishments for FY1999

- Launched Denali KidCare, expanding health care coverage to uninsured children and pregnant women. As of September, the program had reached its goal of enrolling nearly 12,000 children and was close to reaching its goal of signing up 800 pregnant women.
- Improved the response to reports of child abuse and neglect.
- Completed first full year of operation of Family Services Training Academy; all new workers trained before receiving caseloads; more than 260 social workers trained in first year.
- Increased training for child protection workers; reduced staff turnover; successfully filled approximately 22 vacant positions to provide increased protection.
- Launched statewide "Foster a Future" foster care recruitment campaign. Added more than 200 foster homes since FY 97.
- Provide services to additional 169 consumers who had been on the developmental disabilities waitlist for services, and provided developmental disability services to a total of 1,900 persons.
- Reduced overcrowding in juvenile detention and treatment facilities by opening a new 22-bed treatment unit addition to the existing Johnson Youth Facility in Juneau and adding 20 new detention beds at McLaughlin Youth Center in Anchorage.
- Implemented an aggressive immunization campaign at the state and local level, that simultaneously increased dramatically the number of two year olds who are adequately immunized, ensured that all Alaskan school age children are adequately immunized against measles to prevent another measles outbreak from occurring and significantly increased the immunization levels for young children against Hepatitis A and B.
- Reduced Temporary Assistance caseload to 8,721 families, the lowest point since 1991 when two-parent families were added to the old AFDC program, 34% below the historical peak in 1994.
- Reduced expenditures for Temporary Assistance payments from \$90.9 million in FY98 to \$74.3 million in FY99. This 18% saving contributes to a 35% saving over the past two years. These savings are from reduced payments due to earnings and from case closures.

- Initiated a successful program to assure that all "mission-critical" systems are Y2K compliant.
- Expanded state's response to fetal alcohol syndrome by conducting more than 200 medical chart reviews as part of FAS Surveillance Project and by establishing and training three FAS Multidisciplinary Community Teams - in Bethel, Dillingham and Copper Center.

**A Summary of Recent Findings
Regarding Substance Abuse in Alaska**

Prepared by the Division of Alcoholism and Drug Abuse
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December, 1999

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Overview

Since 1994 the State of Alaska, Division of Alcohol and Drug Abuse has been conducting and participating in a significant level of federal and state funded research, with resources provided by the Department of Health and Human Services, Center for Substance Abuse Treatment Agency as well as by the State.

The federally funded research efforts, or needs assessment, have been designed to determine the prevalence, severity and needs for treatment of Alaska's substance abuse problems. This research has been conducted by the Division of Alcoholism and Drug Abuse in close collaboration with the Division of Public Health, Section of Epidemiology. The needs assessment research has assessed the situation State-wide, as well as among demographic and geographic groupings within the State. We have also compared findings from this research with findings from similar research efforts conducted by or about other states. While our needs assessment efforts are still ongoing a key finding has been the limits imposed by many of our current data sources, and while the ongoing research includes efforts to address these data source constraints it is important to note that the findings mentioned herein are preliminary in nature. However, our efforts so far have produced results that either (a) appear to be confirmed from several sources or (b) raise questions that point toward further investigation.

Additionally, this report summarizes state funded research conducted by the University of Alaska Anchorage, Institute for Circumpolar Health Studies, on the Alcohol Safety Action Program, as well as a chemical dependency treatment outcome study conducted by New Standards, Inc. on over 1600 Alaskan residential and outpatient clients. The intent of the Alcohol Safety Action Program study was to measure the effectiveness of the program in reducing the number of re-offenses of alcohol related offenders. The outcome study provides information about the State's residential and outpatient clients from their admission to a treatment program to one year following admission.

While we summarize our research efforts of the last 5 years in this publication, researchers and others interested in complete copies of these reports should contact the Division of Alcoholism and Drug Abuse at 1(800)478-2072 or the Division of Public Health's Section of Epidemiology (907)269-8000.

Needs Assessment Data Sources and Research Methods:

Needs assessment information has been compiled from two broad categories of data: interstate data sources that are available regarding all or many states, and intrastate data sources that have been collected solely for Alaska's analytic and program planning purposes. Both categories relied upon data sources presumed to have high face validity. As we have proceeded through our analyses, we have discovered some limits to these assumptions that are inherent to the data; these limits will be noted.

Interstate data sources to date have included:

- (i) the National Drug and Alcohol Treatment Unit Survey (NDATUS) to determine persons in treatment;

- (ii) the National Institute of Alcoholism and Alcohol Abuse (NIAAA) County Alcohol Problem Indicators to determine mortality, using data with specific mentions of alcohol as a cause of death;
- (iii) the Center for Disease Control's Behavioral Risk Factor Survey (BRFSS) and
- (iv) the FBI's Uniform Crime Reporting (UCR) Arrest Statistics for all drug abuse violations and for arrests for driving under the influence of alcohol.

Intrastate substance abuse and dependence research to date has included

- (i) a statewide residential telephone survey of 8,167 households over an approximately four month span of time;
- (ii) a voluntary survey and urinalysis of 658 arrestees from four booking sites in Anchorage, Fairbanks and Bethel, and
- (iii) a review of existing state databases for treatment, mortality and arrest data from 1990-95 regarding alcohol and drug arrests, accident injury and mortality, and treatment.
- (iv) A small area (borough level) estimates of substance abuse prevalence and dependence based on synthetic estimates from the household telephone survey data.

This research summary includes an Interstate Substance Abuse Indicator Chartbook that compares Alaska Statewide data with that of other states, and executive summaries from the four intrastate studies described above.

Please note that due to limits in data availability from the several states the interstate data is several years older than, and different from, much of the intra-state data. It also should be mentioned that our recent in-State studies have used nationally accepted operational definitions for substance dependence or abuse used by other states in similar research efforts. In our interview studies for example, an individual is defined as having a lifetime diagnosis of substance dependence or abuse who has both used and had a symptom as defined by DSM-III-R within the last eighteen months. These particular study respondents have also been considered persons who may have needed treatment within the last year.

Independent reviews of the various studies have found their methods and conclusions sufficient to support the major findings presented in the attached executive summaries. Highlights from the reports can be briefly describes as follows:

I. Prevalence Findings:

A. Alcohol:

"Need for substance abuse treatment" is defined as being in a state of substance abuse or dependence, and requiring help to stop or reduce substance use, to prevent relapse, or to recover from the effects of abuse. The operational definition of treatment need is a diagnosis of a substance use disorder, either abuse or dependence. According to these definitions, the survey found 12.6 % of residents in need of treatment for dependence upon or abuse of alcohol, with an

additional 1.2% also in need for treatment for drug abuse or dependence. In comparison, the survey finds 0.5% of adults are estimated to be in need for treatment of drug dependence or abuse only.

Data from all other studies support the finding that alcohol is Alaska's problem substance of choice. Interstate comparative data is consistent with these findings. The attached interstate indicator analysis finds that Alaska is among the states with the nation's most severe rates of alcohol problems; with problems of alcohol abuse and dependence and need for treatment far exceeds the problems of dependence, abuse and need for treatment associated with all other drugs. According to this data Alaska experiences the fifth most severe rate of alcohol problems in the nation, based on death, arrest and treatment data. Alaska holds the dubious distinction of being ranked first in deaths with an explicit mention of alcohol, and thirteenth for deaths due to alcoholic cirrhosis. Alaska ranked tenth nationally in DUI arrests, and thirteenth in motor vehicle fatalities with blood alcohol levels greater than .10%. The 1993 BRFSS Alaska survey data used for national comparisons among states found Alaska to rank first nationally in mothers of newborns who admitted to having 3-4 drinks per week; fourth in "binge drinking" (5 or more drinks at least once in the past month); and second in "chronic" drinking (60 or more drinks per month).

While it is too early to determine if there is a trend it is encouraging that more recent BRFSS survey data includes: an estimate that over the 1993-95 time period Alaska adults estimated to be at risk for chronic drinking declined from 5.3% to 2.9% (national median = 2.77%); the percent of Alaska adult males who reported having 60 or more drinks in the month prior to the survey declined from 8.6% to 4.6% over the 1993-95 time period and among adult Alaska females the reported decline was from 1.6% to 1.1%; the per cent of Alaska adults who reported they had been drinking and driving in the month prior to the survey declined over the 1993-95 time period from 2.5% to 1.3%

Our recent telephone survey has produced an estimate of 9.7% of all Alaska adults as having a lifetime alcohol dependency, with another 4.1% identified as alcohol abusers. The need for treatment appears greatest among adults from 25 to 44 years of age. Alcohol and dependency problems appear to be most severe in the BRFSS regions identified as Southeast and Bush Alaska. Alcohol dependency and abuse rates are found to be twice as high among men as among women, and lifetime dependency is estimated as approximately 50% higher among Alaska Natives and Native Americans than among whites.

The substance abuse indicator analysis of five available States data indicators show that while the problems remain extremely severe, overall the alcohol and drug abuse problem in Alaska showed some significant improvement by the mid-1990s compared to the early 1990s. Overall treatment admissions increased, at the same time that mortality rates and injury rates from accidents declined. While difficulties with the data are noted within the full reports, as well as in the attached review of the reports, nonetheless this can be regarded as an indicator of progress in providing treatment identified in the reports as clearly needed.

B. Controlled Drugs:

Alaska, according to interstate indicator data from 1991-93, is among the states with the lowest rates of controlled drug problems (ranked 40th according to the "Drug Problem Index" described in the included Interstate Substance Abuse Chartbook, among the 50 states). This finding is supported through the household telephone survey and the urinalysis results from our arrestee study. Dependence on controlled substances seems most problematic among the two youngest age groups of Alaska adults (18-24 and 25-44 years of age). Among controlled substances marijuana dependence is, by far, the controlled substance most subject to user dependence in Alaska according to the household telephone survey. Marijuana dependence appears to be most pronounced in the roadless areas of the State described as "the Bush" region - one of the four Alaska demographic subdivisions used for studies routinely conducted for the Center for Disease Control and other agencies by the Alaska Section of Epidemiology. (The other regions are described as "Urban", Gulf Coast" and Southeast". However, the substance abuse indicator study found arrest rates for controlled substances to be greatest in the Gulf Coast region. The survey found approximately 2.5% of Bush residents can be described as having a lifetime diagnosis of marijuana dependence or abuse, while Statewide the diagnosis is estimated to apply to 1.1% of the population. (It should be noted that the "lifetime" diagnosis includes anyone who both used a controlled substance and had a symptom as defined by DSM-III-R diagnostic criteria within the last 18 months prior to the household telephone survey.)

The marijuana problem is most pronounced among the 18-24 year age group (4.2% estimated as dependent, and an additional 1.0% as abusers), and is three times as likely to be found among men (1.7%) than among women (0.5%). Race and ethnicity also appear to impact the diagnosis: Alaska Natives and Native Americans evidenced marijuana dependency (1.9%) at a rate nearly double that of whites (1.0%). These demographic results were generally supported through urinalysis findings of the arrestee study, and through the NDATUS Alaska marijuana treatment data (Alaska ranked 8th in per capita persons receiving marijuana treatment, with 1.3 times more persons being treated than arrested).

Cocaine was identified by the household survey as the second most serious controlled substance subject to abuse and dependence among adult Alaskans. However, the number of individuals so diagnosed is small, with 0.2% receiving a current dependency diagnosis, the largest proportion (0.3%) in the urban part of the State, and with men predominating in this diagnosis by four to one over women. However, in the arrestee study, 18.5% of those volunteering for the study were diagnosed as abusing or dependent upon cocaine, and women were more likely than men to be diagnosed with cocaine dependence or abuse. Among Alaska's arrestees, whites were diagnosed with cocaine dependency at a rate more than twice as great as found among Alaska Natives while the survey data indicated a prevalence among whites only about 50% greater than that found among Alaska Natives. The majority of those identified as dependent were found to be severely dependent.

A caution regarding drug-related disease findings should be noted: Homelessness and the levels of four contagious diseases- HIV-AIDS, TB, hepatitis and syphilis- are associated with drug use. Their levels frequently correlate well with the levels of drug dependency and abuse estimated from survey, treatment and arrest data. This is not the case in Alaska. No HIV-AIDS data is

available from Alaska, but Alaska's TB rates are very high, and hepatitis-B rates are higher than would be expected according to drug-related data. This may result from (a) the inherent constraints imposed by a household telephone survey that will not reach the homeless or those without telephones, or (b) non-drug factors associated with public health or geographic conditions that may account for the contagious disease variance.

The household survey found 0.1% of adult household residents Statewide evidenced a dependency on amphetamines, and 0.1% on hallucinogens, with dependence concentrated among the 18-24 year age group. Among this group 0.6% were diagnosed as dependent upon amphetamines, except for a lower rate in the Bush region, and 0.3% were diagnosed for hallucinogen dependence - except in the Gulf Coast region where the prevalence was indicated to be 0.9%). Although the percentage is small, Native Alaskans showed a prevalence of amphetamine dependency four times greater than among whites.

C. Need For Treatment

Findings from these studies as well as on-going studies are intended to be used for policy planning and program adjustment purposes. Among the key findings revealed through the survey regarding the need for treatment are that while need exceeded 14% among adults in all four BRFSS regions of the State, the estimated need for alcohol and drug treatment are greatest in the Bush and Southeast BRFSS regions. These regions are where in excess of 16% of the adult population is in need of treatment. Again, the greatest need for treatment among adults was found to be for alcohol dependency and abuse. Statewide 12.6% of adults are estimated to be in need of treatment for alcohol dependency or abuse, while only 0.5% are estimated to be in need of treatment for drug dependency; and an additional 1.2% in need of treatment for both alcohol and drug dependency. The need for drug or combined dependency treatment appears to be greatest in the Bush BRFSS regions, in which 1.1% of the adult population is estimated to need treatment for combined or drug dependency or abuse. A diagnosis of marijuana dependence contributed significantly to the formulation of this Bush regional estimate, as the estimated marijuana dependence/abuse rate of 1.3% was more than double that found in any other region of the State.

State funded research conducted by the Institute for Circumpolar Health Studies assisted the Division of Alcoholism and Drug Abuse in measuring the effectiveness of the ASAP program in reducing the number of re-offenses of alcohol/drug related offenders in several sites throughout the state - Juneau, Anchorage, Fairbanks & Mat-Su. A significant finding of the study was that 65-66 percent of the clients referred to the ASAP program on their first DWI did not re-offend during a subsequent 3 year period.

The chemical dependency treatment outcome study, or New Standards report, provides data on 1024 residential patients and 510 outpatients who consented to the follow-up study. The researchers were successful in contacting 42% of the eligible residential patients and 54% of the eligible outpatients one year after admission to treatment. The one-year outcome results provide a psychosocial and clinical profile of the residential and outpatient groups, as well as important job, medical, and legal cost-offsets impacted by treatment.

The attached executive summaries and reviews, along with the accompanying Interstate Substance Abuse Indicator Chartbook, provide a clear, detailed overview of the condition of

substance abuse and the needs for treatment within the State. The cooperation received in the data collection efforts from Alaska's public treatment programs, the Department of Public Safety, and the Department of Corrections were crucial to the accomplishment of these reports, and is greatly appreciated.

EXECUTIVE SUMMARY:

TECHNICAL REPORT

**ALASKA ADULT HOUSEHOLD TELEPHONE SURVEY
STATEWIDE and SUBSTATE PLANNING REGIONS**

Submitted to:

**Alaska Department of Health and Social Services
Division of Alcohol and Drug Abuse and to the Section of Epidemiology
of the Division of Public Health**

Submitted by:

**Alice Kroliczak, Ph.D.
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EXECUTIVE SUMMARY

The resources that have been made available by the Center for Substance Abuse Treatment (CSAT) and the Alaska Department of Health and Social Services, Division of Alcoholism and Drug Abuse (ADA), for conducting the Alaska adult household survey have expanded needs assessment efforts in Alaska during the 1997-1998 time period. The Gallup Organization has been pleased to join ADA in collecting data for a statewide adult household survey, administered by telephone in the state of Alaska, as part of Alaska's family of studies to develop needs assessment capabilities in the area of substance abuse and need for treatment. Substate planning regions in Alaska are the Urban, Gulf Coast, Southeast, and Bush regions.

The purpose of the adult household telephone survey was: To provide information on substance dependence, abuse, prevalence and the extent of unmet need and demand for substance abuse treatment services for adults in Alaska at the state and substate planning region level.

Sample Methodology

For the purpose of sampling, the adult population was stratified into four regions. Sampling was accomplished independently within each region using the truncated Casady-Lepkowski method of telephone sampling. The goal of Gallup's sampling scheme was to estimate treatment needs for adult alcohol and other drug users aged 18 and older. Gallup also oversampled persons in the 18 to 44 age group by substate planning region since this is the age group with relatively higher rates of illicit drug use. Specific efforts were made to estimate treatment needs for alcohol and other drugs among injection drug users and women of childbearing age.

Maximization of Data Quality

Two critical aspects of maximizing data quality for this project were maintaining respondent confidentiality and maintaining quality control over interviewers' work. In order to ensure confidentiality: 1) all Gallup personnel who worked on this project signed a statement promising that they would maintain the confidentiality of all survey data; and 2) no personal identifying information was delivered to ADA with the final adult survey data set. To maintain quality control over interviewers' work, supervisors silently monitored the interviewers' work and checked interviewers' completed work for accuracy and completeness.

Characteristics of the Sample

Demographic data for persons who participated in the study provide the following information about the sample by county:

- 68.3% of the respondents were ages 18-44 with slightly more than half (55.9%) of the respondents found in the 25 to 44 years of age category.

- In all regions over 64% of the respondents were 18-44 years of age. This was due to the oversampling of persons of this age group.
- Females comprised 54.1% of the sample. For all regions, over half of the sample was female.
- More than seven in ten (72.7%) of the sample was white and 21.1% was Native American or Alaskan Native. "Other races" made up 6.2% of the sample.
- Most of the respondents had a high school education or greater (92%).
- 42.3% reported an income of less than \$40,000.

SUBSTANTIVE ANALYSIS AND FINDINGS

Diagnosis Estimates for Dependence and Abuse

To determine whether a person should be diagnosed as dependent on or abusing a particular substance, the diagnosis criteria of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 3rd revised edition (DSM-III-R), was used. To make a diagnosis, a respondent is asked a series of nine questions about his or her use of alcohol or a particular drug. A diagnosis of substance dependence requires meeting three of the nine DSM-III-R criteria and having some of the symptoms of disturbance that have persisted for at least one month, or have occurred repeatedly over time. The three criteria for dependence measure: 1) undesired excessive use, including resulting tolerance and withdrawal sickness; 2) problems in the critical realms of a person's life that are a result of excessive use; and 3) failed attempts to control substance use without help.

A diagnosis for substance abuse requires that two criteria are met: 1) continued use despite having recurrent social, occupational, psychological or physical problems exacerbated by it; and 2) recurrent use in situations where it is physically hazardous. Summary Tables 1a-3 present lifetime and current dependence and abuse estimates as well as estimates of lifetime treatment needs. All estimates are based on current (1997) estimates of census data. The weighting of the Alaska household survey data was done in early 1998, and the Claritas 1997 estimates were the most current estimates at the time.

Analysis of the Alaska adult household survey data produced the following lifetime diagnosis estimates for dependence and abuse.

- 9.7% (approximately 41,108) of adult Alaska residents were dependent on alcohol, and another 4.1% (approximately 17,294) were alcohol abusers.
- The proportion of alcohol dependence varied across all regions ranging from 8.5% to 11.9% for the Gulf Coast and Bush regions respectively.

- Alcohol abuse estimates ranged from 3.2% for the Bush region to 4.9% in the Southeast region.
- Diagnosis estimates of alcohol dependence and abuse were twice as high among men compared to women.
- Native Americans and Alaskan Natives had the highest lifetime estimates of alcohol dependence (14.9%) while the estimate for whites was 9.2%.
- The rate of marijuana dependence (1.1%) was about one-tenth of the estimated alcohol dependence (9.7%). Abuse of marijuana was low (0.4% at approximately 1,761 adults).
- Low rates of hallucinogen, cocaine, and amphetamine dependence (0.1%, 0.2%, and 0.1% respectively) were found in Alaska.
- No respondents were diagnosed as dependent on heroin or inhalants.
- Statewide abuse of hallucinogens was 0.1%, while no respondents were diagnosed as abusers of cocaine, heroin, inhalants, or amphetamines.
- Adults under 65 years of age were much more likely than those 65 or older to be dependent on or abusing drugs and alcohol.

Summary Table 1: Lifetime Estimates of Dependence and Abuse of Alcohol and Illicit Substances, Statewide and by Substate Planning Region

	<i>Substate Planning Region</i>				
	<i>Alaska</i>	<i>Urban</i>	<i>Gulf Coast</i>	<i>Southeast</i>	<i>Bush</i>
<i>Percentage diagnosed as</i>	N=423,997 (n=8,167)	N=277,071 (n=2,543)	N=50,796 (n=1,587)	N=52,538 (n=2,017)	N=43,592 (n=2,020)
<i>Dependent on:</i>					
<i>Alcohol</i>	9.7	9.4	8.5	10.5	11.9
<i>Marijuana</i>	1.1	1.0	1.0	1.1	2.5
<i>Hallucinogens</i>	0.1	0.0	0.1	0.1	0.1
<i>Cocaine</i>	0.2	0.3	0.1	0.2	0.1
<i>Heroin</i>	0.0	0.0	0.0	0.0	0.0
<i>Inhalants</i>	0.0	0.0	0.0	0.0	0.0
<i>Amphetamines</i>	0.1	0.1	0.2	0.1	0.0
<i>Abusing:</i>					
<i>Alcohol</i>	4.1	4.1	3.9	4.9	3.2
<i>Marijuana</i>	0.4	0.4	0.5	0.4	0.2
<i>Hallucinogens</i>	0.1	0.1	0.0	0.0	0.0
<i>Cocaine</i>	0.0	0.0	0.0	0.0	0.0
<i>Heroin</i>	0.0	0.0	0.0	0.0	0.0
<i>Inhalants</i>	0.0	0.0	0.0	0.0	0.0
<i>Amphetamines</i>	0.0	0.0	0.0	0.0	0.0

Summary Table 2: Current Estimates of Dependence and Abuse of Alcohol and Illicit Substances, Statewide and by Substate Planning Region

	<i>Substate Planning Region</i>				
	<i>Alaska</i>	<i>Urban</i>	<i>Gulf Coast</i>	<i>Southeast</i>	<i>Bush</i>
<i>Percentage diagnosed as</i>	N=423,997 (n=8,167)	N=277,071 (n=2,543)	N=50,796 (n=1,587)	N=52,538 (n=2,017)	N=43,592 (n=2,020)
<i>Dependent on:</i>					
<i>Alcohol</i>	5.2	5.2	3.5	5.1	6.8
<i>Marijuana</i>	0.4	0.4	0.1	0.3	1.1
<i>Hallucinogens</i>	0.0	0.0	0.0	0.1	0.1
<i>Cocaine</i>	0.1	0.1	0.1	0.1	0.0
<i>Heroin</i>	0.0	0.0	0.0	0.0	0.0
<i>Inhalants</i>	0.0	0.0	0.1	0.0	0.0
<i>Amphetamines</i>	0.1	0.1	0.1	0.1	0.0
<i>Abusing:</i>					
<i>Alcohol</i>	2.1	1.9	1.8	3.5	2.0
<i>Marijuana</i>	0.1	0.1	0.1	0.2	0.1
<i>Hallucinogens</i>	0.0	0.0	0.0	0.0	0.0
<i>Cocaine</i>	0.0	0.0	0.0	0.0	0.0
<i>Heroin</i>	0.0	0.0	0.0	0.0	0.0
<i>Inhalants</i>	0.0	0.0	0.0	0.0	0.0
<i>Amphetamines</i>	0.0	0.0	0.0	0.0	0.0

Treatment Needs Based on Diagnoses

“Need for treatment” is defined as being in a state of substance abuse or dependence and requiring help to stop or cut down on substance use, to prevent relapse, or to recover from the effects of use. The operational definition of treatment need is a diagnosis of a substance use disorder, either abuse or dependence. Indeterminate diagnoses were not included in the definition of the need for treatment. Using the diagnoses for dependence and abuse of substances, the number of persons who need treatment for alcohol only, drugs only, and both alcohol and drugs were determined.

- 12.6% of adults (about 53,268 persons) in Alaska need treatment for alcohol only. Another 1.2% (approximately 5,134 persons) need treatment for both drugs and alcohol. 0.5% (approximately 2,270 persons) need treatment for drugs only.
- The proportion of persons who need alcohol treatment varies across the substate planning regions.
- The estimated need for alcohol treatment was found primarily in the 18-64 year old segment of the population (more than 10%). About half this rate, 5.1%, was reported by the 65 and older age group.
- A pronounced need for alcohol treatment only (48%) as well as both drug and alcohol treatment (14.5%) was found among injection drug users.

Summary Table 3: Lifetime Estimates of Need for Alcohol and Other Drug Treatment, Statewide and by Substate Planning Region

<i>Need for:</i>	<i>Alaska</i> N=423,997 (n=8,167)	<i>Substate Planning Region</i>			
		<i>Urban</i> N=277,071 (n=2,543)	<i>Gulf Coast</i> N=50,796 (n=1,587)	<i>Southeast</i> N=52,538 (n=2,017)	<i>Bush</i> N=43,592 (n=2,020)
<i>Alcohol Treatment Only</i>	12.6	12.3	11.3	14.4	13.5
<i>Drug Treatment Only</i>	0.5	0.4	0.7	0.6	1.1
<i>Both Alcohol and Drug Treatment</i>	1.2	1.2	1.0	1.0	1.6

Unmet Demand for Self-Reported Treatment Needs

For policy planning purposes, the measurement of unmet demand is a key objective of needs assessment. "Unmet demand" is defined as the number of people who need and want treatment, but who have not received it because it was unavailable. Presumably, unmet demand is the prime reason for seeking additional funds, changing allocations of existing funds, and developing new programs that are appropriate for underserved populations. In the adult household survey, respondents were asked if they received treatment in the last year and, if so, what kind they obtained and if they had a desire for more treatment. For those who did not receive treatment in the past year, respondents were asked whether they needed treatment in the past year, whether they would have obtained treatment if it had been available, what type of treatment they would have wanted, and what obstacles, if any, prevented them from receiving treatment.

Among those who received treatment in the past 12 months and desired more treatment... (N=1,093)

The vast majority of Alaska adults who desired more treatment for their substance use problem were found to be aged 25 to 44 (79%). These persons were residents of all regions.

- 50.3% of the persons who desired more treatment for their substance use problem were women. Again, these persons were residents of all regions, with the largest proportions in the Urban and Southeast regions (55.4% and 54.7% respectively).
- Over two-thirds (72.8%) of the persons who desired more treatment were white.
- Among women of childbearing age, 50.3% desired additional treatment. These women were found in all regions except the Gulf Coast.
- Among injection drug users, 21% desired more treatment. These individuals were found in all regions, with the largest proportion (26.9%) in the Urban region.

Among those who desired treatment but did not obtain treatment in the past 12 months... (N=1,622)

- All adults (100%) who desired treatment but had not obtained treatment in the past 12 months were ages 18 to 64. More than three-quarters (79%) of the adults who desired treatment were ages 25 to 44.
- 59.6% of the adults who desired treatment but had not obtained treatment in the past 12 months, were men. This proportion of men was not uniform throughout the state. It ranged from 59.0% in the Urban region to 90.4% in the Bush region.
- More than two-thirds of adults who desired treatment but had not received treatment were white.
- Among those who did not receive treatment in the past 12 months, but desired treatment, the largest proportion were women of childbearing age (40.4%).
- Of the adults who desired treatment, 12.7% were injection drug users, and all of these drug users were in the Urban region.

Obstacles to Treatment

Among those who received treatment in the past 12 months and desired more treatment...(N=1,093)

Adults who received treatment in the past 12 months and who cited obstacles to receiving more treatment were found in all regions. The following obstacles were reported by 25% or more of these respondents on a statewide basis:

- Lack of insurance or other means to pay for treatment
- Specific treatment type was not available
- Program did not have the special services they needed.

Among those who desired treatment but did not receive treatment in the past 12 months...(N=1,622)

Adults who cited obstacles to obtaining treatment in the past 12 months were found in all regions. The following obstacles were reported by 25% or more of these respondents on a statewide basis:

- Lack of insurance or other means to pay for treatment
- Programs put them through too much red tape
- Long distance between them and the nearest treatment facilities
- Treatment facilities were full, and
- Could not get the type of treatment they wanted.

Conclusions

- 9.7% of adult Alaska residents were dependent on alcohol and another 4.1% were diagnosed as alcohol abusers. This translates into approximately 58,402 adult Alaska residents in need of treatment for alcohol.
- Looking at persons who are abusing or dependent on drugs only, 0.5% percent are in need of treatment. This translates into 2,270 persons needing treatment for drugs only.
- Among the defined age groups, the need for alcohol treatment is most pronounced in adults ages 25 - 44 (14.9%).
- 21% of the persons who had received treatment in the past 12 months and desired more treatment were injection drug users.
- The major obstacles to receiving treatment reported by persons who had received treatment in the past 12 months and desired more treatment were: lack of insurance or other means to pay, specific treatment type was not available, and the programs did not have the special services they needed.
- 40.4% of persons who desired treatment but had not received treatment in the past 12 months were women of childbearing age. Slightly more than one in eight (12.7%) were injection drug users.
- Obstacles to receiving treatment cited by those who desired it but had not received any treatment in the past 12 months included: lack of insurance or other means to pay, the programs put them through too much red tape, the nearest treatment facilities were too far away, the treatment programs were full, and respondents could not get the type of treatment they wanted.
- The data show that alcohol treatment needs varied across the four defined substate planning regions in Alaska.

EXECUTIVE SUMMARY:

TECHNICAL REPORT

**SUBSTANCE ABUSE INDICATOR STUDY
FOR TREATMENT RESOURCE ALLOCATION**

Submitted to:

**Alaska Department of Health and Social Services
Division of Alcohol and Drug Abuse and to the Section of Epidemiology
of the Division of Public Health**

Submitted by:

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December 1998**

Executive Summary

The Alaska Substance Abuse Indicator Study (SAIS) was designed to allow the Alaska Division of Alcohol and Drug Abuse and Division of Public Health (ADA /DPH) to coordinate and compile related data within the state of Alaska on substance abuse; to develop substance abuse indicator models for application to allocate treatment service resources in the state of Alaska; and to understand the context of substance use in the state by looking at the trends of common indicators. In addition, the SAIS was also expected to improve communication linkages between ADA /DPH and those public and private agencies which monitor direct and indirect substance abuse indicators in order to further expand the utility of existing information.

Background

ADA /DPH currently takes into consideration the existing substance abuse indicator data at best marginally when determining substance abuse treatment resource allocation. ADA /DPH attempts to put core substance abuse services in each region. ADA /DPH requires needs assessment data to assess the proportion of the population in need of treatment which is able to receive treatment and the number of persons still in need of treatment in order to guide planning efforts. The division guides its treatment services resource allocation decisions on the basis of the population size, substance abuse prevalence and the need for core services in each region. ADA /DPH sought to address scientifically treatment planning needs, and received funding by the Center for Substance Abuse and Treatment (CSAT) to contract with The Gallup Organization (Gallup) to explore alternative approaches for resource allocation decisions.

The SAIS compared and contrasted three categories of treatment resource allocation models: 1) *population-based model*, 2) *indicator-based model*, and 3) *household survey-based model*.

The population-based model typically considers only the population size of the geographic unit in allocating resources. This approach may consider the variations in local cost index, but would hardly consider the data on local treatment service need.

The household and indicator-based models, in contrast to the population-based model, consider the local treatment need in allocating treatment resources. The household survey-based model considers the locally estimated need for treatment services. Treatment need, as measured in the latest Gallup adult household survey, is defined as those adults who were diagnosed as dependent on alcohol, drugs, or both drugs and alcohol, and those diagnosed as abusing one or more substances, as measured by the Diagnostic Statistical Manual (DSM-III-R) criteria. The main limitation in assessing treatment need with the household survey is that the data are expensive to collect and are not collected routinely by the state.

The indicator-based model offers a promising alternative approach, which is not only less costly but also promotes using the existing data from other state agencies. The indicator-based model uses the secondary data to determine the prevalence of substance abuse at the region level.

Method

The study was implemented from July 1996 to December 1998 in three phases: 1) data collection and coordination, 2) indicator selection and validation, and 3) modeling and resource allocation. Gallup, with assistance from ADA /DPH, collected substance abuse indicator data for the five year period of 1990 to 1994. The data were subjected to modeling efforts in a series of steps:

- Step 1: Data on the substance abuse indicators were described as the *rates* (per 100,000 population) to allow for comparisons across the boroughs. The *rates* were calculated by using the region level data on each substance abuse indicator (such as number of arrests, mortality etc.) as the *numerator* and the six year (1990-95) average of Alaska Population or 1995 Alaska Population as the *denominator*.
- Step 2: These rates were used to calculate the *severity indices* for each indicator and each region. Severity Indices were expressed on a scale of 0 to 100, where score of 100 fixes the top of the range of substance abuse problem. A region with the highest rate on a given indicator will have 100 as its severity index for that indicator. All other severity indices within a given region are expressed as a percentage of the largest problem.
- Step 3: Severity indices were combined to develop a *composite severity index* (CSI) for each region. The CSIs score remains on a scale of 0 to 100 and is derived by taking an average of all severity indices for each region.
- Step 4: The CSIs were multiplied with the adult region population to estimate the region's *problem size*. The problem size is an estimate of the substance abuse problem derived by multiplying the CSI with the region's five (1990-94) year population average.
- Step 5: *Allocation factors*, in proportion to the region's problem size, were established to guide the treatment resource allocation decisions. The sum of the problem sizes of each region represents the total problem size for the state of Alaska and was used to establish the proportional resource allocation factor for each region in the state of Alaska.

Limits of the Data

The data on arrests and treatment cover the period 1990 to 1994, while the data on accident injuries, accident fatalities, and mortality cover the period 1991-1995. In addition to different dates for the indicator data, two of the indicator data sets -- for accident injuries and accident fatalities -- do not include either the race or geographical variables.

The lack of a geographical variable is particularly important when considering the modeling to determine resource allocation. The purpose of resource allocation is to assess what proportion of resources are needed in each of the four regions in Alaska, and thus the lack of the geographical

variable for two of the indicators means that those indicators cannot be used to make those resource allocation estimates.

Trends in Rates of Treatment, Arrests, Mortality, Accident Injuries and Accident Fatalities

A comparison of the five indicators across the five years for which they are available shows that overall the alcohol and drug abuse problem in Alaska showed some significant improvement by the mid-1990s compared to the early 1990s. Overall treatment increased, at the same time that mortality rates and injury rates from accidents declined. There was little change in accident fatality rates, however, which were quite low. Arrests related to alcohol and drug abuse increased slightly across the state as a whole over the five-year period.

Alaska Treatment Resource Allocation Model

Of all the substance abuse indicator data elements included in the Alaska SAIS database, only two were chosen for modeling purposes because complete data grouped by region, race, gender were available. Others (accidents and injuries data) could not be included because of incomplete data sets. The two indicators chosen for modeling were the following:

- Total alcohol and drug related arrests
- Total drug and alcohol related mortality

Gallup's analysis showed that the indicator-based model emerges as a promising approach for allocating treatment resources among boroughs. Gallup developed two indicator-based models, a telephone survey model, and a population model for ADA /DPH to guide its treatment resource allocation decisions. *Model One* includes both the indicators but calculates the rates using the average of 1990-95 populations. *Model Two* considers both the indicators but calculates the rates based on the 1995 Alaska population. *Model Three* is based on the results of the telephone survey, while *Model Four* is based on the size of population. The treatment resource allocation factors, using these models, are shown in Table 1.

	Urban Region	Gulf Coast Region	Southeast Region	Bush Region
Indicator Model #1	57.6%	13.8%	13.5%	15.1%
Indicator Model #2	58.0%	14.1%	13.4%	14.5%
Telephone Survey Model	63.7%	10.4%	13.9%	12.0%
Population Model	64.4%	11.6%	12.3%	11.7%

Recommendations

Gallup believes that the experience gained by ADA /DPH in designing and implementing the SAIS produced promising results. Gallup's recommendations focus on using the indicator-based model, updating the SAIS database, and meeting methodological challenges.

Using Indicator-Based Model

Gallup believes that ADA /DPH can achieve cost-effectiveness in resource allocation by guiding its decisions with the indicator-based model presented in this report. This approach not only takes into account the size of the population, but also the severity of the substance abuse problem in the region.

Updating the SAIS Database

Gallup encourages ADA /DPH to make arrangements to update the 1990 to 1994 SAIS database from cooperating agencies on an annual basis. In this way, any changes in the statistical relationships within and among social indicators can be determined. This would allow ADA /DPH to provide timely social indicator information to other public and private organizations with an interest in substance abuse prevention, treatment and related activities.

EXECUTIVE SUMMARY:

TECHNICAL REPORT

ALASKA SMALL AREA ESTIMATION STUDY

Submitted to:

**Alaska Department of Health and Social Services
Division of Alcohol and Drug Abuse and to the Section of Epidemiology
of the Division of Public Health**

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December 1998

EXECUTIVE SUMMARY

Introduction

The small area estimation study for the state of Alaska was undertaken as a follow-up task of the statewide Adult Household Survey conducted by the Gallup Organization in 1997-98. The main objective of the small area estimation study was to improve the overall precision of some of the key household study estimates at the 'small area' level. The resources provided by the Center for Substance Abuse Treatment (CSAT) and the Alaska Department of Health and Social Services, Division of Alcoholism and Drug Abuse (ADA) have expanded needs assessment efforts in Alaska during the 1997-1998 time period. The goal of the adult household survey was to provide information on substance dependence, abuse, prevalence and treatment needs for adults in the state of Alaska mainly at the state and the sub-state planning region level. For small areas, however, the traditional direct survey estimators based solely on the household study may have relatively large standard errors because of inadequate sample size at the 'small area' level. The objective of the small area estimation task, therefore, was to improve the precision of such small area estimates by taking advantage of relevant information at the small area level.

Methodology

In the state of Alaska, the boroughs within each sub-state planning region were chosen as 'small area' for the purpose of this small area estimation analysis. Estimates were computed to provide information on dependence, abuse, severity and treatment need for Alcohol, Marijuana and other drugs. Estimates for both lifetime and current diagnosis were derived. The analysis was carried out following the methodology proposed by Chattopadhyay et al. (1996). A detailed description of the estimation method is discussed in Section 2 of this report. Empirical Bayes estimates were computed at the small area (borough) level. In order to evaluate the appropriateness of the small area estimation methodology, Section 3 tables also include both the direct survey estimates (based on adult household survey data) and the small area estimates at the borough level. As expected, the small area estimates were, in general, found to be more precise than the direct survey estimates at the borough level.

Section 3 of this report presents the small area estimates for each borough. The estimates were computed for the following variables: (i) Diagnosis of alcohol dependence, abuse, and severity of alcohol dependence (ii) Diagnosis of marijuana dependence, abuse, and severity of marijuana dependence and (iii) Diagnosis of other drugs dependence, abuse, and severity of other drugs dependence. The 'other drugs' included the following five drugs: Hallucinogen, Cocaine, Heroin/Opiate, Amphetamine and Inhalants. Since very few respondents were diagnosed as dependent or abusers of these drugs particularly at the borough level, these drugs were put together in the 'other drugs' category. Respondents with diagnosis of dependence on any one of the five drugs, for example, were treated as diagnosed for dependence on 'other drugs.' For the severity variable, all respondents with diagnosis of severe dependence (on alcohol, marijuana or other drugs) were treated as being diagnosed for severity. The remaining (no severity, mild severity or moderate severity) were treated as being not diagnosed for severity. Besides the lifetime diagnosis variables mentioned above, small area estimates were also computed for

current diagnosis variables for alcohol, marijuana and other drugs. Using the diagnoses for dependence and abuse of substances, small area estimates of the percentage of adults who need treatment for alcohol only, drugs only, and both alcohol and drugs were also derived at the borough level. The definitions of diagnosis of dependence, abuse or severity according to the DSM-III-R are available in the adult household study report.

The small area estimation analysis was based on the Alaska adult household survey data and current census data. For details of the methodology, definition of terms and data collection procedures used in the adult household study, please refer to the adult household survey report (1998) submitted by the Gallup Organization. The current estimates of the census data were obtained from the on-line database called CLARITAS in Ithaca, New York.

Major Findings

The small area estimation was carried out using the sample data of the Alaska Adult household Study. The sample size (# of completed interviews) at the borough level varied significantly. The maximum sample size was (1534) in Anchorage whereas the minimum size (49) was in Bristol Bay and Lake and Peninsula. Besides Anchorage, the boroughs with relatively higher sample size were Kenai Peninsula (1062), Juneau (855), Fairbanks Northstar (548), Bethel (483) and Ketchikan Gateway (412). Some other boroughs with relatively smaller sample size were Haines (67), Aleutians East (77) and Aleutians West (99). Use of small area estimation techniques become particularly important for the boroughs with smaller sample size.

As explained in this report, the boroughs were chosen as the 'small areas' for this analysis. It is found that the proposed small area estimates (the empirical bayes estimates) are more reliable (in terms of sampling error or precision) as compared to the direct survey estimators (based on the adult study) at the borough level. The empirical bayes estimates are, therefore, recommended at the borough level particularly for boroughs with smaller sample size.

The following findings are based on data presented in Table 1 through Table 15 of Section 3 of this report.

Lifetime Diagnosis of Alcohol Dependence: The estimated percentage of adults with lifetime diagnosis of alcohol dependence varied across boroughs. Based on the empirical bayes estimates, the percentages ranged from 7.75 to 13.78. The top three boroughs were Yukon-Koyukuk (13.78), North Slope (13.78), Bethel (12.94). The bottom three boroughs were Kodiak Island (7.75), Kenai Peninsula (8.47), Matanuska-Susitna (8.96). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.75 to 2.76. The margin of error (precision) calculated as 1.96 times the square root of mse is always found to be less than 5 percent.

Lifetime Diagnosis of Alcohol Abuse: The estimated percentage of adults with lifetime diagnosis of alcohol abuse varied across boroughs. Based on the empirical bayes estimates, the percentages ranged from 2.33 to 6.67. The top three boroughs were Aleutians West (6.67), Prince of Wales (5.75) and Juneau (5.18). The bottom three boroughs were Bethel (2.33), Dillingham (2.83) and Wade Hampton (2.86). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.52 to 1.54. The maximum

margin of error (precision) calculated as 1.96 times the square root of mse is found to be only about 3 percent.

Lifetime Diagnosis of Marijuana Dependence: The estimated percentage of adults with lifetime diagnosis of marijuana dependence varied across boroughs. Based on the empirical bayes estimates, the percentages ranged from 0.59 to 2.88. The top three boroughs were North Slope (2.88), Wade Hampton (2.81) and Northwest Arctic (2.70). The bottom three boroughs were Matanuska-Susitna (0.59), Sitka (0.85) and Haines (0.85). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.25 to 0.89. The maximum margin of error (precision) calculated as 1.96 times the square root of mse is only about 1.74 percent.

Lifetime Diagnosis of Marijuana Abuse: The estimated percentage of adults with lifetime diagnosis of marijuana abuse did not vary much across boroughs. Based on the empirical bayes estimates, the percentages ranged from 0.13 to 0.59. The top three boroughs were Kodiak Island (0.59), Valdez-Cordova (0.53) and Kenai Peninsula (0.51) where as the bottom three boroughs were Wade Hampton (0.13), Northwest Arctic (0.14) and Bethel (0.14). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.05 to 0.23. The maximum margin of error (precision) calculated as 1.96 times the square root of mse is less than .5 percent.

Lifetime Diagnosis of 'Other drugs' dependence and abuse: The estimated percentage of adults with lifetime diagnosis of dependence or abuse on 'other drugs' did not vary much across boroughs. There were very few cases reported in these categories and the maximum percentage estimate for dependence and abuse was only about 0.59 and 0.12 percent respectively. The margin of error (precision) calculated as 1.96 times the square root of mse was also very small (less than 0.5 percent).

Any Current Alcohol Diagnosis: The estimated percentage of adults with any current alcohol diagnosis varied across boroughs. Based on the empirical bayes estimates, the percentages ranged from 5.07 to 10.03. The top three boroughs were Prince of Wales (10.03), Lake and Peninsula (9.90) and Nome (9.54). The bottom three boroughs were Kenai Peninsula (5.07), Valdez-Cordova (5.23) and Kodiak Island (5.52). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.66 to 2.15. The maximum margin of error (precision) calculated as 1.96 times the square root of mse is always less than 5 percent.

Any Current Marijuana Diagnosis: The estimated percentage of adults with any current marijuana diagnosis did not vary significantly across boroughs. Based on the empirical bayes estimates, the percentages ranged from 0.24 to 1.40. The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.10 to 0.47. The maximum margin of error (precision) calculated as 1.96 times the square root of mse is less than 1 percent.

Any Current Other Drug Diagnosis: The estimated percentage of adults with any current 'other Drugs' diagnosis did not vary significantly across boroughs. There were very few cases reported in this category and the percentages ranged from 0.05 to 0.37. The margin of error (precision)

calculated as 1.96 times the square root of mse was also very small (less than 0.5 percent).

Need for Alcohol Treatment only: The estimated percentage of adults needing alcohol treatment only varied across boroughs. Based on the empirical bayes estimates, the percentages ranged from 10.04 to 17.77. The top three boroughs were Prince of Wales (17.77), Aleutians West (16.95) and Ketchikan Gateway (15.59). The bottom three boroughs were Wade Hampton (10.04), Valdez-Cordova (10.95) and Kodiak Island (11.12). The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.85 to 3.08. The margin of error (precision) calculated as 1.96 times the square root of mse is found to be about 6 percent.

Need for Drug Treatment only: The estimated percentage of adults needing drug treatment only did not vary significantly across boroughs. Based on the empirical bayes estimates, the percentages ranged from 0.34 to 1.30. The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.10 to 0.56. The margin of error (precision) calculated as 1.96 times the square root of mse is found to be only about 1 percent.

Need for both Alcohol and Drug Treatment: The estimated percentage of adults needing both alcohol and drug treatment did not vary significantly across boroughs. Based on the empirical bayes estimates, the percentages ranged from 0.77 to 2.01. The sampling error as measured by the square root of mean square error (mse) for the estimates were in the range of 0.24 to 0.57. The margin of error (precision) calculated as 1.96 times the square root of mse is found to be only about 1 percent.

In summary, the number of adults diagnosed for dependence or abuse was significantly higher for alcohol as compared to other drugs. Among drugs excluding alcohol, marijuana had the maximum number of diagnosed cases. There were very few cases of diagnosis for other drugs consisting of Hallucinogen, Cocaine, Heroin/Opiate, Amphetamine and Inhalants. The pattern was similar for both lifetime and current diagnosis variables. The number of adults needing treatment was also much higher for alcohol as compared to other drugs.

EXECUTIVE SUMMARY:

TECHNICAL REPORT

**ALASKA
SUBSTANCE ABUSE NEED for TREATMENT
Among ARRESTEES (SANTA)**

**Prepared by
Johnson, Bassin & Shaw**

Submitted to:

**Alaska Department of Health and Social Services
Division of Alcohol and Drug Abuse and to the Section of Epidemiology
of the Division of Public Health**

December 4, 1998

EXECUTIVE SUMMARY

The Federal Center for Substance Abuse Treatment (CSAT) provided several State agencies with funding to perform a family of studies to estimate statewide need for substance abuse and dependency treatment. One member of the family of studies is the Substance Abuse Need for Treatment among Arrestees (SANTA). As its name implies, SANTA is designed to provide preliminary estimates of treatment need among arrestees. Arrestees are targeted for special study because substance use and abuse are especially high in this population and because substance use is often associated with the commission of other crimes. The six objectives of the Alaska SANTA study were to: (1) profile arrestees who met DSM-III-R diagnostic criteria for substance abuse or dependence; (2) profile arrestees whose urinalyses were positive for at least 1 of 10 drugs tested; (3) compare results of self-report data and urinalyses; (4) describe the substance abuse treatment histories of arrestees who had positive urinalyses as well as treatment histories of arrestees with DSM-III-R substance abuse/dependence diagnoses; (5) identify factors associated with chemical detection and DSM-III-R diagnoses of substance abuse or dependence; and, (6) compare current SANTA results with previous Drug Use Forecasting (DUF) survey results.

The study participants were 658 adult arrestees from four jails at three sites: Anchorage, Fairbanks, and Yukon/Kuskokwim. Sites were selected for ethnic diversity, degree of urbanicity, high flow rates, and relatively high numbers of female arrestees. Participants were asked to complete a modified DUF interview, which measures DSM-III-R substance abuse and dependence diagnostic criteria, treatment history, and demographics. Participants also were asked to provide a urine sample, which provided chemical evidence of recent ingestion of 10 drugs. Eligibility requirements included arrest within the previous 48 hours, so that urinalysis results would indicate whether the arrestee was under the influence at the time of arrest.

Interviews were conducted by local college students with criminal justice or social science training or other relevant experience. Interviewers were trained by staff from the Center for Substance Abuse Research (CESAR). Urinalysis was conducted by Quest Diagnostics, Inc. Data were analyzed by JBS. More than half of study participants received a substance abuse or dependence diagnosis. Also, more than half tested positive for at least one drug. Alcohol was the substance most frequently associated with an abuse/dependence diagnosis. Cocaine was the illicit drug most frequently associated with a DSM-III-R substance abuse/dependence diagnosis, followed by marijuana. Marijuana was the illicit drug most frequently associated with a positive urine test, followed by cocaine. Males were more likely than females to be diagnosed with marijuana abuse/dependence or test positive for marijuana. Females were more likely than males to be diagnosed with cocaine abuse/dependence or test positive for cocaine. Arrestees who were older were more likely than those who were younger to receive an alcohol or cocaine abuse/dependence diagnosis. Older arrestees were also more likely than younger ones to have a urine test indicating cocaine use. Younger arrestees were more likely than older ones to test positive for marijuana or to be diagnosed as abusing or dependent on marijuana. Alcohol abuse and dependence were more prevalent among Alaskan Natives than other ethnic groups, while Alaskan Natives were less likely than other ethnic groups to be diagnosed with cocaine abuse/dependence.

For marijuana and cocaine there was a higher rate of positive urinalyses than DSM-III-R diagnosis. This indicates that some arrestees who use these drugs either do not currently meet the criteria for an abuse/dependence diagnosis, or that they are not honestly reporting their symptoms. For narcotics and amphetamines, more arrestees were diagnosed with abuse/dependence than tested positive. Thus, many arrestees who are in need of substance use treatment for narcotics or amphetamine abuse/dependence either had not used their problem substance recently before arrest, or received a false negative urine test.

Urinalysis results and self-reports of last 3 days' use were often discrepant. With the exception of amphetamines, most arrestees who tested positive denied using the corresponding drug. In the case of amphetamines, the same proportion who tested positive reported using them within the last 3 days. Discrepant results may be due to resistance to giving socially undesirable responses, misunderstanding or procedural errors during the interview, or measurement error in the interview or urine tests.

Nearly three-fourths of those who tested positive for drug use had not received treatment within the past year. Over 60 percent of those with positive urinalyses who had not received treatment within the past year also did not perceive that they needed treatment for their substance use, indicating that this population is unlikely to seek or participate in treatment voluntarily. Just over 70 percent of arrestees with DSM-III-R substance abuse/dependence diagnoses did not report that they had received substance abuse treatment during the past year. Just under half of those with diagnoses who had not received treatment also did not perceive that they needed treatment. These findings suggest that efforts to treat this problem should include not only providing adequate treatment slots, but also outreach efforts to encourage participation.

Need for treatment may be predicted by ethnicity, sex, and type of crime committed. Logistic regression results indicate that white arrestees are more likely than others to test positive for drug use. A DSM-III-R diagnosis of illicit drug abuse/dependence was predicted by being white, female, or a felon. A DSM-III-R diagnosis of alcohol abuse/dependence was predicted by being non-white, over 25 years old, or a non-felon. DSM-III-R diagnoses of abuse or dependence on both alcohol and drugs were predicted by being white.

In general, Alaska SANTA study participants were less likely to test positive for drug use than 1996 DUF study participants. This was especially true for cocaine, opiates/narcotics and multiple drugs.

Current results are derived from a convenience sample, and therefore cannot be generalized to Alaska's population of adult arrestees. More precise estimates can be derived from further research on the number of arrestees in the State, and from estimates of need among a random, representative sample of arrestees.

The current preliminary finding that a total of 397 (60.3%) out of 658 arrestees meet criteria for a DSM-III-R diagnosis of substance abuse/dependence suggests that a large proportion, possibly the majority, of arrestees in Alaska may be in need of substance abuse treatment services

**Alaska's Treatment Needs Assessment:
Critical Review of Conducted Studies and Preparation
of Information for Systems Planning**

**Submitted to:
The Division of Alcoholism and Drug Abuse
State of Alaska, Department of Health and Social Services**

**By:
The North Charles Research and Planning Group of North Charles, Inc.**

March 11, 1999

Introduction

This report provides a summary of the study conducted by the North Charles Research and Planning Group (NCRPG) that produced the appended critical reviews of treatment needs assessment studies conducted for the State of Alaska. The State invested its State Treatment Needs Assessment Project (STNAP) round one support in three studies: 1) a survey of substance abuse treatment needs in the general household population, 2) a survey of recent arrestees that featured a computer-assisted personal interview concerning treatment needs and collected urine specimens to confirm the self-reported use of illicit drugs, and 3) a substance abuse indicator study. The substance abuse indicator study also included the use of a new methodology for distributing survey information compiled for four large geo-political groups of Alaska communities to smaller areas within the major groups. The survey contractors submitted draft final reports for the household survey (The Gallup Organization, Inc.), the Substance Abuse and Need for Treatment among Arrestees (SANTA) study (JBS, Inc.) and a Substance Abuse Indicator Study for Treatment Resource Allocation (Gallup). The contractors also submitted the data sets resulting from completed interviews in the household and arrestee studies along with information describing the process of the studies. The data collected from reporting agencies that were used in the indicator study were provided to NCRPG.

Alaska contracted with NCRPG to help evaluate the work of the contractors and to insure that the studies' methodologies and data are in adequate condition for the comprehensive substantive analyses that NCRPG will perform in round two of Alaska's STNAP. It is very important that these checks be conducted soon after the data collection is completed. If there are problems in the data sets, fixing those problems may be possible if they are discovered immediately. The evaluation of the materials delivered by the contractors will help assure that the contractors were compliant with the conditions of their contracts with Alaska. NCRPG evaluated the quality of the data and the adequacy of the documentation of the data and data collection procedures.

In many other fields, it is commonplace to have an independent expert advise the project sponsor regarding the technical adequacy of the work being completed. NCRPG used its unique background and general technical expertise to evaluate the studies conducted under contract with Gallup and JBS. As the CSAT technical assistance contractor for five years, NCRPG designed the data collection studies conducted by Alaska's contractors. NCRPG also reviewed final reports from many states with similar studies conducted by Gallup and JBS as well as by other state contractors. Frequently, NCRPG advised states about the technical adequacy of the finished product.

Household Survey

NCRPG evaluated the household telephone survey by reviewing analyzing the survey database and the adequacy (e.g., completeness) of the draft final report and the data collection procedures and outcome. The evaluation is included as Appendix A to this final report. The evaluation focused on the major concerns of how the response rate was defined, the components of the response rate including process measures such as the success in converting respondents who initially refused to participate into completed interviews, the sampling design, and procedures for weighting the sample to the population of the state.

NCRPG's overall evaluation of the telephone survey was that the information base accurately describes the current need for substance abuse treatment among people living in Alaskan households. Some of the strengths of the household survey conducted for Alaska include a satisfactory response rate, the use of an effective procedure for allocating more interviews to geographic areas where problems with substances were more prevalent, and estimates of the level of need for treatment that were consistent with estimates from other sources including the NCRPG substance abuse problem index and current levels of met demand for treatment. The information produced by the survey should make an important contribution to further efforts by ADA to improve treatment services.

The review pointed out the need for further processing of the data set that would recode responses now designated as "additional responses" that should be included into existing response categories. A number of interviews identified by the interviewers as of poor quality or self-reported by the respondents to be less than truthful needed to be examined and the results of the survey adjusted for any impact these cases might have on the outcomes. The procedure for weighting survey results to represent the population of Alaska needed to be better defined in the report, but we concluded that the method used fewer than the necessary number of age groups to compute population weights. NCRPG's review yielded several suggestions for improving Gallup's report of survey outcomes including the need to present need estimates based on the actual survey sample as well as after the survey statistics were applied to the state population.

SANTA Study

The evaluation of the SANTA study included topics similar to those used for the evaluation of the household survey, e.g., the quality of the data, and topics that are unique to SANTA studies. The evaluation of the SANTA study is included as Appendix B of this report. Among the concerns unique to SANTA studies that were considered in NCRPG's evaluation was the contractor's success in obtaining biological specimens (urine) for testing, the length of time between arrest and acquisition of a urine sample, the completeness of the report of the SANTA study with respect to documenting differences among sites, across arrest types, by the day and time of the arrests, and the differences between respondents who provided specimens and those who did not.

NCRPG's review of the draft report and inspection of the collected information set indicated that the SANTA study was conducted using procedures that were consistent with the study protocol. The information base resulting from the study seemed to be devoid of major flaws. We did find errors in the data definitions that suggested the need for a careful review of the data dictionary. Despite a high rate of refusal to provide biological samples and a high rate of underreporting of drug use (e.g., 60% of the arrestees who denied using marijuana in the last three days tested positive for the drug and 47% of arrestees who denied using cocaine had traces in their urine) the findings from the SANTA study show rates of recent drug use that are much higher than rates observed in the general population. For example, 58% of the SANTA respondents who submitted a urine sample tested positive for at least one drug.

The practical uses of the SANTA data primarily involve the criminal justice system. Features of the SANTA study design and questionnaire limit the study's ability to add to Alaska's knowledge about the statewide prevalence of current need for treatment. However, the SANTA

study outcomes could be profitably used to alert constituencies of the need to develop policies and strategies that would incorporate substance abuse treatment into the criminal justice system at the point of arrest. Providing treatment instead of or as part of imprisonment has become a major national agenda. The economy of providing treatment rather than incarceration merits further efforts in this area. The SANTA data on treatment need outcomes can be used to demonstrate just how large that economy might be in Alaska

Substance Abuse Indicator Study

The substance abuse indicator study was subjected to a review that focused on the selection of variables used in the estimation model, the documentation of the data, the quality of the data in the database, and the contractor's methods for determining reliability and validity for the estimation model. The review of the substance abuse indicator study is included in this report as Appendix C.

Gallup produced a social indicator model that estimated need for combined alcohol and drug treatment in four geo-political areas of Alaska using alcohol- and drug-related arrests and alcohol- and drug-related deaths. NCRPG concluded that other indicators besides those two could have been used profitably in the study. Using just the four major regions as the unit of analysis instead of the smaller census boroughs reduced the usefulness of the needs estimates for planning. Similarly, Gallup used demographic variables aggregated to the regional level with the result that demographic characteristics have little variance across regions. NCRPG's review of the Gallup study was critical of the lack of separate models for alcohol and drug treatment needs. We also noted that Gallup performed no tests of the validity or reliability of the social indicator model. Our review strongly suggested Gallup should give more attention to its report presentation. The graphs were hard to read and the formatting of tables included a confusing use of line numbers. In many displays, numbers were expressed in tens rather than units, but not labeled as such; no reason was provided for using a non-standard metric. There were many syntactical errors and inconsistencies in the body of the report. The explications of such key points as variable selection procedures and the current allocation criteria should have been clearer than they were.

In addition to the social indicator analysis, Gallup included a smaller study that applied a statistical method for using survey information available from large areas to estimate values in communities whose populations were too small to provide enough observations for reliable information. The discussion of the small area estimation procedure at the contractors conference in January concluded that the procedure, when applied to the unique geography of Alaska and the structure of Alaskan communities, did not produce small area estimates that were consistent with other models and experiential evidence.

The State of Alaska recognized the need for an effective method of projecting treatment need information across both time and communities. The initial effort to produce a social indicator based model was informative, particularly in pointing out the information needs of an effective model and the level of commitment necessary to develop a social indicator system that can be applied year after year. The Alaska STNAP studies funded by CSAT include the development of a permanent Alaska-based social indicator system.

Interstate Analysis

In addition to reviewing the reports of studies conducted in round one of the STNAP program, Alaska asked NCRPG to compare the preliminary results of the studies with similar findings from other states. The household survey review (Appendix A) and the SANTA study review (Appendix B) both include comparisons between Alaska's results and those observed in other states. The comparison among states of surveys of the general household population does help to place Alaska's substance abuse treatment needs in a state-level framework. For example, we found that Alaska had higher substance use rates than Montana and North Dakota, even though the demographic characteristics of the three states are similar in many respects. Marijuana treatment need estimates for Alaska were slightly lower than the estimates for Montana but much higher than the estimates for North Dakota. Comparisons among SANTA surveys do not support meaningful comparisons because the SANTA studies lack comparable methodologies for sampling and data collection. We reported the results of the severity of substance use related problems among arrestees in a number of other states in our SANTA study review (Appendix B) with a caution against over-interpreting differences between Alaska and other states.

The State wanted to know how Alaska compares to other states with regard to deaths, arrests, diseases, and treatment services related to substance abuse. Most of the funds for treatment services in Alaska come from State, rather than federal, sources. By documenting that Alaska's problems are especially severe and that other states may be doing more to combat the problems, planners can advise the legislature that more resources are needed. Alaska felt that the state-level comparative analyses should be done as soon as possible to spark interest in Alaska's STNAP and to open discussions among decision makers about changes in the amount of resources available and how the resources should be allocated. NCRPG included an interstate analysis in this small contract. That analysis, "How Does Alaska Stack Up? An Interstate Substance Abuse Indicator Analysis" is provided as Appendix D of this report. (EDITOR'S NOTE: This document has been replaced by an updated "Interstate Substance Abuse Indicator Chartbook" provided herein)

Contractors Conference

The Division of Alcoholism and Drug Abuse (ADA) accelerated the project schedule in order to be able to take advantage of opportunities in January and February to present information on the progress of the STNAP studies and findings from those studies to other agencies and governing bodies. In November, ADA requested that preliminary reviews of all the round one studies would be presented at a conference with the contractors that would take place on January 7th and 8th in Anchorage. NCRPG agreed adjust its schedule to satisfy ADA's request.

At the meeting in Anchorage, the contractors presented their preliminary final reports of the studies to representatives of ADA and the Epidemiology Group of the Department of Health and Social Services. The Gallup Organization was present at the meeting to discuss the household survey and the substance abuse indicator study. JBS staff participated by telephone. NCRPG's critical review of the preliminary final reports was represented by Dr. Richard LaBrie. The ensuing discussion provided clear direction to the contractors regarding how the reports needed to be revised to achieve an accurate and complete documentation of the study materials for transfer to ADA.

NCRPG also presented the results of their interstate analysis at this meeting. The demonstration of how Alaska compares to other states on important indicators of need for alcohol and drug treatment, how the contrasts among states can be clearly expressed using models that produce comprehensive indexes of both alcohol and drug treatment need, and how Alaska's treatment system is responding to the need for treatment were very well received. It was agreed at that meeting that NCRPG would make available the raw data used in the interstate analysis to assist ADA in its presentations of the STNAP program.

Summary of Tasks and Deliverables

NCRPG completed all of the tasks defined in the study protocol and submitted all the deliverables itemized in its agreement with ADA. NCRPG expended effort and resources in order to satisfy requests made by ADA. The major adjustments to ADA's interests and needs were, 1) accelerating the reviews of preliminary reports of round one studies in order to present the reviews at the beginning of January, 2) traveling to Anchorage to attend the two-day contractors meeting, 3) expanding the comparisons of round one studies to results from other states to include a separate interstate model of alcohol and treatment need and met demand for services, and 4) providing the detailed state-level information used in the interstate model to ADA to assist in their presentations.

The following is a brief summary of the study activities organized as a list of benchmark events.

<u>Date</u>	<u>Benchmark Event</u>
9/11/98	Contract between Alaska ADA and North Charles signed by both parties.
10/5/98	Conference on study tasks: NCRPG, Clay McDowall, and Loren Jones (by phone)
10/19/98	Monthly report sent to ADA.
11/2/98	Revised tasks, timeline, and deliverables defined.
11/3/98	Monthly report sent to ADA.
11/9/98	Study protocol sent to ADA.
11/10/98	January meeting date set and preliminary agenda defined.
12/1/98	Monthly report sent to ADA.
12/7/98	SANTA preliminary report received by NCRPG and ADA.
12/8/98	SANTA questionnaire and data dictionary received by NCRPG and ADA.
12/10/98	Substance abuse indicator study preliminary report received by NCRPG and ADA.
12/31/98	Final agenda for January meeting.
1/4/99	Draft review of household survey completed and sent to ADA.
1/5/99	Draft review of substance abuse indicator study completed and sent to ADA.

<u>Date</u>	<u>Benchmark Event</u>
1/6/99	Draft review of SANTA study completed. Report delivered at January 7 th 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 ALCOHOL 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-offense 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 Araj (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

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

July 7, 1999

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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 Carolina 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

¹As 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.

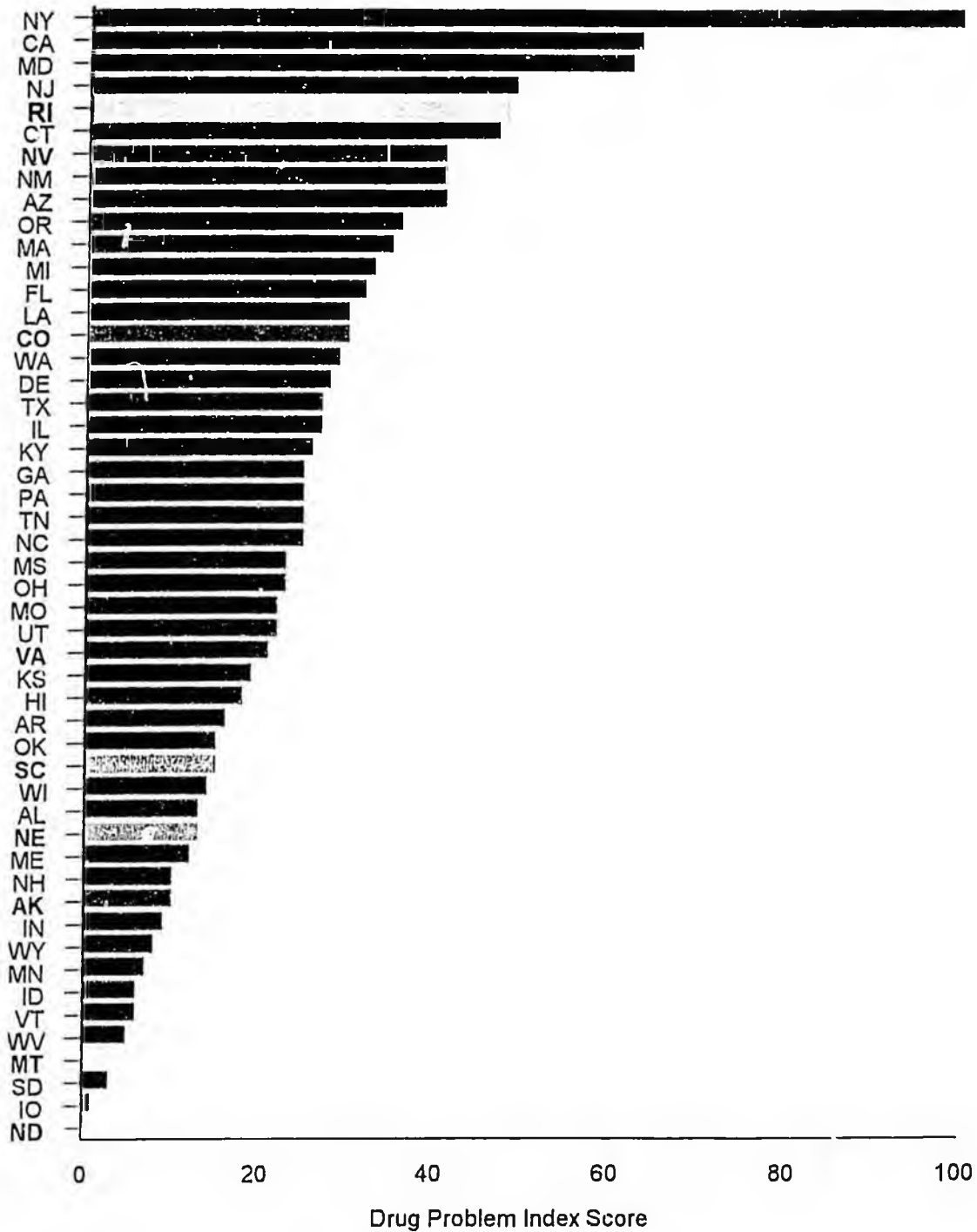
Analysis. When reporting these indicators, we have frequently focused on the comparative nature of the analysis by reporting the State's rank in the country. In all cases, the state with the most severe substance abuse problem is ranked 1st, and the state with the least severe problem is ranked 50th. 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.

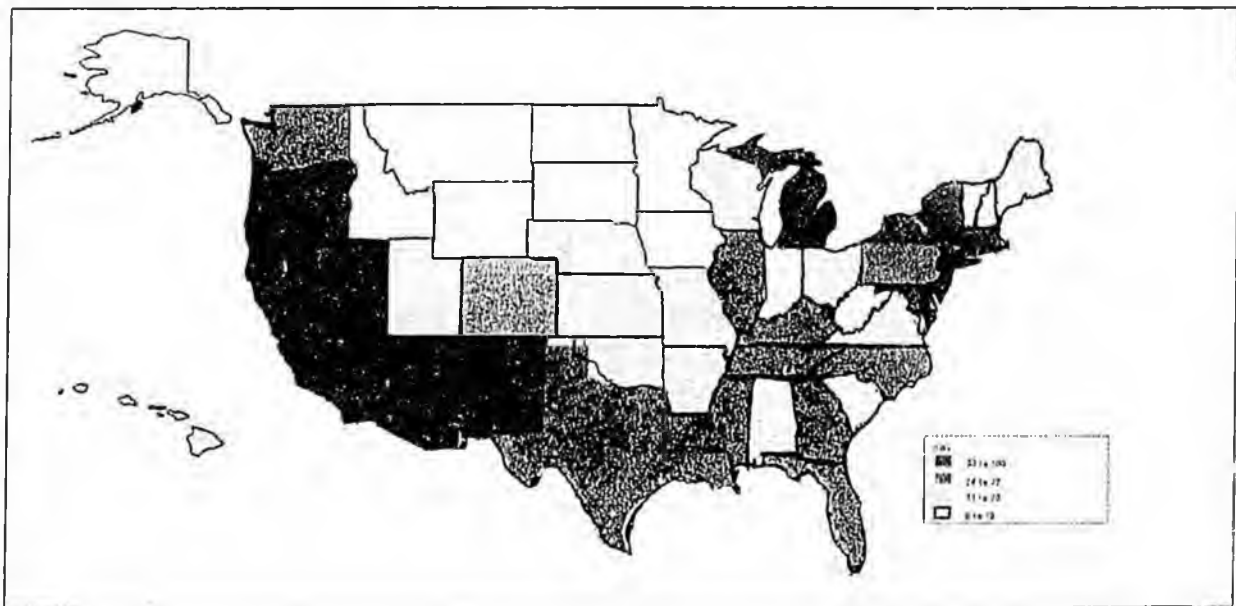
Figure 1. Drug Problem Index, 1991-93



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

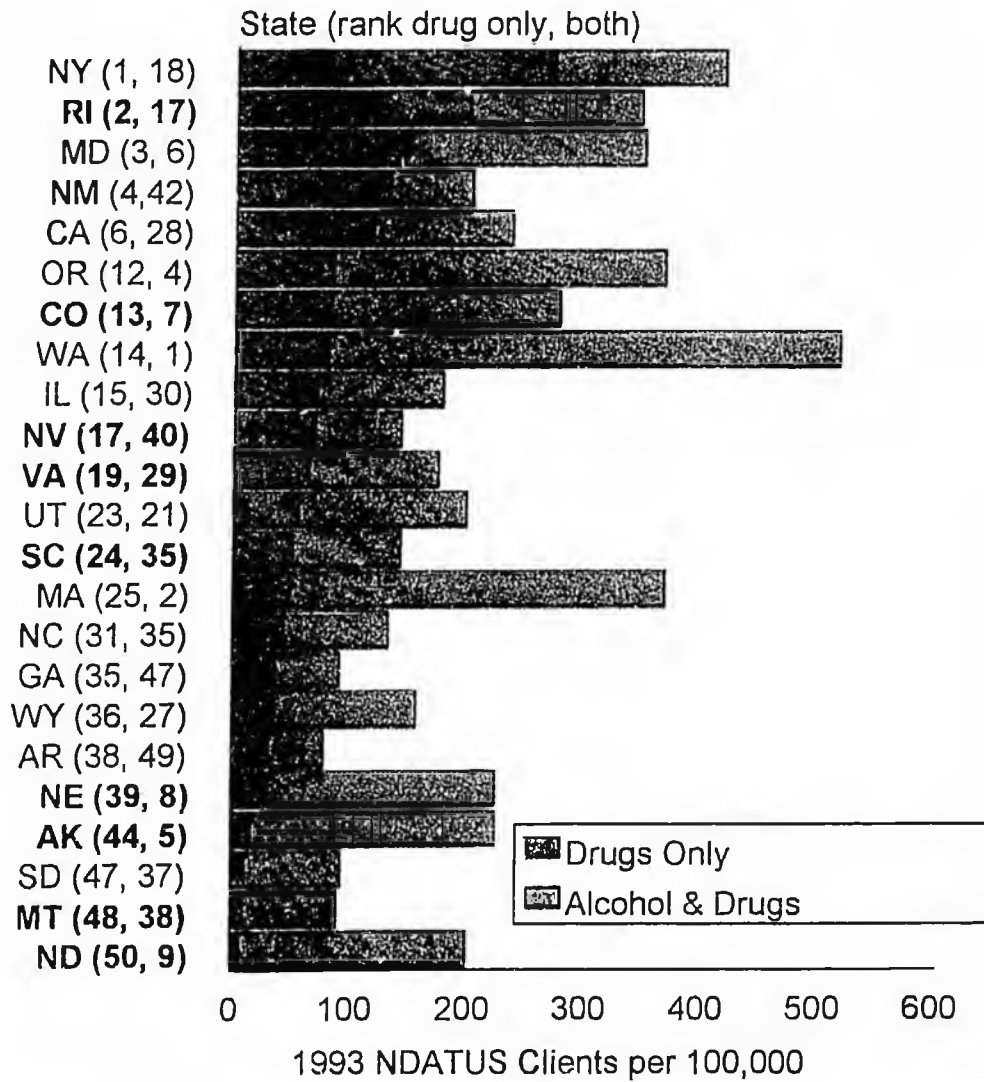
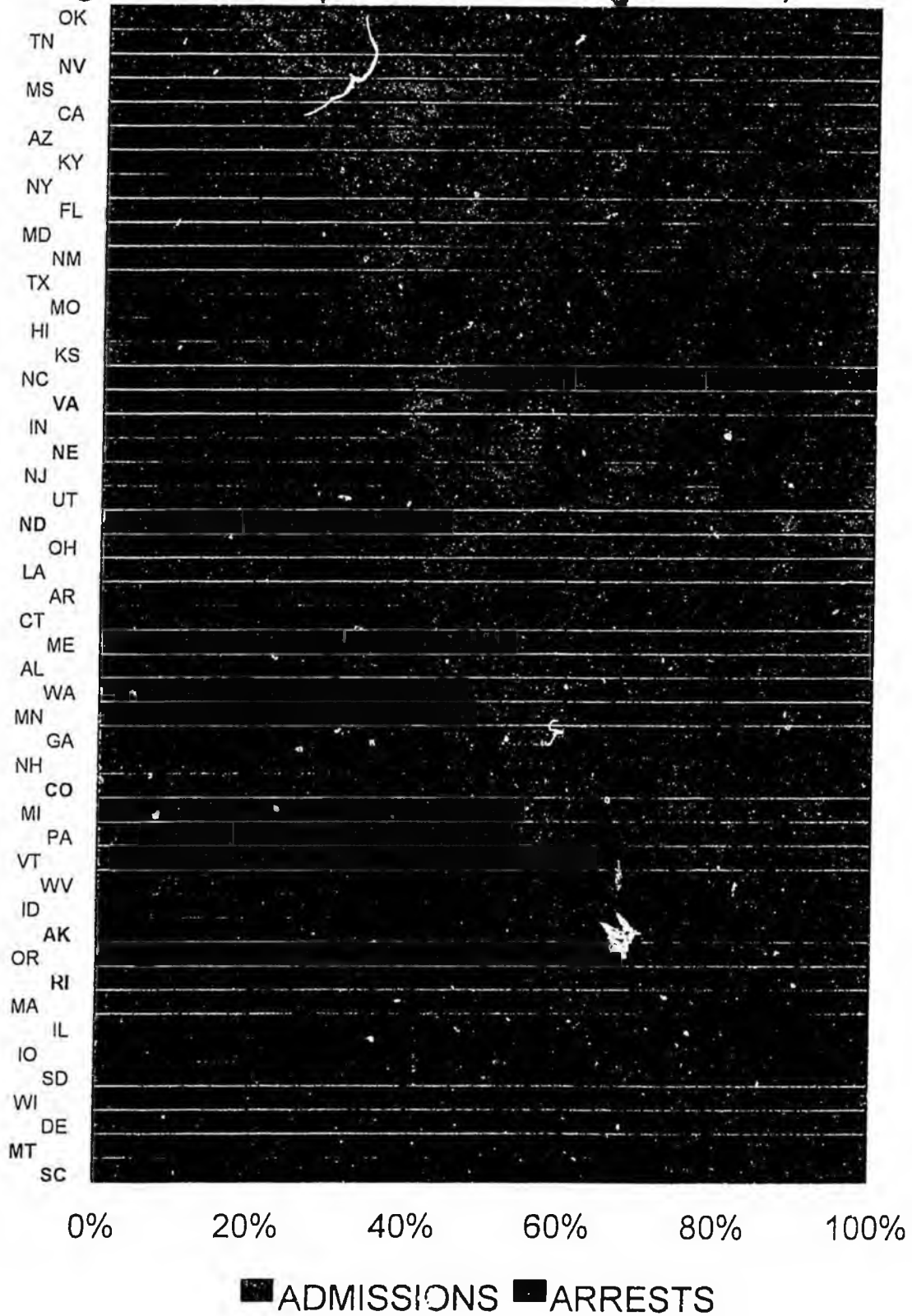


Figure 4. Responses to Drug Abuse, 1993



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)

²South 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%).

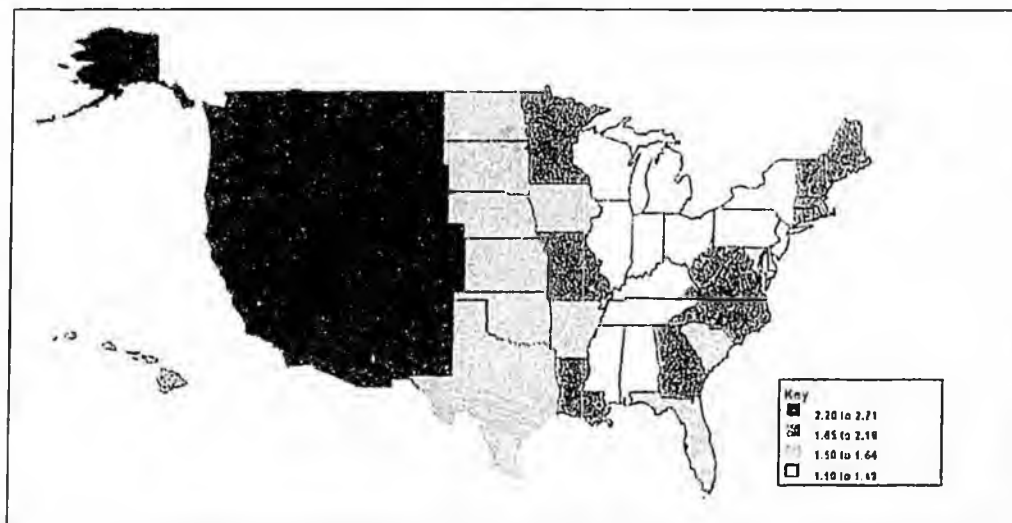
Although based on some of the same indicator data, the DPI and the Folsom et al. drug dependence estimates were not significantly correlated with each other (McAuliffe et al. 1999a). One key difference between the DPI and the Folsom et al. estimates is that the NHSDA's drug dependence measurements, upon 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



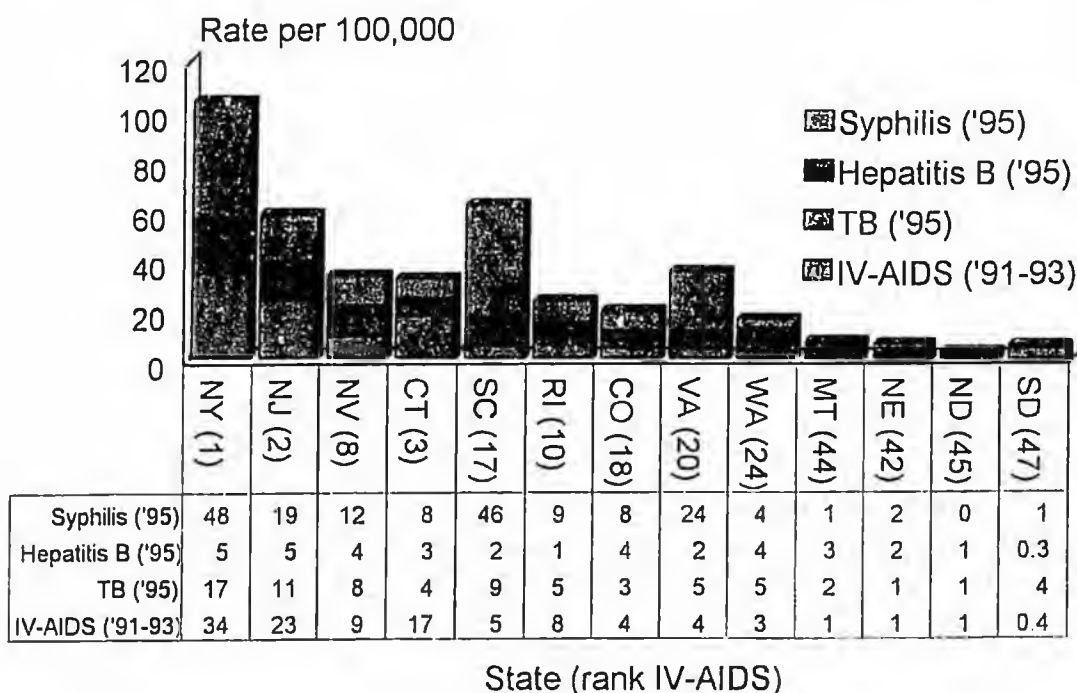
far, the Rand estimate of the percentage of drug dependent persons in Rhode Island is in the upper third of all states with regard to severity and is one of the highest of any East Coast state according to this measure. Virginia's synthetic estimate ranked above average (22nd), whereas South Carolina's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



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

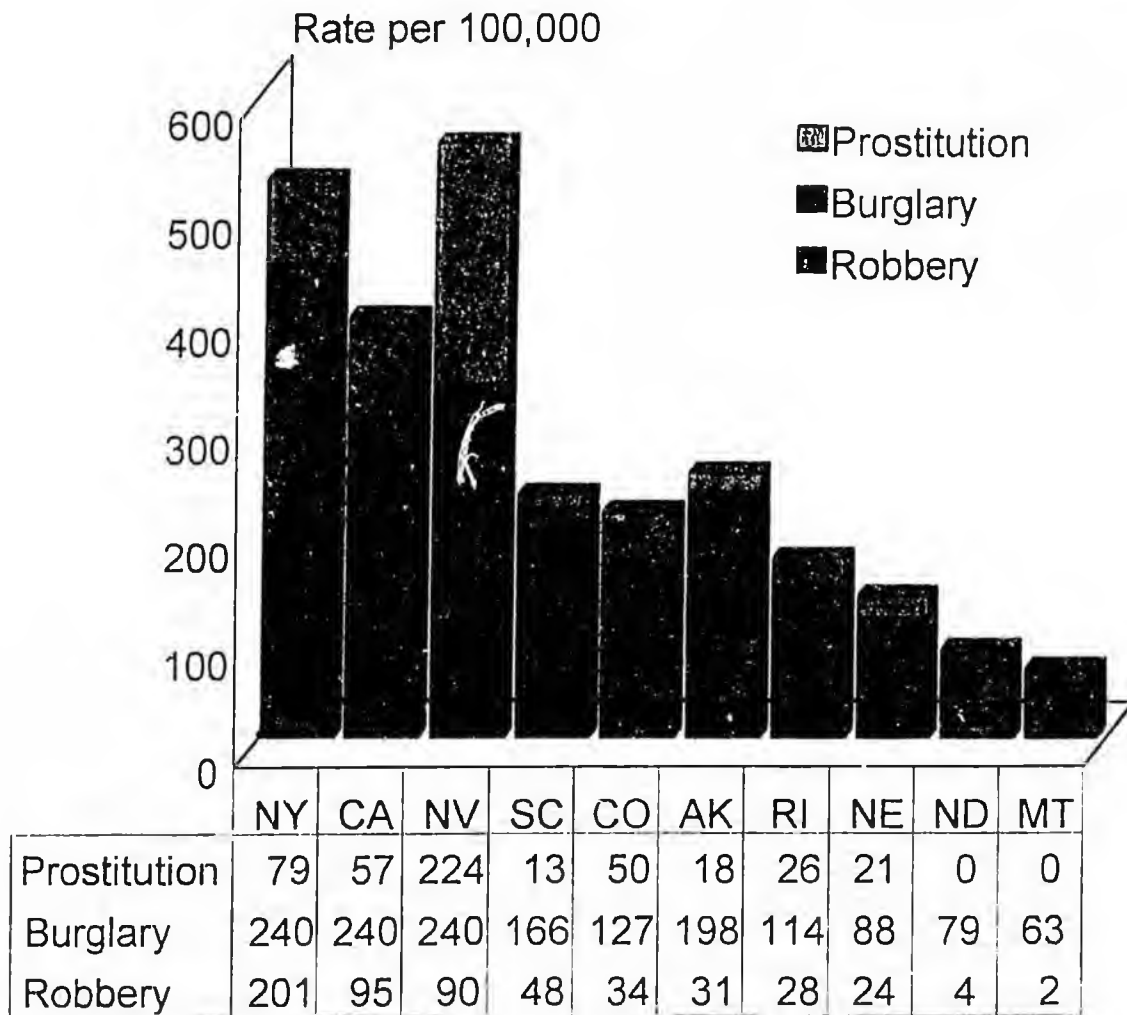
same trends among the states, although each disease has its unique features. After IV-AIDS, tuberculosis had the highest correlation with DPI ($r=.59$, $p<.05$). The rate of tuberculosis in 1995 was highest for New York, and North Dakota was second lowest behind Vermont. However, some states had higher 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.

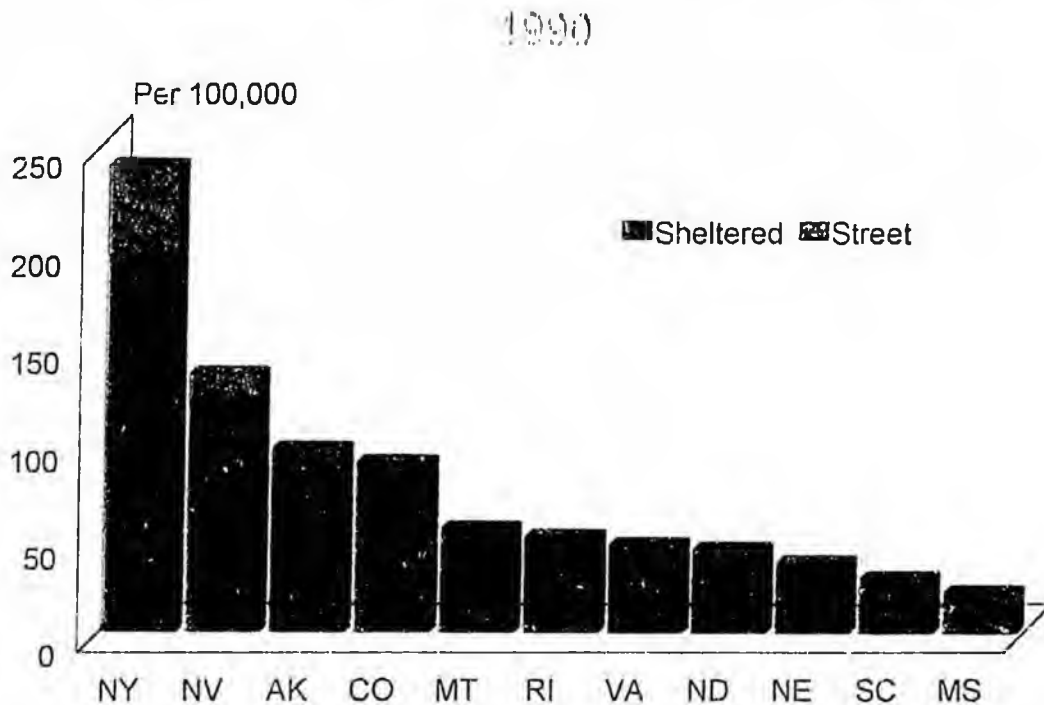
Drug-related Crimes. Certain categories of property crimes have long been linked to drug abuse. Recent studies of arrestees have found that a large percentage of the persons arrested for robbery, burglary, and prostitution test positive for drugs of abuse, and a large percentage of arrestees self-report 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



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



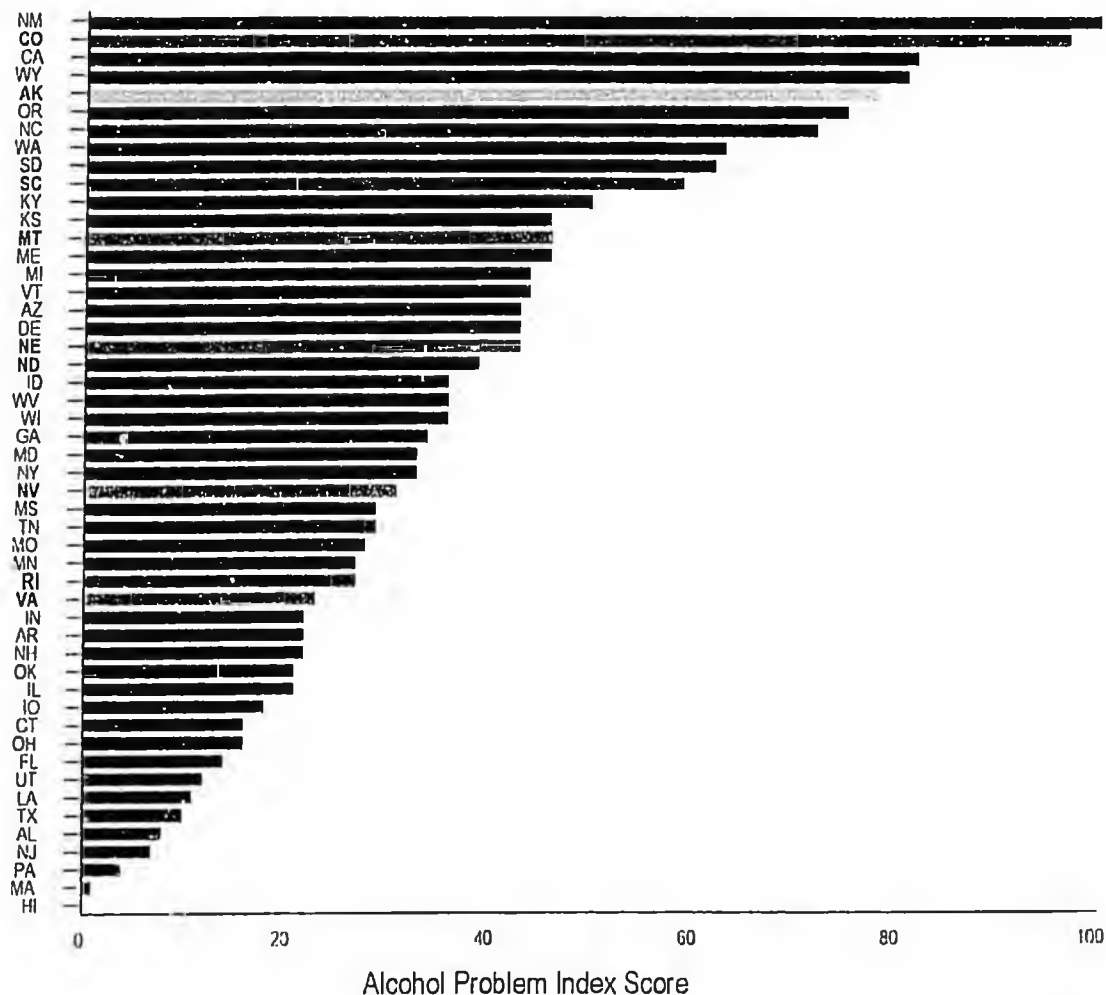
Summary: Drug Dependence

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

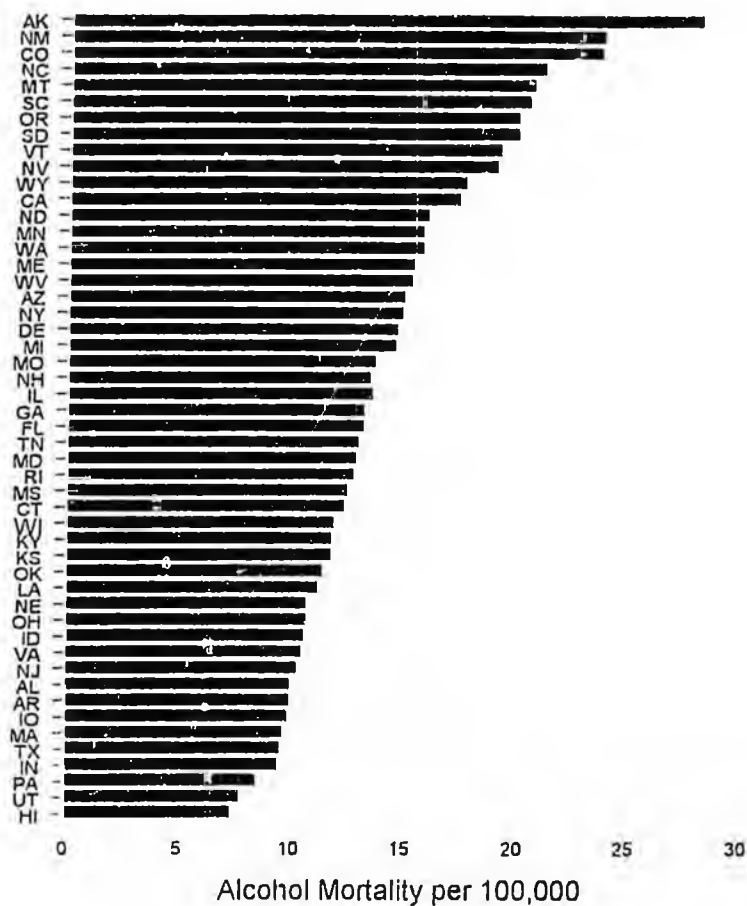
Figure 9. Alcohol Problem Index
1991-93



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

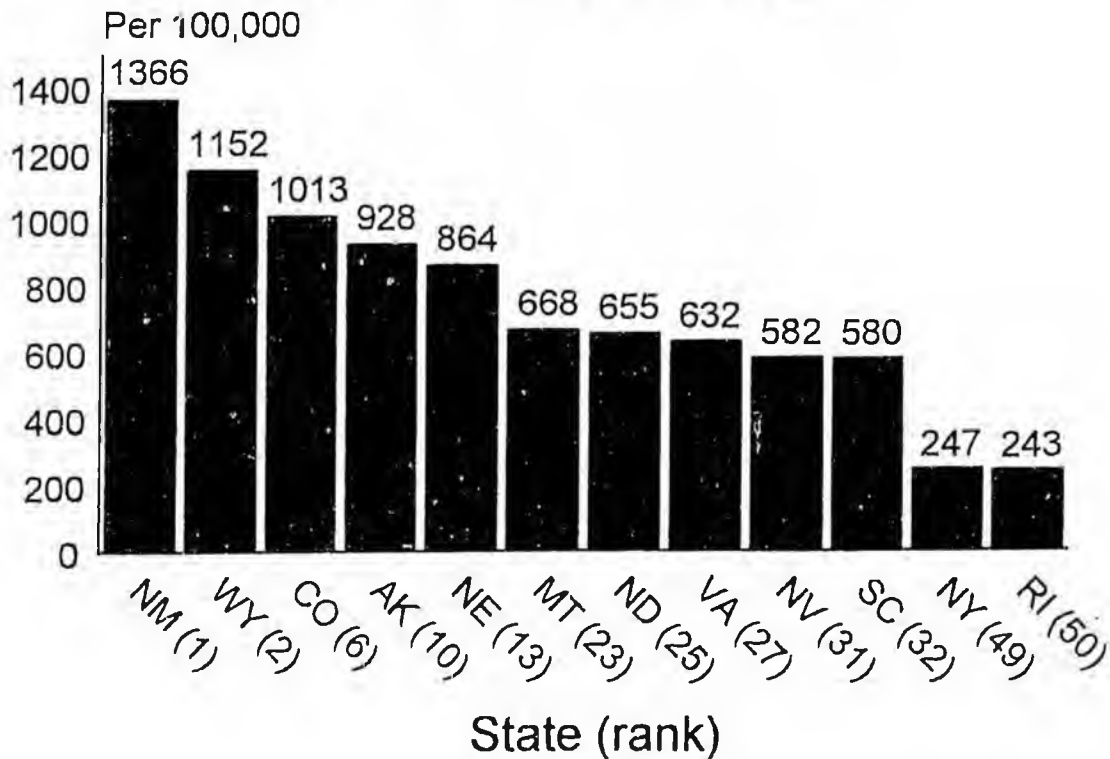


Causes of Death with Explicit Mention of Alcohol. A key component of the API, alcohol mortality has long been used as an indicator of the severity of an area's alcohol problems. Our own research suggests that deaths with explicit mention of alcohol are the best available indicator (see above and McAuliffe 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 1991 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).

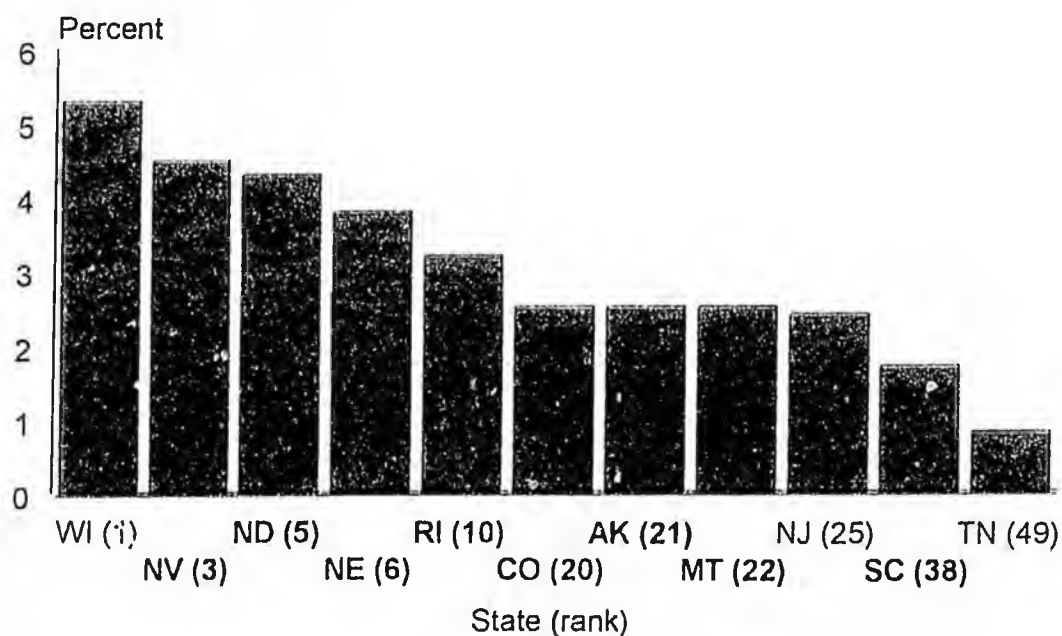
Driving Under the Influence Arrests. For our problem index, we wanted to include a measure of arrests and decided to focus on drunk-driving arrests. Drunk driving is one of the most common causes of arrest in the United States, and a large percentage of drunk drivers have been found to have alcohol use 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



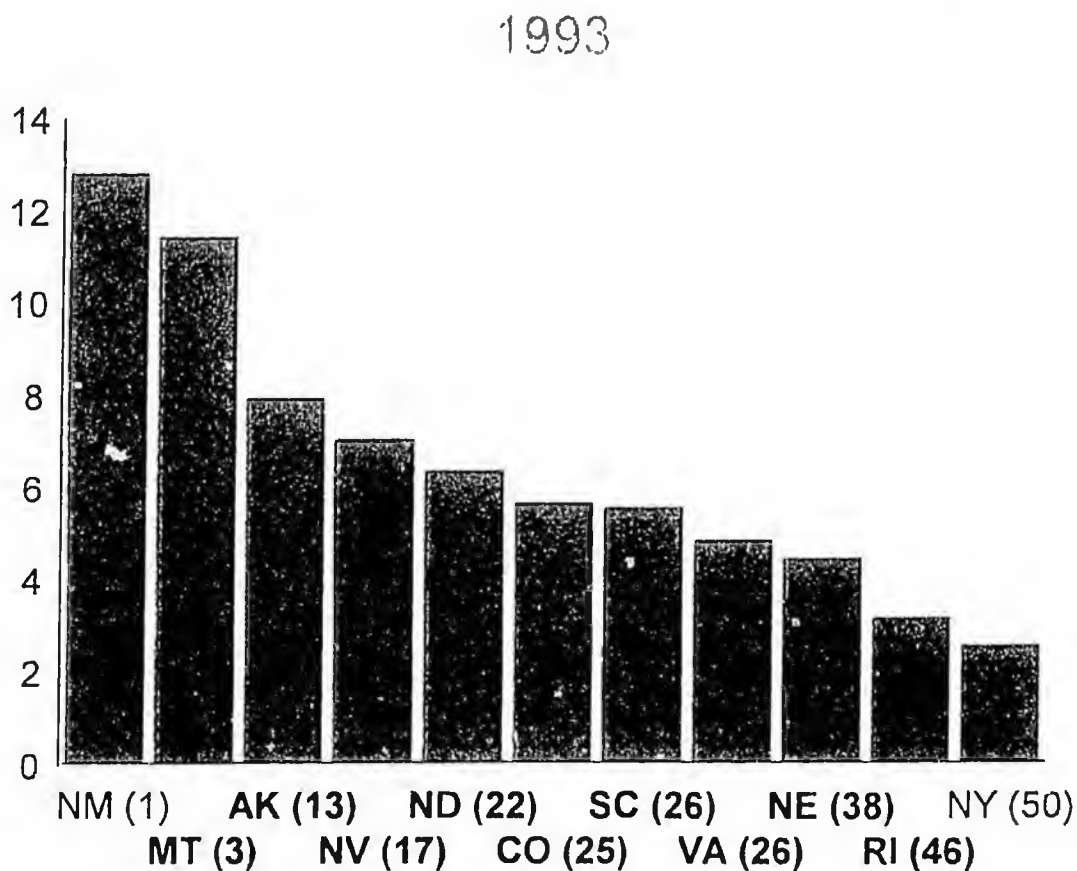
The highest rate of drunk driving arrests was in New Mexico, and the lowest was in Rhode Island. North Dakota, Montana, and Virginia were about average. Colorado, Alaska, and Nebraska had the highest drunk driving rates among the Focus States. Nevada and South Carolina were below average on this statistic. 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.

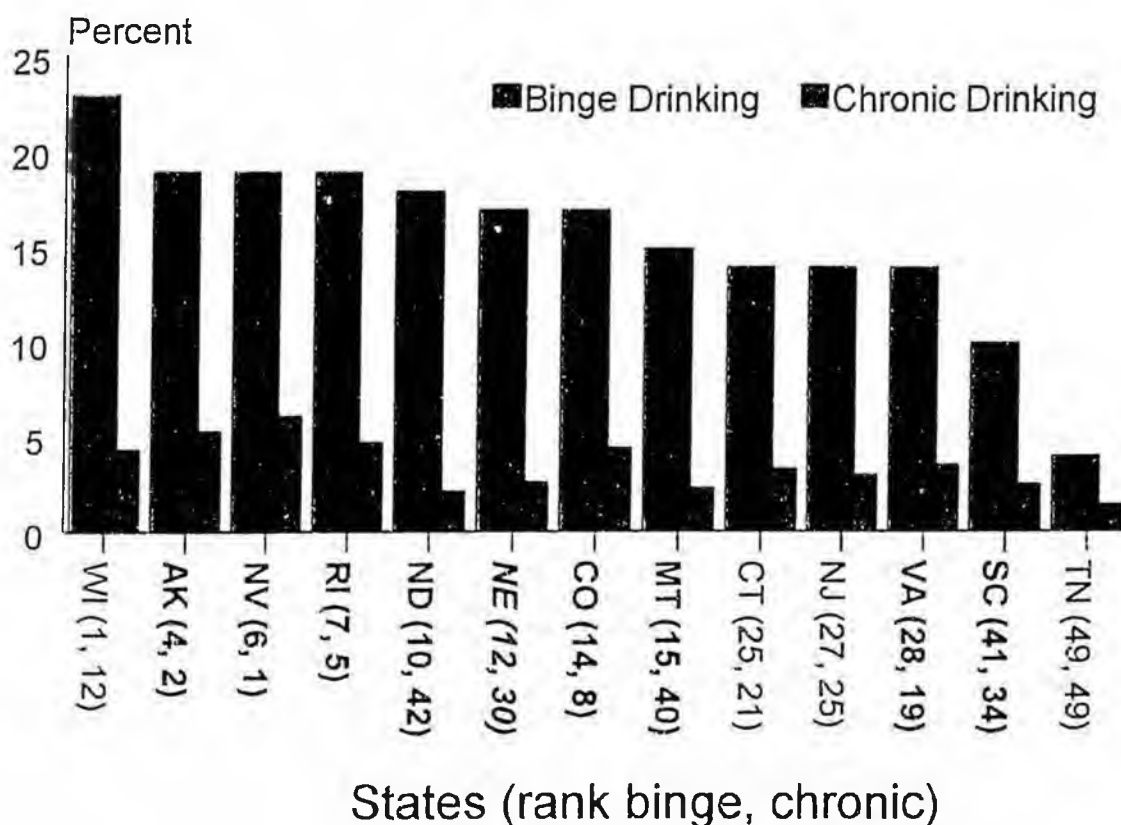
Figure 13. Motor Vehicle Fatalities with BAC > .10



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.

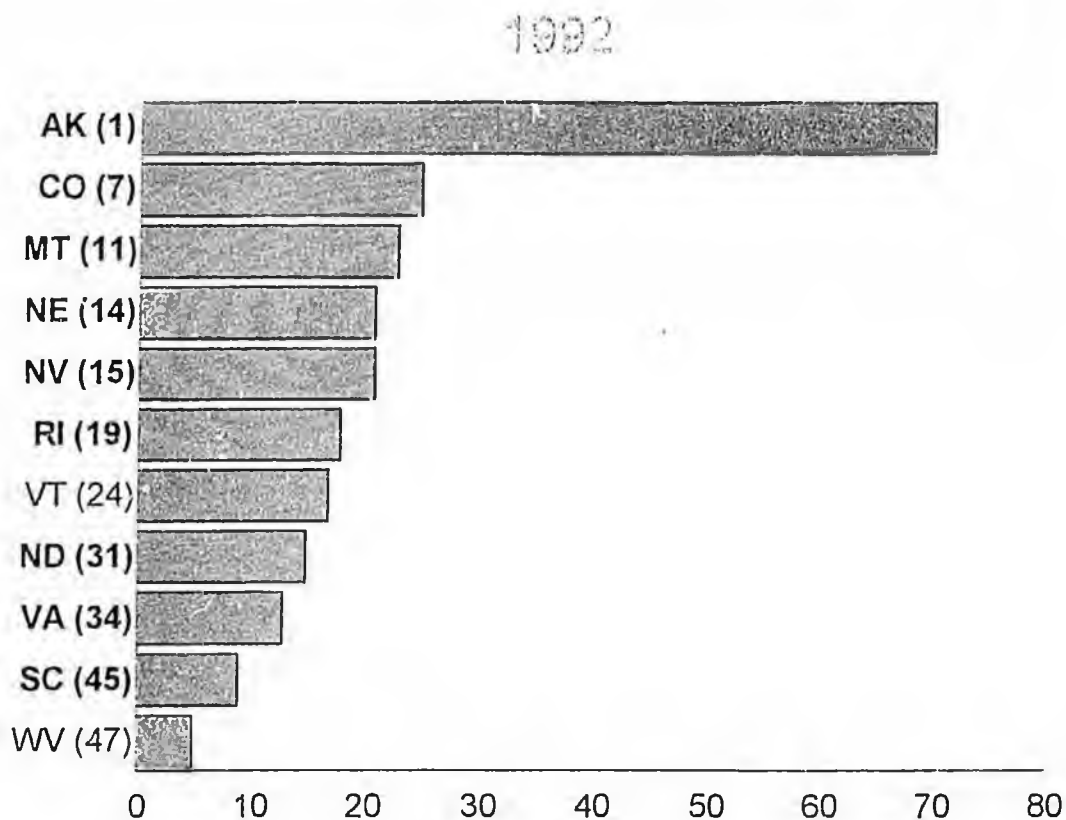
Figure 14. 1993 BRFSS Survey Drinking Estimates



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).

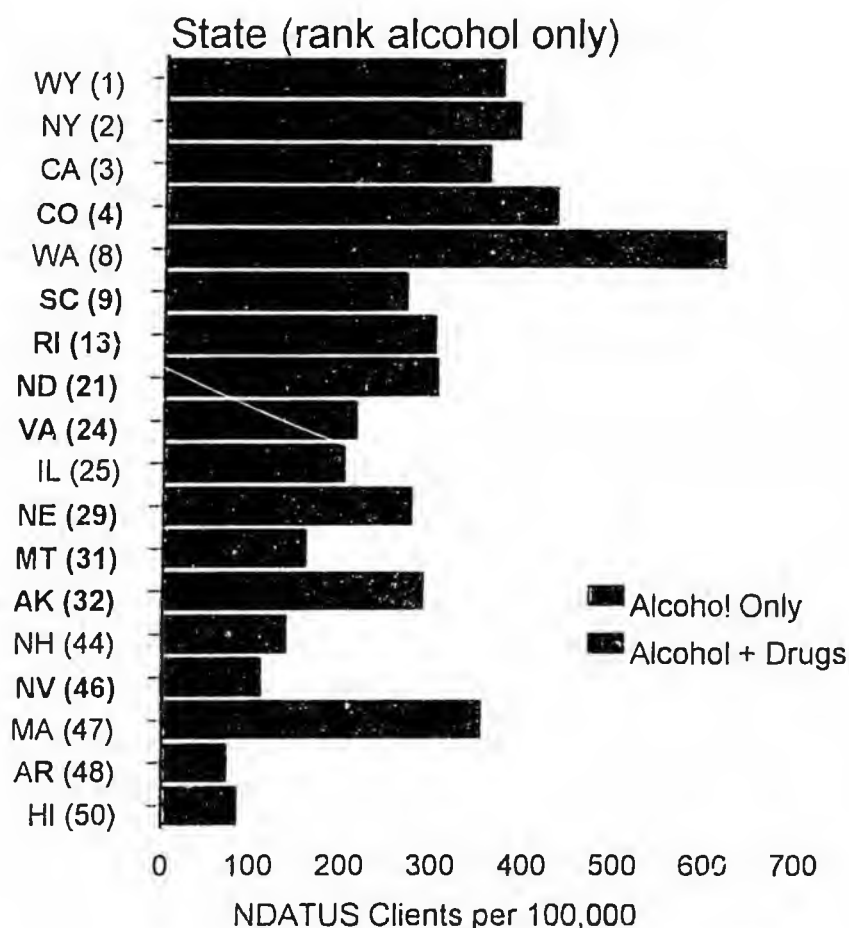
Figure 15. Mothers Who Had 3-4 Drinks per Week



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. Washington 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.

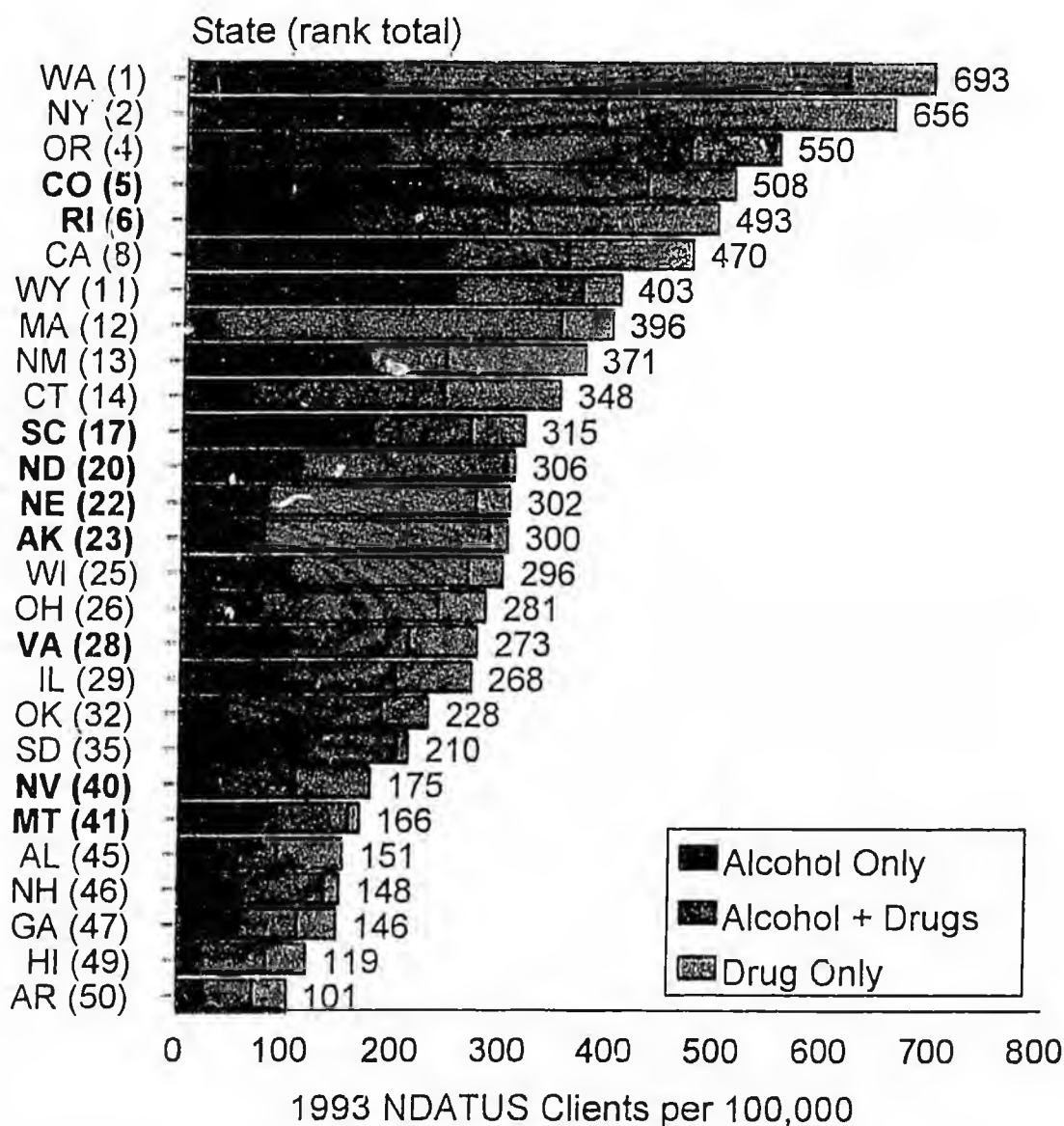
According to our Alcohol Problem Index (API) for 1991 to 1993, the states with the most severe alcohol-related problems (deaths with explicit mention of alcohol, arrests for drunk driving, and alcohol-only treatment clients) were in the West: New Mexico, Colorado, and California. Alaska was also near 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

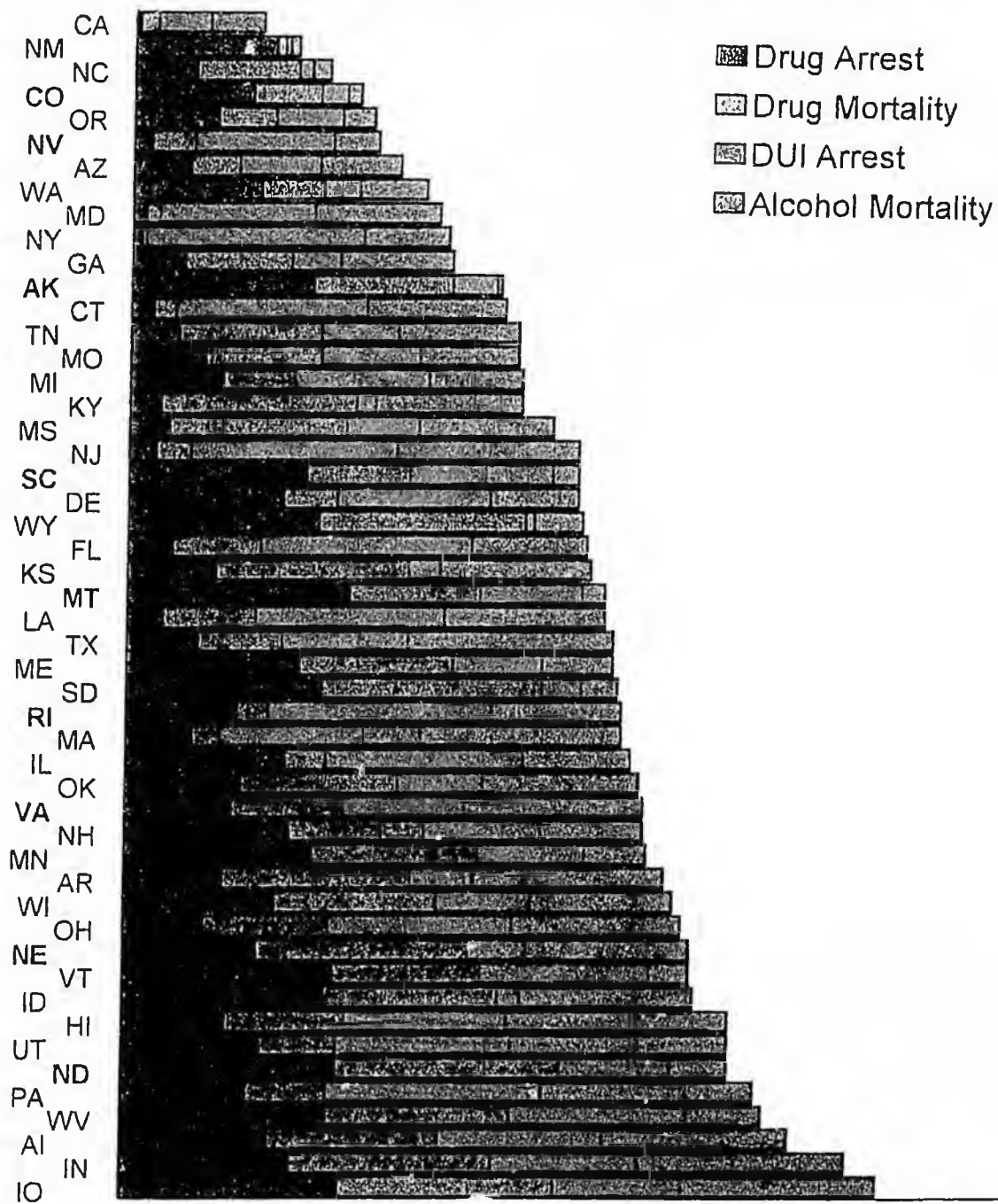


Table 1. Substance Abuse Treatment Need and Utilization of Treatment Services					
Treatment Utilization (1993)	Treatment Need (1991-93)				
	Lowest (V)	Low (IV)	Moderate (III)	High (II)	Highest (I)
Highest (1)			ME, RI, DE	MI	WA, NY, OR, CO, MD, CA
High (2)	ND	MA	WY, FL, KS	CT, NJ, KY, SC	NM
Moderate (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*
<i>Drug Indicators:</i>		
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
<i>Drug Related Diseases:</i>		
Hepatitis B (n=49) (1995)	2.2	32
TB (1995)	13	4
Syphilis (1995)	3	38
<i>Drug-related Crimes:</i>		
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
<i>Alcohol Indicators:</i>		
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
<i>BRFSS</i>		
% 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

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), glutethimide (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 (Butynski 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 to 1993. 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.

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RESULTS WITHIN OUR REACH

**Alaska
State Plan for
Alcohol and
Drug Abuse
Services**

1999-2003

COVER PHOTO

WITH THANKS AND GRATEFUL ACKNOWLEDGEMENT TO
SIAN 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 ANNI SCHULTZ)

State of Alaska
ADVISORY BOARD ON ALCOHOLISM AND DRUG ABUSE
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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.

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18	Strategies and Performance Measures <ol style="list-style-type: none"> 1. Community partnerships 2. Community norms and standards 3. Legal and regulatory initiatives 4. Alcohol and drug free community activities 5. Involuntary commitment when necessary to save a life 6. Useful and effective information distribution 7. Promotion of treatment, recovery and sober lifestyle 8. Training for professionals in the field 9. Training for allied health professionals and other helping agents 10. Life skills training for youth 11. Development of sufficient resources for service delivery 12. Continuum of care for chronic alcoholics with psychosis 13. Relevant research used to ensure best client outcomes 14. Improved interdisciplinary coordination 15. Early intervention and service referral 16. Removal of barriers to treatment 17. Appropriate services for underserved Alaskans 18. Address treatment needs of persons in criminal justice system
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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 than 1,000 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 Indicators¹

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.

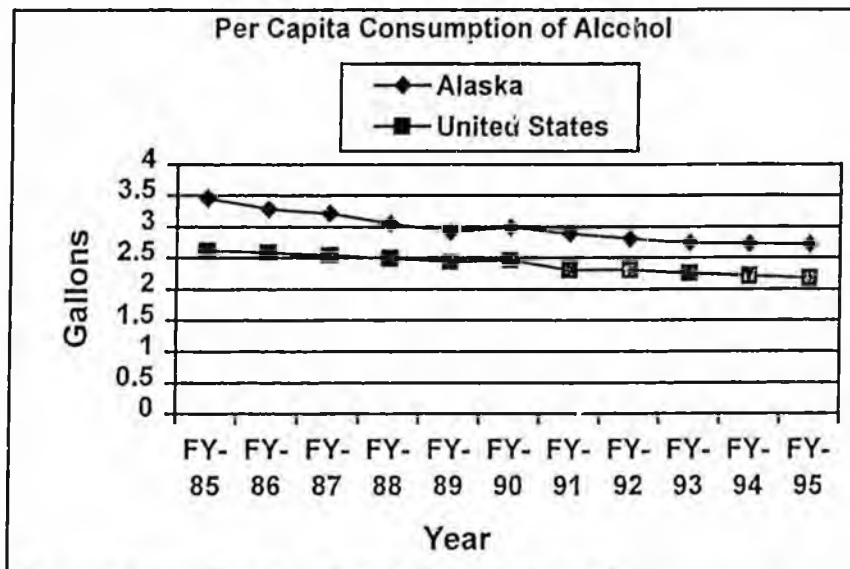


Figure 1 Source: Division of Alcoholism and Drug Abuse

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.

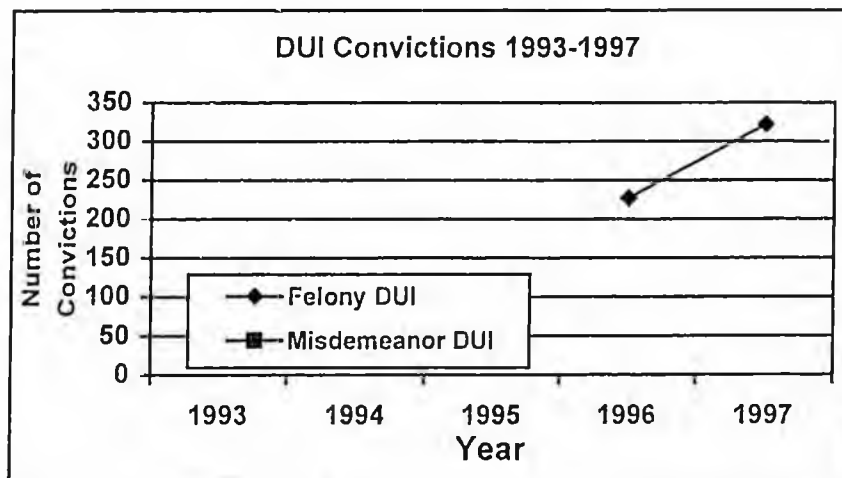


Figure 2 Source: Alaska Court System

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 factor². 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.

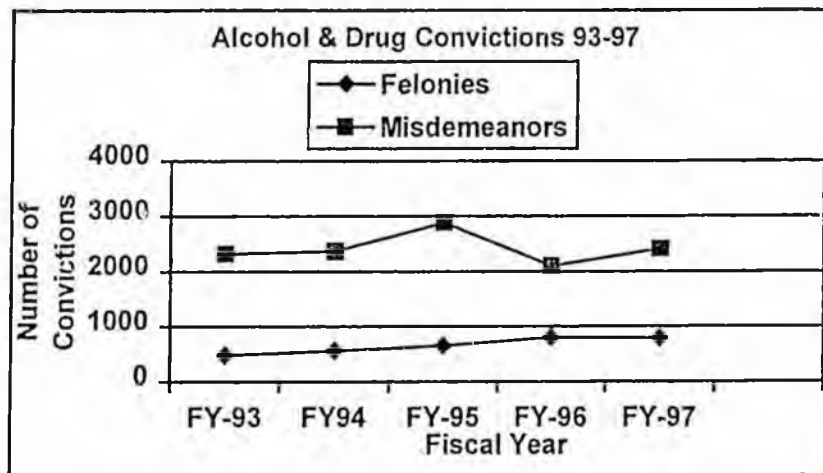


Figure 3 Source: Alaska Court System

The story behind the indicator headline...

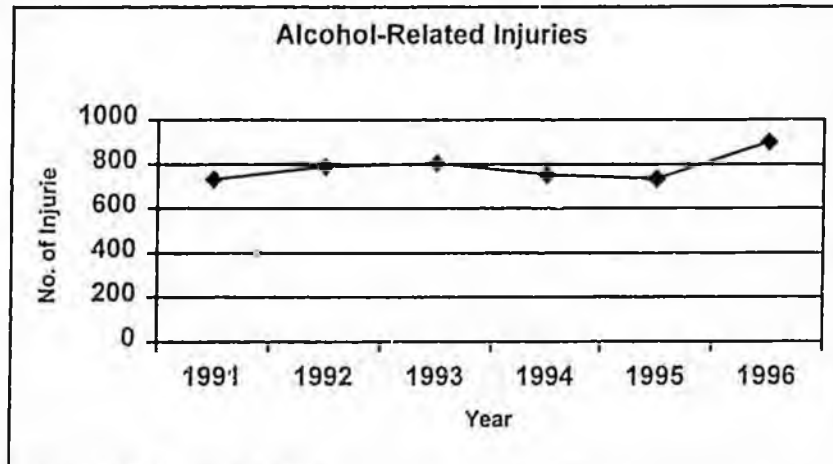
Convictions for drug and alcohol-related offenses, like DUI convictions, offer a clear picture of the negative consequences of use of alcohol and other drugs. Between fiscal years 1993 and 1997, felony convictions increased from 478 to 791. Misdemeanors have varied but show no clear increase or decrease 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" villages³. 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.

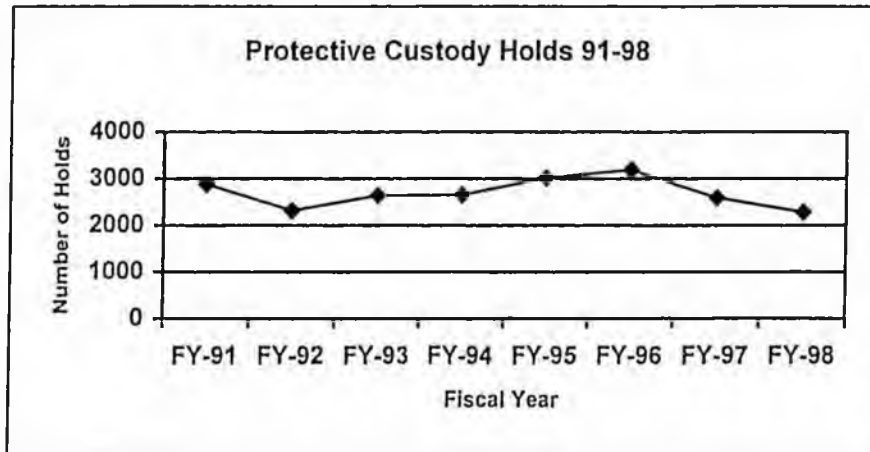


Figure 5 Source: Alaska Department of Corrections

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.

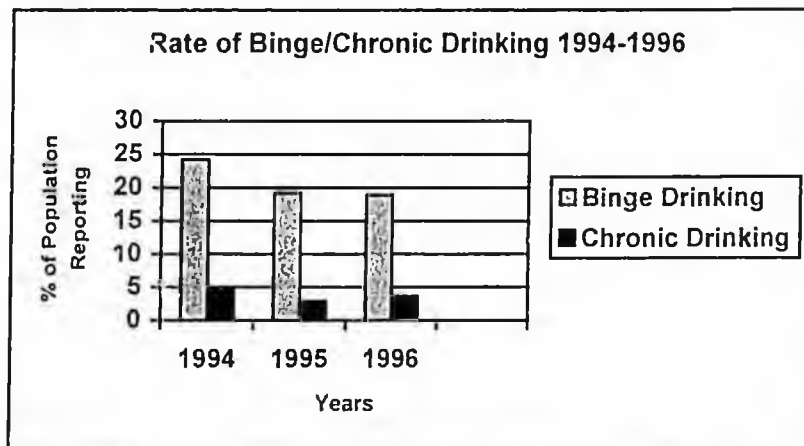


Figure 6 Source: Alaska Behavioral Risk Factor Surveillance System

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?

<u>Performance Measure 1:</u>	Number of agencies and groups participating.
<u>Performance Measure 2:</u>	Extent of participation in effort.
<u>Performance Measure 3:</u>	Number of new initiatives.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of agencies, groups, and individuals involved in proactive partnerships.
<u>Performance Measure 2:</u>	Extent of participation in effort.
<u>Performance Measure 3:</u>	Number of new initiatives and diversity of support.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Quantity of material developed and/or distributed.
<u>Performance Measure 2:</u>	Quality of material for a particular target audience.
<u>Performance Measure 3:</u>	Number of target group members reached.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of self-referrals.
<u>Performance Measure 2:</u>	Increased number of advocacy groups.
<u>Performance Measure 3:</u>	Cost-benefit data.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of alternative activities developed and delivered.
<u>Performance Measure 2:</u>	Percent of target population participating.
<u>Performance Measure 3:</u>	Number of target group involved in planning and implementation.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of initiatives introduced as legislation or local ordinances.
<u>Performance Measure 2:</u>	Variety of responses that indicate support, such as public opinion messages, letters, telephone calls.
<u>Performance Measure 3:</u>	Number of such initiatives passed.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Increase in the number of certified counselors in Alaska.
<u>Performance Measure 2:</u>	Increase in the number of certified counselors working in the field.
<u>Performance Measure 3:</u>	Salaries for chemical dependency professionals that are comparable to others performing comparable work.
<u>Performance Measure 4:</u>	Reduction in rate of staff turnover.
<u>Performance Measure 5:</u>	Increase in staff training opportunities.
<u>Performance Measure 6:</u>	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 consistent, appropriate, and accurate information to target populations, they must first receive the 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?

<u>Performance Measure 1:</u>	Number of target group participating in training.
<u>Performance Measure 2:</u>	Percentage of target group completing training.
<u>Performance Measure 3:</u>	Number of target group showing increased knowledge and awareness.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of target group participating.
<u>Performance Measure 2:</u>	Number of target group completing.
<u>Performance Measure 3:</u>	Number of target group showing positive change or decrease in risk factors/increase in protective factors.
<u>Performance Measure 4:</u>	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?

<u>Performance Measure 1:</u>	Number of at-risk individuals identified.
<u>Performance Measure 2:</u>	Percent of target group contacted.
<u>Performance Measure 3:</u>	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 will lead to earlier intervention and more appropriate treatment plans for clients.

How will we measure our performance?

- | | |
|-------------------------------|--|
| <u>Performance Measure 1:</u> | Increase in number of referrals to and from providers. |
| <u>Performance Measure 2:</u> | Increase in number of referral services to and from providers. |
| <u>Performance Measure 3:</u> | 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?

- | | |
|-------------------------------|--|
| <u>Performance Measure 1:</u> | Increase in treatment capacity and services for chronic alcoholics with psychosis. |
| <u>Performance Measure 2:</u> | Increase in admissions to treatment for chronic alcoholics with psychosis. |
| <u>Performance Measure 3:</u> | Improved treatment retention and outcomes for chronic alcoholics with psychosis. |
| <u>Performance Measure 4:</u> | 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?

- | | |
|-------------------------------|--|
| <u>Performance Measure 1:</u> | Increase in new services developed where needed. |
| <u>Performance Measure 2:</u> | 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?

<u>Performance Measure 1:</u>	Improved access, as reported in client satisfaction surveys.
<u>Performance Measure 2:</u>	Decreased time between first contact and admission to treatment.
<u>Performance Measure 3:</u>	Capacity to ensure that everyone who asks for treatment receives it.
<u>Performance Measure 4:</u>	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?

- | | |
|-------------------------------|--|
| <u>Performance Measure 1:</u> | Increased number of involuntary commitments. |
| <u>Performance Measure 2:</u> | Improved treatment outcomes for those committed involuntarily. |
| <u>Performance Measure 3:</u> | Increased number of communities using involuntary commitment procedure when necessary. |
| <u>Performance Measure 4:</u> | Measurable reduction in inappropriate emergency services for public inebriates. |
| <u>Performance Measure 5:</u> | 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?

<u>Performance Measure 1:</u>	Increased capacity for underserved Alaskans.
<u>Performance Measure 2:</u>	Increased admissions of underserved Alaskans.
<u>Performance Measure 3:</u>	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.

Strategy Eighteen

Address the treatment needs of persons in the criminal justice system.

What this means...

All available data and research indicate that drugs and alcohol are prevailing factors in crime in Alaska. The vast majority of the incarcerated population has drug and/or alcohol problems. In order to decrease recidivism in this population, drug and alcohol treatment needs must be addressed. Drug courts and other diversion strategies identify and provide appropriate services to individuals before they are incarcerated. Depending on the nature of the offense, treatment can be ordered in lieu of incarceration. This approach leads to a more appropriate allocation of scarce corrections resources.

How will we measure our performance?

<u>Performance Measure 1:</u>	Increased percent of offender population with substance abuse problems accessing treatment services.
<u>Performance Measure 2:</u>	Decreased recidivism among alcohol and drug-related criminal offenders.
<u>Performance Measure 3:</u>	Increased number of inmates in treatment programs.
<u>Performance Measure 4:</u>	Increased number of treatment options for offender population.
<u>Performance Measure 5:</u>	Increased percentage of treatment completion and improvement in treatment outcomes
<u>Performance Measure C:</u>	Increased number of drug courts and other diversion programs.

Data Agenda

- I. **Introduction.** Consistent and reliable data are a key element in the planning process. Information about existing conditions helps to develop baselines or reference points. As this plan is implemented, reliable and consistent data will be used to measure performance and results. Careful analysis of indicator and performance measure data will help decision-makers modify strategies to achieve the best results.

- II. **General Data Agenda.** There are a number of issues regarding data collection and analysis that apply to the entire planning process.
 - A. **Timeliness of Data.** Much of the data to be used as indicators is collected and published annually by state agencies. While this makes data collection somewhat straightforward, effectiveness is compromised by the time lag between events and data publication. Most data is typically available two years after the fact. Efforts will be made to obtain the data prior to its normal publication schedule whenever possible. Patience will be required. Data that indicate effectiveness will not be available until at least two years after the implementation of a strategy. For some strategies that seek to impact community norms and values, this time period may be even longer.

 - B. **Data Storage and Maintenance.** Planning is an ongoing process. Data must consistently support this process. There must be an organized, reliable system for data storage and maintenance. The data, if properly maintained, will be useful in the ongoing strategic planning process and in the annual planning processes of the Advisory Board and the Division. The greater the detail of collected data, the more diverse and useful its applications will be.

 - C. **Data Analyses.** The degree of effort required to collect, store, and maintain data will be driven, in large part, by the analyses desired. The use of spreadsheets, databases, or statistical programs to analyze data requires rigorous formatting. The effort is even greater if data from different sources are to be integrated for analyses. During the first year of this plan a data collection, maintenance and analysis plan will be developed to support this effort. This plan will identify data sources and format, integration and analyses desired and appropriate computer software applications.

- III. **Indicator Data Agenda.** Each of the six headline indicators is supported by data that rate high in proxy, data, and communication power. Despite this, each of the indicator data sets has variables that should be acknowledged during the analysis.
- A. **Per Capita Consumption of Alcohol.** The per capita consumption of alcohol data is straightforward. There are some factors, however, which diminish its usefulness.
1. **Age Applicability** – The per capita consumption data are based on total population, 14 years of age and older. They do not account for drinking by youth under age 14.
 2. **Persons Who Abstain from Alcohol** – The data do not take into account those individuals who choose to abstain from alcohol. As this population segment grows, it will lower per capital consumption. It is possible that those who drink alcoholic beverages may be drinking more while the data indicates a decrease in per capita consumption.
 3. **Consumption by Visitors** – The per capita consumption data are based on state population. If visitors significantly impact the amount of alcohol consumed, the per capita consumption data could show an increase when, in fact, there was no increase in consumption by Alaska residents.
 4. **Effects of Wholesale Distribution vs. Consumption** – The per capita consumption data are based on state excise tax collected at the wholesale point in the alcohol distribution chain. While this is considered a good surrogate marker for consumption, there are sales that do not result in Alaska consumption. Some residents purchase Alaska-brewed beer as gifts that are shipped out of state. Although this is probably not significant, we do not know the exact extent of this practice.
- B. **DUI Convictions.** Driving Under the Influence (DUI) conviction data are collected and maintained by the State of Alaska Court System. Felony DUI data are included as a separate conviction category in regularly published reports. Misdemeanor DUI conviction data, however, are included with other misdemeanor traffic violation convictions. In order to obtain these data, a special request must be made to the Court System. An agenda item for the first year of this plan is to ask the Court System to begin separating misdemeanor DUI convictions in their published reports. Another problem with these data is that they do not include arrests that do not result in convictions. Enforcement effort, prosecution workload and strategies, and trends toward plea bargains for other charges also impact these data.

- C. **Drug and Alcohol Related Convictions.** This data set has some of the same limitations present in DUI conviction data. It does not reflect arrests for which there is no conviction, or plea bargains to other charges. An additional complication is that many drug charges are prosecuted in federal court as violations of federal law. Regularly published reports show drug and alcohol convictions at the national level and overall federal convictions at the state level. Specific drug and alcohol conviction data for specific states require a special data run at the federal level. A data agenda item will be to work with the federal court system to encourage reporting of data in a useful format.
- D. **Alcohol Related Injuries.** The State of Alaska Emergency Medical Services Section maintains the Alaska Trauma Registry. The registry collects data relating to injuries that are treated at hospitals throughout the state. There are fields within the registry that identify whether or not alcohol was involved. Although there is not a standard published report, the staff that maintains the registry can produce a custom report that includes desired information. Injuries that are not treated in an emergency room are not included in the registry. The data agenda item relating to this indicator is to determine exactly what information is desired from the registry each year and to work with the Emergency Medical Services staff to obtain that data.
- E. **12-Hour Protective Custody Holds.** Data for 12-hour protective custody holds are collected by the State Department of Corrections. These data reflect the number of Title 47 non-criminal holds in state correctional facilities. At present, community jails, operated by municipalities and boroughs, are not contractually required to record data on 12-hour protective custody holds. The data agenda item for this indicator is to work with the Department of Corrections to develop a standard annual report that includes all Corrections facilities and community jails.
- F. **Rate of Binge/Chronic Drinking.** The percentage of Alaskans reporting binge or chronic drinking is obtained from the annual Behavior Risk Factor Surveillance Survey. It is conducted using a random sample of 1,535 adult Alaskans. The survey results are published annually by the Alaska Division of Public Health. One of the contributing factors to the reliability of this data set is that the survey questions were rigorously developed at the national level. These same questions are also used in a national survey. This indicator can be tracked over time for trend analysis.

- IV. **Performance Measures.** Each strategy selected by the strategic planning work group has a series of measures for evaluating performance. The data for these measures are collected and analyzed by the Division of Alcoholism and Drug Abuse and used to assess the level and quality of effort. Most of the data will be collected from grantees that are required to submit data relevant to their programs. The data from individual grantees will be consolidated to provide an assessment of statewide effort. Most data come from two sources: quarterly reports on goals and objectives and program reports to the Division's Management Information System (MIS). Despite this effort, there are some measures for which data are not now readily available. The data agenda for the Division of Alcoholism and Drug Abuse over the next two years is to examine these specific measures and explore means for obtaining supporting data.
- V. **Other Data Agenda.** Beyond those indicators selected to measure progress toward results and the performance measures for strategies, there are other data and information that would be useful in assessing needs and evaluating program performance. For a variety of reasons those data are not useable at present. This provides yet another set of issues for the data agenda.
- A. **Youth Behavior Risk Survey.** Every two years, the State of Alaska of conducts a survey in the education system to assess attitudes and behaviors that constitute risks to health. While this survey provides useful data, it is not administered in all areas of the state. Participation is determined by local School Boards and is voluntary. The areas not participating are significant enough that the results may not be generalized to the entire state. The data agenda for the next two years is to advocate with the Legislature and the Department of Education to require statewide participation in this valuable survey effort.
- B. **Prevalence Studies.** During 1997 and 1998 the Division of Alcoholism and Drug Abuse participated in a federally-funded comprehensive effort to measure prevalence of alcoholism and alcohol abuse in the general population. This massive, expensive effort involved random sample telephone surveys using rigorously developed survey instruments. The results obtained from this effort have proven extremely valuable in assessing needs and barriers to meeting those needs. Although it is not practical to undertake every year, such a survey conducted at five-year intervals would be very useful in assessing results. The data agenda item for this issue is to advocate at both state and federal levels for consistent periodic surveys of this nature.

- C. **Consumption of Alcohol by Pregnant Women.** The Alaska Division of Public Health, Section of Maternal and Family Health, conducts an annual survey of women who give birth during the year. This survey uses an instrument developed by the U. S. Centers for Disease Control. The survey is conducted by mail using a stratified random sample methodology. The response rate for this survey has traditionally been extremely high, which makes it a valuable tool. Among the questions in the survey are a series on alcohol use during pregnancy. Given the significant negative consequences associated with drinking during pregnancy (Fetal Alcohol Syndrome and Fetal Alcohol Effect), the trends in this area would be most useful in assessing prevention efforts. Although routine reports are not published, the staff responsible for this effort is able to produce custom reports. The data agenda item for this issue is to work with the Section of Epidemiology to identify key information from the survey that can be provided annually.
- D. **Alcohol-Related Deaths.** Consistent data on alcohol-related deaths is not readily available. This is primarily because of the many ways in which alcohol and other drugs can cause death. The cause of death usually associated with alcohol consumption is cirrhosis of the liver. However, there are other fatal medical conditions related to alcohol consumption such as heart disease and esophageal cancer. Many accidents and homicides are also associated with alcohol abuse. This is compounded by the fact that these causes of death are associated with other factors as well as alcohol consumption. The same difficulties are present with consumption of other drugs. The State of Alaska Bureau of Vital Statistics reports on causes of death annually. In 1996, for example, the Bureau of Vital Statistics reported a total of 110 deaths due to alcohol use or abuse⁴. The Bureau also reports separately for deaths due to cirrhosis and other diseases. The data agenda item for this issue is to work with the Bureau of Vital Statistics over the next five years to develop a useable method of identifying death due to alcohol or other drug consumption.
- E. **Department of Health and Social Services Data Warehouse.** The Alaska Department of Health and Social Services is currently working on a project to provide easier access to data across Divisions. The Advisory Board on Alcoholism and Drug Abuse will monitor these efforts and assist as appropriate in developing a system that will meet the data needs of the State and providers as well as protecting the privacy and confidentiality of consumers.

⁴ Alaska Bureau of Vital Statistics, 1996 Annual Report, 1998

Implementation

This strategic plan will succeed to the extent that it is consistently implemented and updated. Four distinct implementation efforts are required in order for the plan to remain a useful tool over time.

- 1. Implementation of Strategies.** The prevention and treatment strategies identified in this plan will be implemented by the Division of Alcoholism and Drug Abuse, which has responsibility for managing service delivery in Alaska. The Advisory Board on Alcoholism and Drug Abuse and the Division will share responsibility for implementation of strategies that address public policy, advocacy and legal/legislative initiatives. The implementation of service delivery strategies will be accomplished primarily through the Request for Proposals (RFP) process. This process leads to funding allocation to support specific strategies. Successful grantees will develop proposals that reflect the Division's guidelines and this plan. Future Requests For Proposals (RFPs) from the Division will incorporate experience and knowledge gained by monitoring indicators and performance measures as well as emerging research. Both the Division and the Advisory Board will share responsibility for wide distribution of the plan. Each will work assertively to educate providers, stakeholders, and the public about the plan's contents and significance in reducing negative consequences of alcoholism and drug abuse for all Alaskans.
- 2. Monitoring of Performance.** As strategies are implemented, the Division will monitor performance measures to assess the level, quality, and effectiveness of effort. The data required for monitoring performance will be reported by programs and collected independently by the Division. By monitoring performance in a timely manner, the Division and the Advisory Board will be able to gauge whether the selected strategies are the right ones and whether the level of effort is sufficient to impact the indicators as desired.
- 3. Monitoring of Indicators.** Each year, the Advisory Board will collect the required indicator data to determine the extent to which the strategies have influenced the desired results. There are several confounding factors in this task. First, indicator data are impacted by variables beyond the control of the Division or the Advisory Board. Care must be exercised when deciding how much the data have been impacted by the strategies and how many intervening variables have impacted them. Second, the data reflected in the indicators are often one to two years old before publication. There could be a lag of three or four years after the implementation of a strategy before indicator data are available from which to draw conclusions. Once the data

are available, it will be necessary to view several years of data before assessing effectiveness.

4. **Ongoing Planning.** Only one desired result was examined during this planning phase. The planning work group identified four other desired results for all Alaskans. The ongoing planning effort will follow two parallel tracks. The first track focuses on review of the performance measure and indicator data and refinement of the strategies as necessary. The second track focuses on developing indicator data, strategies and performance measures for the other results. It is recommended that the planning work group convene every third year to update the plan, building on the ongoing efforts indicated above.
5. **Integration into the Comprehensive Integrated Mental Health Plan.** The Advisory Board will work with the Department of Health and Social Services, the Mental Health Trust Authority, and the three other beneficiary boards to ensure a smooth integration of this plan into the Comprehensive Integrated Mental Health Plan.

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Glossary

Abuse of alcohol, other drugs, or inhalants: A persistent pattern of use of alcohol, other drugs or inhalants with which health consequences and/or impairment in social functioning are associated. This is different from dependence, which has such manifestations as craving, tolerance and physical dependence. Abuse is any use of a legal or illegal drug or substance that causes physical, mental, emotional or social harm, whether mild or severe.

Accountability: Responsibility for performance and results; holding political leaders and agency managers accountable for results according to agreed upon performance standards.

Addict: A person who is physically dependent on one or more psychoactive substances, whose chronic use has produced tolerance, who cannot control his or her intake, and who would have withdrawal symptoms if drug use were discontinued.

Alaska Mental Health Trust Authority (AMHTA): The Alaska Mental Health Trust Authority administers the Mental Health Trust established in perpetuity. It has a fiduciary responsibility to its beneficiaries to enhance and protect the Trust and to provide leadership in advocacy, planning, implementing, and funding of a comprehensive integrated mental health program to improve the lives and circumstances of its beneficiaries.

Alcohol: The active ingredient in beer, wine and distilled spirits; ethyl alcohol or ethanol.

Alcohol Dependence: A psychic and usually physical state resulting from taking alcohol. It is characterized by behavioral and other responses that always include compulsion to take alcohol on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. The person may or may not have developed a tolerance for alcohol. A person may be dependent on alcohol and other drugs. "Alcohol dependence" is often used interchangeably with the term "alcoholism."

Alcoholism: A primary, chronic disease with genetic, psychosocial and environmental factors influencing its development and manifestations. The disease is often progressive and fatal. It is characterized by continuous or periodic impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking, most notably denial. Each of these symptoms may be continuous or periodic.

- **Primary** refers to the nature of alcoholism as a disease entity, in addition to, and separate from other pathophysiologic states which may be associated with it. It suggests that alcoholism, as an addiction, is not a symptom of an underlying disease state.
- **Disease** means an involuntary disability. It represents the sum of the abnormal phenomena displayed by a group of individuals. These phenomena are associated with a specific common set of characteristics by which these individuals differ from the norm, and which places them at a disadvantage. Use of the term involuntary in defining disease is descriptive of this state as a discrete entity that is not deliberately pursued. It does not suggest passivity in the recovery process nor does use of the term imply the abrogation of responsibility in the legal sense.
- **Often progressive and fatal** means that the disease persists over time with physical, emotional, and social changes that are often cumulative and may progress as drinking continues. Alcoholism causes premature death through overdose, organic complications involving the brain, liver, heart and many other organs, and by contributing to suicide, homicide, motor vehicle crashes and other traumatic events.
- **Impaired control** means the inability to limit alcohol use or to consistently limit, on drinking occasions, the duration of the drinking episode, the quantity of alcohol consumed, and/or the behavioral consequences.
- **Preoccupation** used in association with alcohol use indicates excessive, focused attention given to the drug alcohol, its effects, and/or its use. The relative value thus assigned by the individual often leads to a diversion of energies away from important life concerns.
- **Adverse consequences** are alcohol-related problems or impairments in such areas as physical health (e.g., alcohol withdrawal syndromes, liver disease, gastritis, anemia, and neurological disorders,) psychologic functioning (e.g., impairments in cognition, changes in mood and behavior,) interpersonal functioning (e.g., marital problems, child abuse, troubled social relationships,) occupational functioning (e.g., scholastic or job problems,) and legal, financial or spiritual problems.
- **Denial** is used here not in the psychoanalytic sense of a single psychological defense mechanism disavowing the significance of events, but more broadly to include a range of psychological maneuvers that decrease awareness of the fact that alcohol use is the cause of a person's problems rather than a solution to those problems. Denial becomes an integral part of the disease and is nearly always a major obstacle to recovery.

ASAM: The American Society of Addiction Medicine, a national medical specialty society of physicians dedicated to improving the treatment of alcoholism and other drug dependencies.

ASAM Placement Criteria: American Society of Addiction Medicine Patient Placement Criteria for the Treatment of Psychoactive Substance Use Disorders, a clinical guide for matching patients diagnosed as having a substance use disorder to appropriate levels of care based on an assessment of:

1. acute intoxication and/or withdrawal potential;
2. biomedical conditions and complications;
3. emotional/behavioral conditions and complications;
4. treatment acceptance/resistance;
5. relapse potential;
6. recovery environment.

Beneficiary (AMHTA): The beneficiaries of the Alaska Mental Health Trust Authority are Alaskans who experience mental illness; mental retardation or similar disabilities; chronic alcoholism with psychosis and/or Alzheimer's disease or related dementia.

Binge Drinking: Having five or more drinks on an occasion one or more times in the past month.

Chemical Dependency: Physiological or physical dependence on a psychoactive substance.

Chronic Alcoholic with Psychosis: As defined in AS 47.30.056(b)(3), this group includes persons with the following disorders:

1. alcohol withdrawal delirium (delirium tremens);
2. alcohol hallucinosis;
3. alcohol amnesiac disorder;
4. dementia associated with alcoholism;
5. alcohol-induced organic mental disorder;
6. alcoholic depressive disorder;
7. other severe and persistent disorders associated with a history of prolonged or excessive drinking or episodes of drinking out of control and manifested by behavioral changes and symptoms similar to those manifested by persons with disorders listed in this subsection.

Chronic Drinking: An average of 60 or more drinks a month.

Culturally Sensitive: Awareness of unique aspects and nuances of one's own culture and of other cultures.

Detoxification: Treatment to restore physiologic function after it has been seriously disturbed by the overuse of alcohol or other drugs.

Drug Dependence: A psychic and sometimes physical state resulting from taking a drug. It is characterized by behavioral and other responses. These always include a compulsion to take a drug on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. The person may or may not have developed a tolerance for the drug. A person may be dependent on more than one drug.

Dually-Diagnosed: Persons suffering from co-existing mental illness and alcohol or drug dependence.

Early Intervention: Services designed to identify individuals who are at high risk for developing alcohol or other drug-related problems. These services are also directed toward persons who are experiencing adverse effects of alcohol or other drug use but are not dependent. Services seek to modify alcohol or drug use behaviors and attitudes.

Fetal Alcohol Syndrome (FAS): Fetal Alcohol Syndrome and other alcohol-related birth defects refer to a group of physical and mental birth defects resulting from a woman's alcohol consumption during pregnancy. FAS is the leading known cause of mental retardation and is 100 percent preventable.

Fetal Alcohol Effect (FAE): FAE is similar to FAS but lacks the physical symptoms of FAS. FAE neurological abnormalities, development delays, intellectual impairments and learning/behavior disabilities are similar to, and sometimes more severe than, those of FAS.

Guiding Principles: These define what the organization stands for and are used as the foundation on which to develop a strategic plan of action.

Inhalants: Any volatile substance that can produce an intoxicating state when inhaled. A volatile substance becomes a gas at normal room temperature. Examples include common household products such as fast-drying glues and cements; paints, lacquers and varnishes; thinner and removers; lighter and dry cleaning fluids; kerosene, gasoline, lantern and stove fuel; fingernail, shoe and furniture polish; typewriter correction fluids; felt-tip pens; aerosol products; refrigerants such as freon.

Involuntary Commitment: A legal process defined in Alaska law (AS 47.37.190) whereby a person addicted to alcohol may be committed to a treatment facility without the person's permission if the person lacks self control in using alcohol and presents a danger to others or is incapacitated by alcohol.

Indicator or Benchmark: A measure, for which data is available, that helps to quantify the achievement of a desired result or outcome.

Mission Statement: This states the purposes served by an organization's mission. By defining its mission, an organization can decide upon appropriate outcomes and performance measures.

Misuse of alcohol, drugs or inhalants: Use of alcohol, other drugs, or inhalants in a way that is illegal or deviates from medically accepted use.

Performance Measure: A measure of effectiveness of agency or program service delivery.

Results-oriented Government: A government that values results and qualitative outcomes over expenditures and inputs. It is concerned with accountability and performance measurement.

Result or Outcome: A condition of well-being for children, families or communities.

Sobriety: A positive, healthy and productive way of life, free from the negative effects of alcohol or other drug misuse or abuse.

Strategic Planning: A process of defining the vision, mission, goals and objectives of an organization. Through the planning process the organization identifies the results it seeks to achieve through its programs and the specific means by which it intends to achieve these results.

Tolerance: Physiologic adaptation to the effect of a drug, diminishing the effect of constant dosages.

Treatment Capacity: The amount of substance abuse services that are readily accessible.

Vision: The ideal mission of a governmental jurisdiction and/or agency, and the ideal way it must operate to accomplish its mission and best serve its clients.

Selected Resources and References

The following are only a few the very broad range of references and resources available to those with an interest in eliminating the negative consequences of alcohol and drug abuse.

Advisory Board on Alcoholism and Drug Abuse. Annual reports of the Advisory Board's activities, and selected reports on programs and projects, as well as additional copies of this plan. (907) 465-8920 or 1-888-464-8920.

Alaska State Library bibliography on Alcohol and Drug Abuse Treatment. Call 907 465-2916 to request a free copy. Also available from <http://www.educ.state.ak.us/lam/library.html>.

Alcoholics Anonymous. <http://www.alcoholics-anonymous.org/>

Center for Science in the Public Interest "Booze News" <http://www.cspinet.org>

Center for Substance Abuse Prevention maintains a Clearinghouse on Alcohol and Drug Information at 1-800-729-6686. Its website may be reached at <http://www.health.org>.

Division on Alcoholism and Drug Abuse. In the coming months, the final reports of federally-funded research projects relating to prevalence in Alaska will become available. (907) 465-2071 or 1-800-478-2072.

Dual Diagnosis Website, focuses on mental illness, drug addiction and alcoholism. <http://www.erols.com/kscia/ca/>

Higher Education Center for Alcohol and other Drug Prevention, sponsored by the U. S. Department of Education. <http://www.edc.org/hec/>

Join Together Online Organizations working together to combat substance abuse and violence. <http://www.jointogether.org/>

National Institute on Alcohol Abuse and Alcoholism. Offers a wealth of information, publications and databases on both treatment and prevention. <http://silk.nih.gov/naaa1/>

The National Library of Medicine, PubMed. A very large range of medical topics, including Clinical Alerts of the National Institutes of Health, a journal database browser and links to many other sources. <http://www.ncbi.nlm.nih.gov/pubmed/>

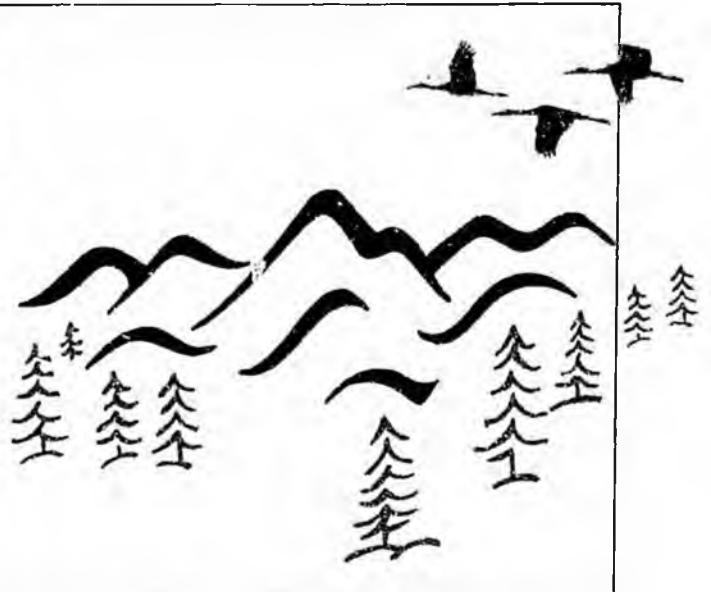
National Organization for Fetal Alcohol Syndrome. <http://www.nofas.org/>

Printed in Juneau, Alaska
at a cost of \$1.81 per copy.

Additional copies are available upon request.
Please call 907 465-8920 or 1-888-464-8920.

Fetal Alcohol Syndrome

Alaska's #1
*Preventable
Birth Defect*



1999 Status Update

Alaska's response to Fetal Alcohol Syndrome

Alaska Department of Health and Social Services

P.O. Box 110601

Juneau, AK 99811-0601

Karen Perdue, Commissioner

L. Diarie Worley, Statewide FAS Coordinator



'When spider webs unite, they can tie up a lion.'

-African proverb

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Gov. Tony Knowles proclaimed Sept. 9, 1999, as Fetal Alcohol Syndrome Awareness Day in Alaska:

"To promote awareness of the effects of prenatal exposure to alcohol, to increase compassion for those individuals so affected, to minimize further effects and to ensure healthier communities across Alaska."

Statewide FAS Coordinator

L. Diane Worley

800-478-2072; 907-465-3033

What is Fetal Alcohol Syndrome?

Fetal Alcohol Syndrome (FAS) and other alcohol-related birth defects refer to a group of physical and mental birth defects resulting from a woman's drinking alcohol during pregnancy.

"FAS is a permanent birth defect syndrome caused by maternal consumption of alcohol during pregnancy. The definition of the fetal alcohol syndrome has changed little since the 1970s when the condition was first described and refined. The condition has been broadly characterized by pre-and /or postnatal growth deficiency, a characteristic set of minor facial anomalies, and evidence of prenatal alteration in brain function such as microcephaly from birth, neurologic problems without postnatal antecedents, or complex patterns of functional disability."

*Dr. Sterling Clarren and Dr. Susan Astley
University of Washington FAS Diagnostic and Prevention Network*

Drinking during pregnancy causes not only FAS, but a wide range of harmful effects to children. These effects can range from a characteristic pattern of physical features and mental impairment to more subtle cognitive and behavioral dysfunction. Other terms often used to define

individuals with prenatal exposure to alcohol that do not meet the medical diagnosis of FAS include fetal alcohol effects (FAE), static encephalopathy, alcohol-related neurodevelopmental disorders (ARND), alcohol-related birth defects (ARBD), and fetal alcohol-related conditions (FARC). While it is often assumed that FAE and these other alcohol-related conditions are less severe than FAS, this is not always the case. The neurological abnormalities, delays in development, intellectual impairments and learning/behavior disabilities that accompany FAE are similar, and sometimes more severe, than with FAS.



Rachel, age 9 and diagnosed with FAS, proudly displays the snails she collected from the stream at Chena Hot Springs Resort during the annual FAS/FAE Family Summer Camp.

Alcohol-related birth defects can occur only when a woman consumes alcohol during pregnancy. It is 100% preventable. Since there is no known safe amount of alcohol consumption during pregnancy, the American Academy of Pediatrics recommends abstinence from alcohol for women who are pregnant or who are planning pregnancy.

Alaska's FAS Agenda

Alaska has the highest documented rate of fetal alcohol syndrome in the nation. Because prenatal exposure to alcohol affects a wide range of social, educational and health services across the state, and because the estimated life-time cost for services to an individual with FAS is \$1.4 million, the state of Alaska is committed to a statewide agenda focused on FAS prevention, intervention and support.

FAS and other alcohol-related birth defects cause permanent, life-long disabilities that require a range of services and supports for the individual and their families.

Research shows that early screening, diagnosis and individualized services reduce the likelihood that affected individuals will develop secondary disabilities associated with FAS and FAE, including mental health problems, problems with employment, school difficulty, involvement with the criminal justice system/incarceration, substance abuse problems and inappropriate sexual behavior.

Because FAS is preventable, one of our top priorities must be primary and secondary prevention programming. Increased efforts to improve service delivery and support to women at-risk for giving birth to an alcohol-affected child are essential to reducing and eventually eliminating this devastating birth defect.

In an effort to address these issues, the state of Alaska has developed a comprehensive, multidisciplinary approach to FAS prevention and intervention with projects, state initiatives and community partnerships across the state.



Scottie and Will, both age 7 and both diagnosed with FAS, enjoy a swim at the FAS/FAE Family Summer Camp in August.

Because FAS is preventable, one of our top priorities must be primary and secondary prevention.

How can we develop an appropriate approach to preventing and treating FAS if we don't know the full extent of the problem?

The Alaska FAS Surveillance Project

The Alaska Fetal Alcohol Syndrome Surveillance Project (AFASSP) is a collaborative effort between the state's Section of Maternal, Child and Family Health and the federal Centers for Disease Control and Prevention (CDC). Through this collaborative effort, Alaska is one of five sites in the United States participating in a 5-year population-based FAS surveillance project funded by the CDC. The other sites are Colorado, Arizona, Wisconsin and New York.

Together, the five sites and the CDC have formed the National FAS Surveillance Network (FASSNet). It is the network's goal to:

- ◆ Determine the number of children with FAS in each state
- ◆ Improve documentation in medical records to increase the potential of finding cases
- ◆ Evaluate the system used to collect the data
- ◆ Provide information to health care providers
- ◆ Serve as a clearinghouse for scientific data related to FAS

In order to address a situation, you need to know what you are dealing with. Currently, we do not have adequate and timely data regarding the rate of FAS births in our state. How can we develop an appropriate approach to preventing and treating FAS if we don't know the full extent of the problem?

Obtaining specific data on FAS is a complex process with many challenges that must be addressed. For example, at this time:

- ◆ The method of diagnosing the syndrome is not standardized
- ◆ The diagnosis code (ICD-9) for reporting the syndrome is not specific to FAS
- ◆ Characteristics associated with the syndrome vary from child to child
- ◆ Characteristics of the syndrome may change as the child gets older
- ◆ Documentation in the medical record may be incomplete
- ◆ Availability of medical providers to evaluate and report children is limited
- ◆ Reviewing records statewide requires many resources (travel, personnel, etc.)

The state FAS Surveillance Project has just entered its third year of a five-year project. A summary of preliminary data is included in this publication.

Alaska Birth Defects Registry

Because birth defects are the leading causes of infant mortality and morbidity in the United States, the *Alaska Birth Defects Registry* (ABDR) was created in 1996 as a tool for tracking and analyzing data to assist in making improvements in our state's public health programs. The registry is a passive surveillance system. Hospitals, physicians, early intervention programs, pediatric clinics and other health care providers serving children from birth through age six are required to report contacts involving the diagnosis of a congenital anomaly.

The specific purposes of the Alaska Birth Defects Registry are to:

- ◆ Perform epidemiological surveillance-monitoring to learn more about the occurrence of birth defects in Alaska
- ◆ Prevent secondary disabilities by making recommendations concerning special services needed in local communities
- ◆ Provide an accurate, unduplicated count of children with birth defects to other programs and agencies
- ◆ Provide statistics to other researchers studying the causes/risks of birth defects
- ◆ Identify potential areas of unmet need

To be included in the registry, a child must have been born to a woman who was a resident of Alaska at the time of the child's birth, and be diagnosed as having one of the eligible conditions. Guidelines for reporting are available in the booklet, "Conditions Reportable to Public Health," available through the Division of Public Health.

Currently, 22 out of 24 Alaska hospitals are reporting, representing approximately 92% of 1997 births. In addition, there are seven physician/health clinics reporting, which represents approximately 65 physicians statewide. All information collected is kept confidential. Employees involved in the registry are subject to Alaska Administrative Code 27.890: "Confidentiality of Required Reports and Medical Records." Identity of individuals is not used in any report or publication. The *Alaska Birth Defects Registry* is a program of the Section of Maternal, Child and Family Health within the Division of Public Health.

"FAS is a reportable condition in Alaska. Reportable birth defects associated with maternal alcohol consumption or other noxious substances include: Fetal Alcohol Syndrome, Alcohol-related Neurological Deficits, Fetal Alcohol Effects, Possible/Suspected Fetal Alcohol Effects, microcephaly, and any other conditions which may have been caused by alcohol or drug use during pregnancy. This means that hospitals, physicians, surgeons, and other health care facilities or practitioners diagnosing or providing treatment to a patient less than six years old affected by maternal consumption of alcohol or other noxious substances are legally required to report information about the patient to the Alaska Department of Public Health."

7 Alaska Administrative Code (AAC) 27.012

'Once an individual is diagnosed with FAS/FAE, family members and social services workers can customize developmental approaches and goals to ensure that the individual reaches his or her personal potential. Diagnosis provides visibility, and visibility prompts solutions.'

Dr. Ann Streissguth
University of Washington
Fetal Alcohol & Drug Unit



Ardyce Turner is one of six team members from the Yukon Kuskokwim Fetal Alcohol Syndrome Multidisciplinary Community Team. Ardyce and 17 other Alaskans traveled to Seattle to attend a 3-day training at the University of Washington FAS Diagnostic and Prevention Network. Ardyce is the FAS Coordinator for the Yukon Kuskokwim Health Corporation in Bethel.

Multidisciplinary Community Team Network

In a 1996 study, Dr. Ann Streissguth, University of Washington Fetal Alcohol and Drug Unit, found that being diagnosed with an alcohol-related birth defect before the age of six years was a key 'protective factor' helping to minimize secondary disabilities and improving long-term outcomes. One of Alaska's major challenges has been to improve and increase the state's capacity to identify, screen and diagnose fetal alcohol syndrome and other alcohol-related birth defects. The lack of diagnostic services has also hampered our ability to improve service delivery for affected individuals and their families.

Working toward the goal of increasing our state's FAS diagnostic capacity, the state has developed a *Network* of statewide *FAS Multidisciplinary Community Teams*. With funding provided by the Alaska Mental Health Trust Authority, community teams are being developed and selected for training in identification, screening, diagnosis and service planning at the University of Washington's FAS Diagnostic and Prevention Network. Selection to receive this training is through a competitive statewide RFP process. Selected communities must indicate a clear understanding of the problem in their community, readiness to begin screening and diagnosis of FAS/FAE, and a true collaborative/multidisciplinary approach to addressing the problem in their community.

The *Network* currently consists of three teams that received training last May. Those teams represent the Bristol Bay Area (Dillingham); the Copper Valley Region (Glennallen/Copper Center); and the Yukon Kuskokwim Area (Bethel). Since returning from the training, each team has developed a "model" that best meets the needs of their individual community. Each model includes a process for both identification/diagnosis and the development of an individualized service plan for the affected individual and their family. Developing a service plan based on the availability of local resources is key to the success of this project. Each model also includes a strong parent advocacy component, utilizing a parent navigator/parent advocate model, like that developed through the Stone Soup Group in Anchorage. Ongoing support, coordination and consultation for the network of teams is provided through quarterly teleconferences, annual in-service training and an internal network for consultation and support.

Three additional teams will be selected for training in February of 2000, with a final 3 teams selected and trained in 2001. Information on how to contact a team for a diagnostic referral is listed in the FAS Diagnostic Resources section of this booklet.

FAS Surveillance Update

Surveillance project releases preliminary data

The number of children born with fetal alcohol syndrome and other alcohol-related birth defects, in Alaska and nationwide, remains somewhat a mystery. Most of the available data is based on estimates, limited data pools, and inconsistent diagnostic and surveillance criteria.

In Alaska, there is considerable interest in knowing the number of children with FAS and FAE and the characteristics associated with these conditions. National FAS prevalence rates range from 0.1 to 0.7 per 1,000 live births (CDC, 1995). In Alaska, a previous study found FAS prevalence among children age 0-17 years to range from 0.5 to 0.8 per 1,000 births (Egland, et al, 1998).

Preliminary data from the Alaska FAS Surveillance Project suggests an estimated FAS Prevalence rate of 1.0 – 1.4 cases per 1,000 live births for children age 0-3 years. *This estimate is based on reviews of children born between 1995-1997, and include those with a confirmed or probable case of fetal alcohol syndrome according to the FAS surveillance case definition. It does not include other fetal alcohol-related conditions.*

How FAS Surveillance Works in Alaska

The FAS Surveillance Project works hand-in-hand with the Alaska Birth Defects Registry. Once a potential case has been reported to the registry, the registry coordinator notifies the FAS Surveillance Project and provides the necessary information for identification. Potential cases include any children that have been reported with the ICD-9 diagnosis code "760.71." This code refers to any alcohol-related conditions including FAS, ARND, FAE, etc. The surveillance coordinator is responsible for reviewing and collecting information from each identified medical record to determine if they meet the case definition.

Limitations and Biases of the FAS Surveillance Project

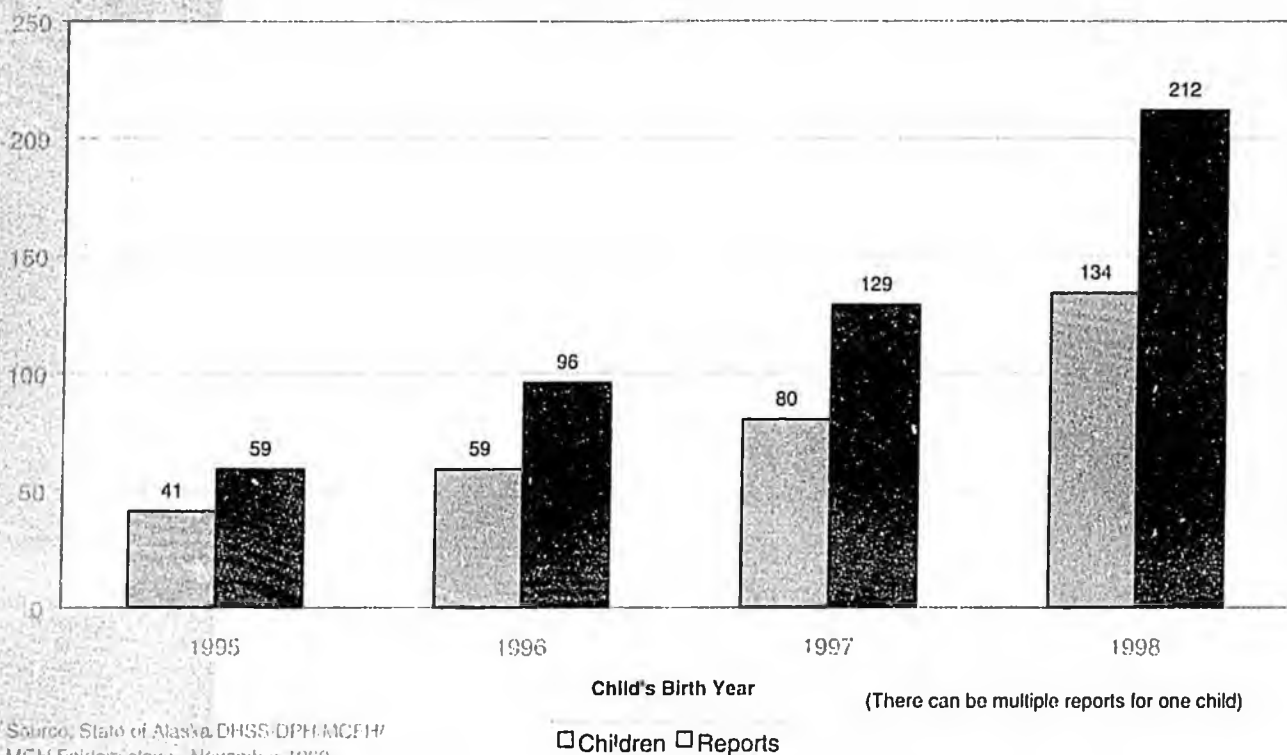
Potential cases are referred from those that have been reported to the Alaska Birth Defects Registry with the ICD-9 diagnosis codes 760.71. The definition of the 760.71 code is "Fetus or newborn affected by alcohol" and it is used to describe fetal alcohol syndrome, fetal alcohol effects, alcohol-related birth defects, and any other alcohol-related conditions. After reviewing records of children reported with this code, it is apparent this code is also used to report drinking during pregnancy, even when there is no documented effect to the child.

FAS Surveillance Case Definition

The diagnosis of FAS is subjective, with a wide range of physical and functional features. *No standard definition of FAS exists.* This makes it very difficult to compare numbers between different regions across the State and even medical facilities within the same community. Surveillance case definitions are used to standardize information. Currently the Alaska surveillance project is using a case definition developed by a multi-state surveillance network so that Alaska's numbers can be compared to other states.

Continued on Page 8

**Figure 1:
Reports of Alcohol-Related Conditions or Maternal Alcohol Use
to the Alaska Birth Defects Registry**



Source: State of Alaska DHSS-DPH-MCFH
MCH Epidemiology - November 1999

For this reason, it cannot be assumed that every child reported with 760.71 has an alcohol-related birth defect. However, the code may be used to identify children who *potentially* have alcohol-related conditions.

There are limitations inherent in the methods used to identify cases. These include not receiving reports from all medical facilities/providers statewide, and having differences in the way providers across the state evaluate and report cases. The limitations are addressed in part because there is the potential for multiple facilities/providers to report the same child.

Preliminary Information Gathered

As shown in Figure 1, the reports of alcohol-related conditions and maternal alcohol use increased steadily between 1995 and 1998. This may indicate:

- ◆ An increase in the awareness of medical providers to note alcohol-related conditions or exposure in the medical record
- ◆ An increase in the awareness of medical facilities and providers to report to the Birth Defects Registry

Of children born between 1995-97, 180 with alcohol-related conditions or exposure were reported to the Alaska Birth Defects Registry as of September 1999

(see Table 1). Of these, 133 medical records were reviewed, representing 96 children (multiple records at different facilities were reviewed on several children in order to get a more complete picture). Of the children whose charts were reviewed, 21 (22%) met the FASSNet Surveillance Case Definition for Confirmed or Probable FAS.

Because only 53% of the 1995-1997 births reported with maternal alcohol exposure have been reviewed to date, FAS prevalence among children in this age group cannot be directly calculated. However, FAS prevalence can be estimated if the

assumption is made that cases abstracted to date are representative of all cases reported with alcohol-related conditions or maternal alcohol use. Using the percentages associated with the Confirmed, Probable and Combined values shown in Table 1, an estimated number of cases per birth year was calculated (see Table 2).

The estimated number of confirmed FAS cases and number of total estimated cases was applied to the actual number of Alaska live births, giving an estimated FAS prevalence rate of 1.0 - 1.4 per 1,000 births. *It is important to note here that this is an estimate made using small and possibly unstable numbers. These are preliminary rates; however they are consistent with previously published rates and more reliable rates will be calculated once reporting to the Alaska Birth Defects Registry is complete, and all medical records have been reviewed.*

Data from the records reviewed also provided information about

Table 1: Potential FAS Cases, Charts Abstracted, and Case Status as of September 1999

Child's Birth Year	Reported w/Alcohol-Related Condition or Exposure	# Children Whose Charts Were Reviewed	Abstracted				Confirmed & Probable % of Abstracted Records
			Confirmed FAS Case ¹		Probable FAS Case ²		
			# Children	% of Total	# Children	% of Total	
1995	41	18	4	22%	2	11%	33%
1996	59	35	6	17%	1	3%	20%
1997	60	43	6	14%	2	5%	19%
Total	180	96	16	17%	5	5%	22%

¹Confirmed FAS Case = Met all four of the categories defined by FASSNet Surveillance Case Definition.
²Probable FAS Case = Met facial feature and alcohol criteria defined by FASSNet Surveillance Case Definition and at least 1 of the other 2 categories (CNS anomaly or growth delay)

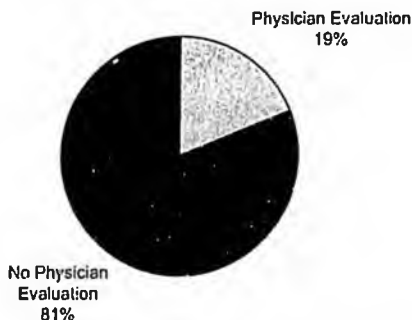
Source: State of Alaska/DHSS/DPH/MCFH/MCH Epidemiology - November 1999

Table 2: Estimated Prevalence of FAS Among Alaskan Children, Age 0-3, Based on Extrapolating Information from Abstracted Records

Birth Year	Estimated # of Confirmed FAS Cases	Estimated # of Probable FAS Cases	Total # Estimated Cases	Alaska Live Births	Estimated Prevalence Rate per 1,000 Births
1995	9	5	14	-	-
1996	10	2	12	-	-
1997	11	4	15	-	-
Total	30	11	41	30,219	1.0 - 1.4

Source: State of Alaska/DHSS/DPH/MCFH/MCH Epidemiology - November 1999

Figure 2: % of Charts Reviewed with a Physician Evaluation of Alcohol-Related Conditions (n=219)



Source: State of Alaska/DIHS/DPH/MCFH/MCH Epidemiology - November 1999

documented alcohol use during pregnancy and physician diagnosis of alcohol-related conditions. Ninety-seven percent (97%) of the children had records documenting maternal alcohol use, and 29% showed alcohol use during at least 2 trimesters of the pregnancy. Only 19% of the records reviewed had a physician evaluation of alcohol-related conditions (see Figure 2). This was lower than expected, but is consistent with the knowledge that medical diagnosis

of FAS and other fetal alcohol-related conditions is not readily available in Alaska.

Future Goals of the FAS Surveillance Project

Over the remaining 3-1/2 years of this project, all records that have been reported to the Alaska Birth Defects Registry (for children born in 1995 forward with alcohol-related conditions or maternal alcohol use) will be reviewed. Once a larger sample of these records has been reviewed, information will be available, including:

- ◆ How Alaska FAS prevalence rates compare to other states
- ◆ How the FAS prevalence varies by race and maternal age
- ◆ How the FAS prevalence varies between geographic regions in Alaska
- ◆ Who the children with FAS are living with
- ◆ How many mothers of children with FAS used other drugs and/or smoked during pregnancy
- ◆ What types of services are children with FAS referred to

For further information about the Alaska FAS Surveillance Project contact Danise Podvin, FAS Surveillance Coordinator at 907-269-3406. For information about the Alaska Birth Defects Registry contact Lisa Durham, Birth Defects Registry Coordinator at 907-269-3443.

Fetal Alcohol Consultation and Training Services (FACTS)

Alcohol-related birth defects have a major impact on an individual's ability to learn and to control their behavior. Students with FAS or FAE are impulsive, hyperactive, and over stimulated. They have difficulty with abstract concepts, memory, cause and effect, and social skills.

All of these deficits lead to difficulty in school—difficulty in learning, socializing and controlling daily behavior. Yet, many individuals with FAS or FAE have normal intelligence, they are exceptionally verbal, and eager to please so their resulting behavior *appears* to be deliberate, non-compliant, and out-of-control.

Fetal alcohol syndrome is a medical diagnosis. Other alcohol-related birth defects [FAE, ARBD and ARND] are not official diagnoses. FAS is not identified specifically as a developmental disability, is not a specific mental health category or a behavioral disorder. For these reasons, it is often difficult for schools to identify and provide appropriate services for children and youth with FAS or FAE. These individuals often fall through the cracks, leaving teachers, administrators, families and affected individuals frustrated and without adequate support.

The *Fetal Alcohol Consultation and Training Services (FACTS)* project was developed to address this need. The goal of *FACTS* is to provide statewide assistance through training, technical assistance and support to schools, individuals, families and communities working with children and youth affected by FAS and other alcohol-related birth defects.

The question being addressed is "what is needed to improve and maximize the educational potential of children and youth impacted by birth defects related to prenatal exposure to alcohol?"

Services include consultation, education and training for developing effective methods and strategies to teach and maximize learning in children prenatally exposed to alcohol. Services are available to public schools, private schools, preschools and parents who home-school their children. In addition, services are available to other community agencies and individuals who work directly with affected children in settings outside, but in collaboration with, the school arena. This includes programs such as Infant Learning, mental health counselors, child protective services, respite care and others.

Continued on Page 12

Sixty-eight percent of the children served through the Division of Family and Youth Services' subsidized adoption and guardianship program are affected by FAS or prenatal drug or alcohol exposure.

***Division of Family
and Youth Services***

Efforts to reduce alcohol consumption among teenagers and young women may benefit from concerted programs focusing on family planning and the prevention of polydrug use and sexually transmitted diseases.

CDC Study on Binge Drinking in Women

The long-term goal of the *FACTS* project is to build community capacity to support children with FAS and other alcohol-related birth defects both in the schools and in their communities.

FACTS is a program of the University of Alaska Fairbanks, Northern Studies Department. During fiscal year 2000 the project will target six communities for intensive on-site consultation, training and support. These communities are Bethel, Barrow, Fairbanks, Glennallen/Copper Center, Dillingham and Ketchikan. In addition, statewide services will be available in the form of training, resource materials, phone consultation, a web site and a computer listserv for ongoing discussions about educating children with prenatal exposure to alcohol.

Motivational Interviewing/ Services for High-Risk Women

The Fetal Alcohol Syndrome Motivational Interviewing Project was developed to help special populations at risk of having children with fetal alcohol syndrome. Through the Section of Maternal, Child and Family Health within the Division of Public Health and in cooperation with the Department of Corrections, this project focuses on the "high turn-around" population of women who enter and exit the Hiland Mountain Correctional Facility in Anchorage.

The goal of the project is to intervene with female offenders who are released from Hiland Mountain Correctional Facility into the community offering family planning services and referral to other appropriate services such as substance abuse treatment. The project is being carried out as a pilot project in Anchorage with the intent of expanding the project in the future.

Women in prison have been identified as a population at risk for producing children with fetal alcohol syndrome. The *Assessment of the Needs of Women Offenders in Custody of the Alaska Department of Corrections, Final Report, March 31, 1998*, indicates that 66% of women offenders who responded to their survey were under the influence of drugs or alcohol at the time they committed their offense. Aggregate information available in the report reflects that 45% of the respondents felt that their female health needs were not being met. It is unknown whether they would have sought medical care for these conditions if not incarcerated; however, these figures point to a population potentially in need of health and substance abuse treatment services.

The Motivational Interviewing Project will fund a health care provider to be the site of family planning and other supportive services. It is anticipated that the provider will offer the needed health care services, focusing on family planning methods. Additionally, a case manager within this health care setting will provide ongoing assistance to the women, including referral to substance abuse treatment services through a motivational interviewing process.

The Motivational Interviewing process is an approach designed to help people build commitment and reach a decision to change. It draws on strategies from client-centered counseling, cognitive therapy, systems theory and the social psychology of persuasion. From a theoretical perspective, motivational interviewing lies in two areas: it draws heavily on the construct of ambivalence and the conflict between indulgence and restraint (Miller & Rollnick, 1991). This approach will be piloted through this project on a variety of issues that are pertinent to the intended population. It is anticipated that motivational interviewing will contribute to an increase in enrollment in substance abuse treatment services when appropriate. The project is currently in the contract solicitation process. Project start-up is expected in early January 2000.

Consumer Boards Respond to FAS Agenda

In Alaska's planning and advocacy system, responsibility for children and youth with neurological disorders are shared by the Governor's Council on Disabilities and Special Education, the Advisory Board on Alcoholism and Drug Abuse and the Alaska Mental Health Board. All three consumer boards have taken an active role in developing a long-term, comprehensive FAS agenda for the state of Alaska.

Governor's Council on Disabilities and Special Education

The mission of the Governor's Council on Disabilities and Special Education is to create change that improves the lives of Alaskans with disabilities. This year the Council is focused on a number of major initiatives in planning, evaluating and promoting services that will benefit people with FAS/FAE.

The council is working to streamline the Developmental Disability Home and Community-Based Services Waiver. This will make it easier to use the system and to assist individuals and families in being better consumers of services funded through the DD waivers.

Continued on Page 14



Brandon, age 12 and diagnosed with FAE, loves baseball. This year Brandon and his team, the Ketchikan All Stars, won the Alaska State Championship in Sitka and went on to San Bernadino, Calif., for the Western Regional tournament. While he is the tiniest kid on the team he is often referred to as "the kid with the biggest heart."

Screening & treatment services for women
Between FY 98 and FY 2000, Alaska increased funding of treatment services for women by 40 percent -- from \$1.3 million to \$2.2 million.

~
Both residential and out-patient treatment services specifically for women and their children are now available in Anchorage, Fairbanks, Mat-Su, Dillingham, Sitka and Juneau. During FY 99, nearly 3,000 women received such services.

~
On-site substance abuse screening services are available for high-risk women through state child protection and public assistance offices in Anchorage, Fairbanks and Mat-Su. This increases timely and appropriate referrals.

In early development and education, the council is incorporating the concepts of the Individual Family Service Plan used to provide Infant Learning Program services into the Individual Education Plan in school-based special education. Expanding statewide Fetal Alcohol Consultation and Training Services that collaborate with school districts, school personnel, parents, and community resources to deliver appropriate education of students with FAS/FAE is also a top priority.

The council is attempting to increase employment opportunities for individuals with disabilities through economic development and small business ownership. With resources provided by a five-year federal grant, the council is designing a system of Alaska-specific employment incentives for people with disabilities to get and keep jobs.

Advisory Board on Alcoholism and Drug Abuse

As part of its overall mission to combat alcohol abuse, the Advisory Board on Alcoholism and Drug Abuse is committed to the elimination of FAS/FAE births in Alaska. The board:

- ◆ Advocates for funding that provides education, early intervention and treatment to pregnant women and those of child-bearing age who abuse alcohol.
- ◆ Advocates for expanding transitional housing capacity for women and women with children who have completed substance abuse treatment and are working toward successful transition back to their communities.
- ◆ Collaborates in the sponsorship of FAS/FAE forums and summits.

In addition, the board included numerous references to FAS initiatives in "Results Within Our Reach", the State Plan for Alcohol and Drug Abuse Services, 1999-2003. Each of the 18 strategies offer practical support for reducing fetal alcohol syndrome and other alcohol-related birth defects.

Alaska Mental Health Board

In an effort to focus on the needs of individuals with FAS or FAE, the Alaska Mental Health Board (AMHB) has become involved in several collaborative projects. These coordinated approaches will help ensure that children and youth with FAS/FAE receive appropriate early diagnosis, support and treatment.

The *Transition Services Task Force* is a subcommittee of the AMHB Children's Workgroup. The workgroup has selected three priorities for

action—out-of-state placements, transition services for children entering the adult mental health system and integration and collaboration within the department. The goal for this group is to develop an effective system that brings together the youth, their family, friends, natural supports, service providers and the legal system to actively support the youth in meeting developmental challenges, achieving personal goals and establish supportive relationships.

The *Mental Health Stabilization Homes* are a collaborative effort by several DHSS agencies to provide a five-bed, short term residential facility that will serve children with mental health issues, who are in state custody. This service will allow families, communities and providers time to prepare a child's permanent placement in a therapeutic environment that is less restrictive than hospitalization or an institute.

The *Young Child Behavioral Health Initiative* has three components aimed at addressing prevention and early intervention. Those components are: training and support for providers of services to families of young children; parenting resources and support; and coordination of and access to systems that impact young children and their families.

What's next?

Alaska in line for \$5.8 million federal FAS grant

Thanks to the support and efforts of Sen. Ted Stevens, Alaska is in line to receive \$5.8 million in federal funds to increase state efforts to prevent and treat fetal alcohol syndrome and other alcohol-related birth defects.

Increased funding will provide Alaska with the opportunity to develop a more coherent, integrated and comprehensive state agenda on fetal alcohol syndrome. Strategies to strengthen Alaska's response to FAS include:

- ◆ Create a comprehensive, community-based approach to preventing fetal alcohol-related birth defects.
- ◆ Establish statewide data collection, analysis and research related to substance abuse and pregnancy so we can better measure improvements in our prevention and service efforts.
- ◆ Establish a statewide system to identify, screen and diagnose individuals affected by prenatal exposure to alcohol.
- ◆ Prevent FAS by increasing our state's existing system of care for substance-abusing women at risk of pregnancy.
- ◆ Increase services to meet the needs of individuals impacted by prenatal exposure to alcohol.

**Governor's Council on
Disabilities & Special
Education
269-8990**

~
**Advisory Board on
Alcoholism & Drug
Abuse
465-8920**

~
**Alaska Mental Health
Board
465-3071**

Fetal Alcohol Syndrome: Alaska's most preventable birth defect

FAS/FAE Resources in Alaska

FAS Diagnoses

Alaska Genetics & Birth Defects Clinics

1-800-799-7570 (statewide)

907/269-3430 (Anchorage)

Alaska Native Medical Center—Pediatrics

907/729-1000 (Anchorage)

Alaska Neurodevelopmental Clinics

1-800-799-7570 (statewide)

907/269-3460 (Anchorage)

Bristol Bay Area FAS Community Team

Joy Crow at 907/842-4139 or

1-800-478-4139 ex. 356

Copper Valley Region FAS Community Team

Gay Wellman at 907/822-5241

Providence Pediatric Neurodevelopmental Clinic

907/562-9212

Yukon Kuskokwim FAS Community Team

Dr. Eric Noble at 907/543-6300

University of Washington

FAS Diagnostic & Prevention Network

206/526-2000

FAS/FAE Parent Support

Alaska Foster Parent Training Center

1-800-478-7307

Anchorage Parent Education Group (PEG) for Families of Children with FAS/FAE

907/694-6644 or 907/345-4808

Bethel FAS Parent Support Group

907/543-6486

Fairbanks FAS/FAE Parent Support Group

907/479-6584

Fetal Alcohol Consultation and Training Services (FACTS)

1-877-393-2287 (statewide)

PARENTS, Inc.

1-800-478-7678 (statewide)

907/337-7678 (Anchorage)

Parents Resource Network

1-877-786-7327 (statewide)

907/344-1997 (Anchorage)

Stone Soup Group

907/561-3701



Fetal Alcohol Syndrome

Alaska's #1 Preventable Birth Defect

Visit us online at www.hss.state.ak.us/fas



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