Looking at Ourselves
Linking with Our Communities
Building a Unified Vision for Public Health in Nevada

The Public Health Agenda: Achieving the Vision

Nevada State Health Division
Department of Human Resources

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Introduction

The Bureau of Community Health plans to create an Office of Chronic Disease Prevention and Health Promotion (OCDPHP) to address the burdens and risk factors associated with diabetes, cardiovascular disease, comprehensive cancer, asthma and arthritis. The risk factors include tobacco use, obesity and lack of physical activity. In the future the OCDPHP will explore funding opportunities for asthma and physical activity programs. According to former U.S. Surgeon General David Satcher, “Overweight and obesity are among the most pressing new health challenges we face today” and “may soon cause as much preventable disease and death as cigarette smoking.”

Chronic diseases, particularly, cardiovascular disease, cancers, chronic obstructive pulmonary disease, and diabetes, are among the leading causes of death in Nevada and the United States. As the population in Nevada ages, the costs and burdens from chronic and disabling conditions will increase dramatically and present ever-greater challenges to Nevada’s health care, public health systems and the general public.

The term “chronic disease” refers to a wide variety of health conditions that are not contagious, that either take years to develop or persist for many years after their development, and that can rarely be completely cured. The chronic diseases that cause the most death and disability in Nevada are: cardiovascular diseases (such as heart disease and stroke), cancers (including lung, breast, prostate and colon), chronic lower respiratory diseases (including asthma, chronic bronchitis, and emphysema), diabetes and arthritis. In 2000, these chronic diseases accounted for 66% of all deaths and 39% of potential years of life lost before age 70.

Heart disease is the leading cause of death in Nevada and the United States. In response, the OCDPHP applied for a cardiovascular disease prevention program grant in April 2002. In early February 2002, the OCDPHP held the first Statewide Partnership for Cardiovascular Health meeting. A survey was prepared to gather input from agencies, organizations and government programs to assist the OCDPHP in preparation for the meeting. The survey was collated to assess the level of work, commitment to future growth, programmatic and funding gaps, barriers, surveillance and evaluation, and to identify partnerships and linkages already in place. The Statewide Partnership drafted a mission statement and goals.

Cancers kill the highest proportion of Nevada residents under 75 years of age. As a result, the OCDPHP will link with the Women’s Health Connection and use their successful breast and cervical cancer screening to also screen for other chronic diseases. Women’s Health Connection currently has a grant for breast and cervical cancer and OCDPHP will be applying for the Comprehensive Cancer grant.

By July 2002, the Bureau of Community Health will assess the level of health education and promotion activities pertaining to chronic disease currently occurring in the state's public health providers, Clark County Health District, Washoe County District Health, and the Rural Community Health Nursing Program.

As science has shown the impact of risk factors, such as nutrition, physical activity, and tobacco use, on chronic diseases, a greater emphasis has been placed on health education, health promotion, and wellness programming at all levels of prevention. As part of the strategic plan to maximize resources and provide chronic disease prevention services, it is critical to organize programs addressing chronic disease.

Action Steps:
The incidence and burden from all chronic diseases in Nevada can be dramatically reduced through prevention activities that decrease such risk factors as tobacco use, physical inactivity and poor nutrition. The goal of assessing current health education and promotion activities is to determine the level at which public health in Nevada is able to:

- utilize general strategies and mass educational campaigns to prevent and manage chronic diseases. The methods utilized at both statewide and community level to educate, support, and empower individuals who wish to adopt and maintain healthy behaviors.
- utilize primary prevention strategies to prevent risks before they occur. Tobacco use, poor nutrition, and physical inactivity account for over 1/3 of all deaths in Nevada. Effective primary prevention strategies include not only those that increase education and awareness of issues but also those that look at the environment in which people live, and implement strategies to reduce barriers and make healthy choices more available. Strategies to increase physical activity are important as it often serves as a gateway to other healthy behaviors.
- utilize secondary prevention strategies to reduce existing risks so as to identify and prevent disease. Examples include tobacco cessation programs and health screenings.
- utilize tertiary prevention strategies to reduce disease burden and complications for people who are already suffering from the disease. Patient education and self-management programs provide people with these diseases the opportunity to learn the technical skill they need in order to manage their own disease and the information necessary to become their own advocates for effective care.

Measures of Success:
1. Documentation of existing chronic disease education and health promotion.
2. Documentation of resources, such as training, consulting and technical assistance to individuals, health programs, or public health agencies in the promotion of good health and disease prevention through education.
3. Application of population-based intervention and prevention strategies by:

- Effective assessment of individual and community needs for health education,
- Established comprehensive health education programs,
- Implemented health education programs,
- Established evaluation system of effective health education programs,
- Coordinated provision of health education services,
- Established resource liaison in health education, and
- Established communication pipeline of health education needs, concerns, and resources.

By January 2003, the Bureau of Community Health will develop and maintain a chronic disease website that will provide accurate and reliable information about important health challenges for private providers and the general public.

The Health Division recognizes that by working together, sharing information, and providing the information necessary for individuals and communities to take action against chronic disease, we will see a healthier Nevada. The Bureau of Community Health will provide leadership in establishing the website and coordinating information available from bureaus within the Division.

Action Steps:
This website will allow the public to learn about local, state, and regional health coalitions that are working to improve the health of our communities. Viewers will be encouraged to enhance their personal well-being and promote behavior change to reduce stress and health related risks through the following activities:

- Provide information on screening events,
- Create educational materials,
- Share effective interventions strategies,
- Identify coalition groups,
- Promote strategic prevention campaigns,
- Provide events calendar and personal health assessments, and
- Provide links to other partners and resources.

Measures of Success:

1. Public access to chronic disease information and feedback of website.
2. Provider access to clinical information on chronic disease and links to related health databases.

By July 2003, the Bureau of Community Health will assist in supporting proposed legislative bills and resolutions that will enhance chronic disease and other related health programs, and identifying proposed bills that have an impact on these programs financially, regulatory, and prevention strategy efforts.

The Bureau recognizes that participating as a member of a multidisciplinary team is essential to conduct and support strategies of resolutions set by community advocacy groups and legislation.

Action Steps:
The policy and/or program development responsibility at this level may have significant impact on other departmental health programs or on local, State, or Federal agencies. The work performed at this level has the potential for resulting in establishment of new programs or major modification of existing programs. Therefore, the health education unit will be instrumental in:

- Reviewing policies, programs, standards, or procedures;
- Preparing legislative reports or proposals; and
- Analyzing legislative bills for program impact and/or compliance.

Measures of Success:

1. Established strategic, creative leadership and coordination in policy analysis, planning, program development and evaluation.
2. Established partnership development and legislative activities within the Health Division to reduce disease.
3. Evidence of bills and resolutions either being passed or not that positively affect health programs.

By July 2002, the Health Division will list and prioritize at least 10 chronic diseases for which public health intervention is most appropriate.

The State Epidemiologist and State Biostatistician will create the prioritized list and seek review and comment from the program managers throughout the Health Division.

Chronic diseases can be defined as those that have a prolonged course, that do not resolve spontaneously, and for which a complete cure is rarely achieved. Chronic diseases, particularly, cardiovascular disease, cancers, chronic obstructive pulmonary disease, and diabetes, are among the leading causes of death in Nevada and in the United States. There are a large number of other health-related problems that could also fit this definition. It is necessary, therefore, to identify a subset of chronic diseases that should be first to receive programmatic emphasis in a public health context.

Although some chronic diseases are more reported than on others from a morbidity/ mortality standpoint, there are other considerations that must also come into play. The State Epidemiologist and State Biostatistician will take the following into consideration to develop the prioritized list:

Action Steps:

1. Develop a prioritization matrix that takes into account:
    - Morbidity, mortality and Years of Potential Life Lost (YPLL),
    - Preventable risk factors,
    - Availability of effective interventions,
    - Analyses of cost and benefit,
    - Political and financial feasibility,
    - Cultural norms,
    - Populations at increased risk,
    - Disparities in health status and access to care, and
    - Integrate into existing programs.
2. Evaluate and seek feedback from program managers within the Health Division.
3. Utilize prioritized list to seek funding and implementation strategies for chronic disease control initiatives.

Measures of Success:

1. Existence of a prioritized list of chronic diseases.
2. Evidence of program development in accordance with the priorities outlined in the list.

By December 2005 the Health Division will expand and enhance existing data systems to create a comprehensive capability to assess the burden of chronic diseases in terms of both mortality and morbidity.

The Bureau of Health Planning and Statistics will focus existing data warehousing initiatives on chronic diseases to ensure accomplishment of this recommendation.

An epidemiological surveillance system for monitoring trends in chronic diseases is an essential part of chronic disease control. The system is needed for several key reasons:

- To identify groups of people who are at risk of chronic disease or who experience fewer benefits from interventions,
- To measure the effect of program interventions,
- To identify newly emerging chronic diseases, and
- To measure the burden and incidence of chronic disease in Nevadans.

Action Steps:

1. Develop an inventory of existing chronic disease databases.
2. Identify which existing chronic disease databases the Health Division currently owns or which data have been obtained through existing agreements.
3. Enter into agreements with data owners to participate in data warehousing.
4. Ensure that data contributors have appropriate access to warehoused data.
5. Market the data warehouse to policy and decision makers.
6. Explore ways to link databases for program enhancement.

Measures of Success:

1. Data warehouse contains data on high priority chronic diseases from multiple sources.
2. Number of data inquiries to the data warehouse.

The above-mentioned activities will allow the Health Division to address data driven approaches. By enhancing existing data systems to create a comprehensive capability to assess the burden of chronic diseases, we will improve the quality of the data collection process, we will provide information a single database could not reveal and efficient data will allow for better decision-making.

The prioritization of diseases will ensure that resources are directed where they will do the most good for the greater number of people.

Introduction

Throughout history, unintentional and intentional injuries have been the major cause of premature death. An injury is defined as: "Any intentional or unintentional damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of such essentials as heat or oxygen" (National Committee for Injury Prevention and Control). It is important to emphasize that injuries are not random, uncontrollable events, but rather predictable and preventable incidences with identifiable risk factors. In Nevada, the State Health Division is currently focusing on reducing intentional and unintentional injuries. This includes the following focus areas: motor vehicle injuries, homicide, suicide, rape prevention and sexual assault, firearm injuries, traumatic brain/spinal cord injuries, fire and burn injuries, fall injuries, and poisonings.

In modern America, injury takes a high toll on the lives of our citizens and is the leading killer of our children, teenagers, and young adults. Nearly 19,000 children and teenagers under the age of 20, died from injuries in the United States in 1997. In 1997, 146,400 persons of all ages died in the United States from injuries due to a variety of causes such as motor vehicle crashes, firearms, poisonings, suffocations, falls, fires and drownings. Of these, 92,353 persons died as a result of unintentional injuries. The number of injuries that did not result from death is not available. *Healthy People 2010, 2nd. Ed, reports*: on an average day in America, 53 persons die from homicide, and a minimum of 18,000 persons survive interpersonal assaults, 84 persons complete suicide, and as many as 3,000 persons attempt suicide. The American Medical Association reports that sexual assault is one of the fastest growing violent crimes in America. Nevada has more than double the incidence of rape than does the nation as a whole.

From 1991-2000, 9,774 Nevadans died as a result of injuries, which was among the top ten leading causes of deaths and 7.8% of deaths. Of the 9,774 injury deaths, 5,249 were unintentional and 4,480 were intentional. These statistics include the young and the elderly alike. Injury has no prejudice; it affects all ages, races, religions, and genders.

Only in recent years has much been done to develop cost information on injury. So what is known? We know*, in the words of a 1989 report to Congress on the *Cost of Injury in the United States*, that: for the 57 million persons injured in 1985, the cost amounts to $157.6 billion, or $2,772 per injured person. Direct expenditures for hospital and nursing home care, physician services, amount to $44.8 billion or $790 per injured person.

The direct cost is only the beginning. Disability from injury results in loss of output. Taking into account members of the labor force, housekeepers, and others unable to attend to their usual activities, more than 5 million life years are lost, 9 years per 100 injured persons, valued at $64.9 billion. The morbidity cost amounts to $1,145 per

injured person.

Other losses result from premature injury fatalities. Approximately 143,000 premature deaths from injury occurred in 1985 and an additional 13,000 deaths occurred in later years due to injury sustained in 1985. Premature death due to injury is extremely costly to the nation, amounting to an estimated annual loss of 5.3 million life years, or 34 years per death. The loss to the economy amounts to $47.9 billion at a 6% discount rate, or $307,636 per death.

This report to Congress can now be seen as an underestimate of injury costs. By the mid- 1990's the estimated cost of injury had risen to more than $224 billion (a 42% increase in a decade). Public sources (federal, state, and local) pay about 28% of this cost. Injury economist, Ted Miller provides an even higher estimate for 1995: $325 billion spent on injury and its consequences (including medical costs, work days lost, and insurance claims processing expenses).

The State Health Division believes that devoting collective attention and resources to injury prevention is a priority. The aim of the State Health Division is to contribute to those prevention activities that seek to reduce the incidence of unintentional and intentional injuries for all people in Nevada, in particular, those injuries that occur in the home and workplace, and during leisure activities. Promoting the epidemiological monitoring of injuries, and information exchanges of the state's injury data, will lead to maximizing resources and prevention strategies. However, in order to exchange data and information on injuries, a common understanding about indicators is needed. Establishing a formal process for sharing this information, and analyzing it effectively, so it is presented in an appropriate manner, is important for the State Health Division and to those who make or influence decisions.

In order to address injury prevention, a better, comprehensive understanding of its impact in Nevada must be developed. Data is critical to any initiative, to ensure available resources are targeted to the most need, and avoid duplications. Well-planned and implemented public awareness initiatives around injury prevention must be promoted. It will address families, from the youngest to the oldest. It will address the workplace, from the worker in the factory to the patient in the nursing home. It will address Nevadans in their leisure time, whether on the road, attending a performance, or visiting friends. The goal of the State Health Division is to reduce injuries, disabilities, and death due to intentional and unintentional injuries.

Finally, all injury prevention activities undertaken by the State Health Division will be culturally and linguistically appropriate. This would include parent training, mentoring, home visiting, and any public awareness campaign.

* COST OF INJURY IN THE UNITED STATES: A report to Congress. San Francisco: Institute for Health and Aging, University of California and Injury Prevention Center, The John Hopkins University.

Children's Safety Network Economics and Insurance Resource Center. Landover, MD: National Public Services Research Institute; 1995

To enhance the process of data collection, sharing, analyzing, and utilization to guide injury prevention programs in the state of Nevada.

Public health surveillance and monitoring of health behavior and conditions form the basic foundation of public health; regular collection and analysis of information related to emerging patterns of injury morbidity, mortality, and disability, associated costs, and relevance of injury-related risk factors and behavioral patterns is essential. Outcomes of program interventions are often evaluated by surveillance data.

By June 30, 2003, The Nevada State Health Division will enhance the process of data collection, sharing, analyzing, and utilization to guide injury prevention programs in the state of Nevada.

Action Steps:

1. Ensure data is comprehensive by linking with traditional and non-traditional databases.
2. Determine issues of injury prevention by geographical location, race/ ethnicity, and population trends.
3. Assess the impact of injuries in the state of Nevada.
4. Collaborate with partners to assess the needs for legislation to facilitate collection of appropriate and accurate data.

Measures of Success:

1. Assess that all database linkage is complete, while determining existing databases, overlaps, and gaps in the data.
2. Assessment of issues of injury prevention by geographical location, race/ ethnicity and population trends is completed.
3. Assessment of the impact of injuries in Nevada is completed.
4. Legislation package drafted as appropriate, to address the results of collaboration and needs assessment.

To establish a comprehensive injury prevention program that targets families of all races, ethnicities, genders, ages, and socioeconomic and geographic areas in the state of Nevada.

The State Health Division, under the leadership of the Bureau of Family Health Services, seeks to advance the health of mothers and children. The Bureau serves women of childbearing age, mothers, children, youth, and families. Its primary focus is supporting state, specifically communities, in their efforts to plan, organize, and deliver primary and preventive health care. It reaches especially high-risk populations for injury and violence prevention and directly works on injury prevention issues. Because unintentional injuries and violence is the leading killer of children and adolescents, and of the elderly, it makes sense that a significant proportion of this effort be devoted to families within the state of Nevada.

By June 30, 2005, the Nevada State Health Division will establish a comprehensive injury prevention program for the state of Nevada.

Action Steps:

1. Identify unique prevention and intervention mechanisms to assure injury prevention in the home and during leisure and recreation activities.
2. Within available funding parameters, implement the programs that were identified by data collection as priority.
3. Determine potential resources for un-funded identified strategies.

Measures of Success:

1. Unique prevention and intervention mechanisms identified by June 30, 2003.
2. Programs identified and implemented by June 30, 2005.
3. Resources determined for un-funded identified strategies by June 30, 2005.

To enhance partnerships and collaborate within state agencies and with outside interested parties to reduce all preventable injuries within the state of Nevada.

The injury problem is too large and diverse for any one group to address alone. There are many other disciplines, agencies, and organizations currently involved in injury prevention, education, and policy development. Because public health addresses the diverse causes of injury (e.g. traffic, falls, sports, violence, drowning) the State Health Division is the appropriate group to coordinate and/or facilitate state and local injury prevention efforts. A byproduct of this statewide coordination is the prevention of fragmentation and duplication of prevention activities.

Through 2007, the Nevada State Health Division will continue to enhance partnerships and collaborate within state agencies and with outside interested parties to reduce all preventable injuries within the state.

Action Steps:

1. Involve stakeholders at state and local levels.
2. Coordinate program linkage of Health Division programs with other state and outside agencies.
3. Collaborate within the Division, programs that target underlying risk factors and behaviors and those that provide injury prevention services such as emergency medical services.
4. Collaborate with agencies on underlying risk factors and behaviors.

Measures of Success:

1. Ongoing coordination and collaboration occurring within the State Health Division.
2. All identified stakeholders invited to participate in addressing injury prevention.
3. On going coordination and collaboration occurring with state and outside interested agencies.

To increase heightened awareness of workplace safety and health for employees and the general public.

An important function of statewide injury prevention is to make sure all aspects of one's safety is protected. In the workplace it is not only important for injury prevention to address the workers of a particular business, but also the clients of the business and the general public, who visit these establishments. Enforcing and educating facility operators in identifying potential injuries and environmental hazards, correction of these hazards, emergency services, and ensuring an open communication line with regulating agencies, is very important in Nevada's goal to keep Nevadan's safe at home, on the move, safe at school, safe at work, and safe in the community (SAFE USA).

By June 30, 2005, the Nevada State Health Division will increase heightened awareness of workplace safety and health for employees and the general public.

Action Steps:

1. Identify unique prevention and intervention mechanisms to assure injury prevention in the workplace, as well as in the home and during leisure and recreation activities.
2. Implement, within available funding, the programs that were identified by data collection as priority.
3. Determine potential resources for un-funded identified strategies.

Measures of Success:

1. Unique prevention and intervention mechanisms identified by June 30, 2003.
2. Programs identified and implemented by June 30, 2005.
3. Resources determined for un-funded identified strategies by June 30, 2005.

Introduction

The issue of responding to public health threats was identified as a high priority focus area by the Health Division's strategic planning process. Subsequent to this identification, the federal government has allocated over $10.4 million to the State of Nevada for the purpose of preparing and responding to biological terrorism, infectious disease outbreaks, and other public health emergencies.

Allocation of these funds requires the formation of advisory committees to deal with public health and hospital issues. Fortunately an infrastructure for these committees already exists under the auspices of the Committee on Homeland Security operated by the Nevada Division of Emergency Management.

This funding allocation also requires some detailed planning for statewide and regional preparedness. As a result of the detailed planning requirement, this section of the Health Division plan will defer to the Committee on Homeland Security and it's planning process.

Enhance Infectious Disease Response Capacity

By December 2002, develop a referral/documentation system to track communicable disease investigation and control activities carried out by rural county community health nurses.

Action Steps:

1. Develop/modify protocols for infectious disease follow up.
2. Develop/modify a referral form with feedback for infectious disease follow up conducted by community health nurses.
3. Analyze data from referral form.
4. Develop staffing/workload recommendations based on analysis.

Measures of Success:

1. Infectious disease protocols in place.
2. Reports from referral outcome analysis prepared.
3. Appropriate recommendations made based on analysis.

By December 2003, create a system for active and syndromic surveillance associated with high profile public events and high threat diseases.

Action Steps:

1. Identify appropriate software to allow healthcare facilities to report syndromic cases in real time.
2. Assess and modify, as necessary, existing statutes and regulations.
3. Implement the system.
4. Test the system through exercises and drills.

Measures of Success:

1. 75% of emergency rooms and urgent cares are participating in the system.

By December 2003, enhance the existing integration of infectious disease response across the Health Division, specifically the bureaus of Health Protection Services, Licensure and Certification, Community Health Services, and the Office of Epidemiology.

Action Steps:

1. Convene a biannual meeting of representatives from respective bureaus to review problems and develop protocols as necessary.

Measures of Success:

1. Two meetings will occur by December 2003.
2. Issues identified in the meetings are adequately addressed.

By December 2005, develop the capability to have 50% of healthcare providers, 100% of laboratories, and 100% of healthcare facilities reporting notifiable disease electronically.

Once expected to be eliminated as a public health problem, infectious diseases remain the leading cause of death in the nation and worldwide. The spectrum of infectious disease is changing rapidly in conjunction with dramatic changes in our society and environment. The last few years have borne witness to both a re-emergence of threats once thought vanquished and an emergence of new, frightening conditions. Common words in the public health arena now include bioterrorism and germ warfare. Controlling and preventing infectious disease must be a high priority.

To effectively address infectious diseases, national goals involving surveillance, applied research, prevention and control, and infrastructure have been developed. The recommendations to enhance infectious disease response capacity in Nevada address passive surveillance, active surveillance, infrastructure improvement, and collaboration.

Action Steps:

1. Evaluate current secure data network capabilities within the Health Division.
2. Assess the capabilities of healthcare providers, laboratories and health facilities to utilize an electronic reporting system.
3. Assess and modify as necessary, existing statutes and regulations for disease reporting.
4. Identify responsible entities to take enforcement actions relative to disease reports.
5. Implement electronic reporting.

Measures of Success:

1. Availability of an electronic reporting infrastructure.
2. 80% of notifiable diseases are reported electronically.

Introduction

The environment is everything around us - the air we breathe, the water we drink and use, and the food we consume. It also includes the chemicals, radiation, microbes and physical forces in the environment that we may come into contact with. Our interactions with the environment are complex and not always healthy. At the Nevada State Health Division, we are working to prevent illness, disability, and ultimately death from interaction between people and the environment.

Efforts to assure a healthy and safe environment involve coordinated work at local, state, and federal levels to establish standards, design effective interventions, and provide on-going monitoring. Some activities include licensure and permitting, inspections, public education and awareness, and industry standards. Public health efforts to assure a safe and healthy environment are growing as knowledge increases about how the environment affects the health of all people. The recommendations to assure a healthy and safe environment include activities targeting regulatory, education, collaboration and data analysis. Assuring a safe and healthy environment for all residents of and visitors to the state of Nevada is of critical importance to protect.

By January 2005, we will improve access to and utilization of reliable data to provide early warning indicators of environmental health hazards.

In August 2001, one of the exciting recommended actions emanating from the Health Division's Future Search workshop was the creation of a Health Data Team with representatives from each Bureau and Administration within the Health Division. Major endeavors for the Health Data Team will include: develop comprehensive understandings and policies on such data issues as sources of reliable data, confidentiality; data integrity; standardization of databases and data dissemination; philosophy and project management; and a loop between Bureau databases, the Center for Health Data and Research and other major stakeholders/users. One of the common understandings reached from the Health Data Team meetings was that a data warehouse is needed for better data function in the future within the Health Division. This data warehouse will be a centralized electronic repository for databases, including databases related to environmental health from each bureau and outside agencies. The data warehouse won't change their current location, function and operation, but will be linked through various statistical processes, and then will provide tremendous valuable information where stand-alone databases could never provide.

The Health Data Team's endeavors are to assure the development and dissemination of valid information that aids decision makers in setting policies, managing problems and identifying emerging environmental health trends.

Action Steps:

1. Utilize the existing Health Data Team to determine sources of reliable environmental data.
2. Utilize the existing Health Data Team to assure data are valid, assessable and usable to decision makers.
3. Develop collaborative interactions with the laboratory industry.

Measures of Success:

1. Surveys of all laboratories analyzing regulated parameters in drinking water will ensure that the laboratories use approved methodologies, acceptable procedures, and produce legally defensible data of known quality.
2. The presence of three or more reliable environmental data sets in the Health Division data warehouse.

By January 2007, improve coordination between agencies certifying environmental laboratories and agencies utilizing environmental laboratories to better serve public health.

Lending institutions are required to have drinking water from domestic wells analyzed prior to sale of the properties. Private homeowners may wish to determine the safety of their water as a matter of prudence. They often do not know, however, which parameters are most important to analyze for the area. Also, it is often the case that neither the realtor/homeowner, nor the prospective client, is conversant with the meaning of the analyses when they are complete. Some wells may require only simple analyses while others may warrant more complex analyses. The cost of analysis is proportional to its complexity.

Drinking water panels developed by the stakeholders and those knowledgeable of the geology and hydrology of the state, and the science associated with drinking water, its contaminants, and proper analysis, will be very helpful to all parties for selecting appropriate analytical panels and assessing the results. The health of the residents of and visitors to the state of Nevada will be safeguarded accordingly.

Action Steps:

1. Create common water analyses recommendations, or "panels" for private owners of domestic wells consistent with geographic locations and known contaminants.
2. Collaboration with other parties, agencies, laboratories, and education groups, etc. to create these "panels."

Measures of Success:

1. Existence of the recommended water "panels" based on public health, environmental health and geographic locations.
2. The utilization of the panels by the intended groups.

By July 2003, the Radiological Health Program will collaborate with the Nuclear Waste Project Office and other appropriate agencies to identify the resources to accomplish the evolving broader scope of responsibilities.

Future priorities need to be determined for existing staffing and operational resources. This is in response to the tremendous increase in existing program industry growth and new program expansion.

This expansion is due to various things such as: public interest; directives from various agencies of state government; and decisional meetings with representatives of the Governor's Office (i.e. Agency for Nuclear Projects, Division of Emergency Management, Nevada Highway Patrol, Department of Public Safety, etc.).

All of these agencies and more are expected to provide input for a future plan for Nevada's radiation control activities.

Action Steps:

1. Conduct a workshop with the Nuclear Waste Project Office and other appropriate agencies.

Measures of Success:

1. Complete the workshop.
2. Examine possible sources of funding.

By January 2006, enhance the Food Safety Program by creating a statewide network to improve food safety from "farm to table."

The goal of this recommendation is to make the retail food available within Nevada as safe as possible. In order to accomplish this, the standardization of all environmental health specialists/sanitarians must be attained. The purpose of standardizing is to have all inspectors performing their assigned inspection in the same manner, to interpret the regulatory code in the same way and to look at violations in the same perspective in order to promote consistency in inspections and reporting throughout the State. In order to accomplish this, inspectors must be provided with the proper survey instruments and tools.

Action Steps:

1. Initiation of standardization of all environmental health specialists/sanitarians who inspect retail food establishments.
2. Form a food safety task force composed of state and local food safety regulators, academia, and industry representatives. The purpose of a food safety task force is to create a partnership between regulators, academia and industry in order to keep abreast of current food safety issues, technologies and strategies, and emerging food borne pathogenic organisms, and to promote a harmonious relationship between all involved in food safety for the betterment of public health.

Measures of Success:

1. Number of candidates successfully standardized annually.
2. Establishment of a viable food safety task force.

By December 2004, enhance the implementation of the state drinking water program to ensure safe drinking water from "source to tap."

Customers of public water systems need to be confident that there is an adequate supply of safe, potable water that meets minimum federal and state standards. Operators of public water systems are the first line of defense to providing safe drinking water to the public. Operators need to be trained, certified and have knowledge and understanding of the public health need for drinking water standards. In addition to operators, it is recognized that prevention of contamination of sources of water supplies is more cost effective than clean up of contaminated water. Identifying the potential threat of contamination to water supplies and making this information available to managers of public water systems and local government officials is an essential first step in preventing contamination.

Action Steps:

1. Provide technical assistance and training to small water systems to meet public health requirements and improve compliance.
2. Delineate the boundaries of the hydro-geographic areas that provide source water for public water systems.
3. Develop public awareness of the need to protect sources of underground and surface waters.

Measures of Success:

1. Improved technical, managerial and financial capability of small water systems.
2. Potential sources of contamination in delineated areas identified for all community water systems.
3. Local governments are more aware and involved in source water protection.

Introduction

The public health model of chemical dependency/substance abuse considers three types of causal factors in understanding and intervening with any disease: the agent, the host, and the environment. The agent in this case is alcohol or drugs. The second factor is the host, or individual differences that influence susceptibility to the condition that can be thought of as personal risk factors that increase or decrease one's susceptibility to the disease. The third factor is the environment. Within the public health perspective, the presence or absence of a disease or illness is a result of the interactions of the agent, host, and environment. A hallmark of the public health approach is its emphasis on the importance of considering and addressing all three components of the model. Within the substance abuse field, a public health approach acknowledges that alcohol and drugs are hazardous, which places anyone at risk that consumes them unwisely or beyond moderation; it also recognizes that there are significant individual differences in susceptibility of chemical dependency problems.

The International Certification and Reciprocity Consortium's (IC&RC) defines substance abuse prevention as "a pro-active process of helping individuals, families, and communities to develop the resources needed to develop and maintain healthy lifestyles. Prevention focuses upon the development of innovative and carefully planned interventions that are implemented before the onset of physical, psychological, emotional, or social problems. Prevention is broad based in the sense that it is intended to alleviate a wide range of at-risk behaviors including, but not limited to, alcohol, tobacco, and other drug abuse, crime and delinquency, violence, vandalism, mental health problems, family conflict, parenting problems, stress and burnout, child abuse, learning problems, school failure, school drop outs, teenage pregnancy, depression and suicide."

The Substance Abuse and Mental Health Services Administration categorizes prevention services into six types of activities as described in the following table:

Prevention Strategy	Number of Programs Supported	Explanation
Information Dissemination	55	Provision of information via one-way communication from source to audience.
Prevention Education	45	Learning process achieved through two-way communication.
Alternative Activities	32	Participation of target populations in constructive activities that exclude substance use.
Problem Identification and Referral	3	Identifying at-risk youth and assess education and/or treatment needs.
Community-based Process	10	The community more effectively providing services through coalitions, networking, and related.
Environmental	1	Amending written and unwritten community standards, codes, and attitudes through initiatives.

Intervention is defined as activities that target those beginning to use alcohol or other drugs. Treatment is defined as the means of care of substance abuse disorders through evaluation, detoxification, medication or counseling, or any combination thereof. In Nevada, the American Society of Addiction Medicine Patient Placement Criteria second revision (ASAM PPC-2R) is the standard that has been adopted to determine appropriate placement for clients needing services. It also guides the services provided as the client moves through the treatment system to discharge and aftercare.

In Nevada, State Health Division views substance abuse services as a continuum that begins with prevention for those who have no substance use, progress to intervention for those who have a substance use history, and moves on to treatment for those who are addicted. Each service can be seen as a form of prevention with intervention preventing addiction and treatment preventing disability and death.

Nationally, as well as the State of Nevada, substance abuse and its related problems are among society's most pervasive health and social concerns. Addiction is a chronic, relapsing brain disease that ultimately can be lethal. Substance dependence or addiction involves compulsive use and is usually accompanied by craving, increased tolerance and substantial impairment of health and social functioning. Although it is not possible to predict who will develop problems with substances and under what circumstances, in general, more serious problems develop when people become dependent on alcohol, tobacco, and illicit or prescription drugs.

Research has confirmed that treatment can help end dependence on addictive substances and reduce the consequences of addictive drug use on society. While no single approach for substance abuse and addiction treatment exists, comprehensive and carefully tailored treatment works. Stigma attached to substance abuse increases the severity of the problem. The hiding of substance abuse, for example, can prevent persons from seeking and continuing treatment and from having a productive attitude toward treatment. Compounding the problem is the gap between the available treatment capacity and the number of persons seeking treatment for illicit drug or problem alcohol use.

The process of becoming dependent is complex and is related to a number of factors, including the addictive properties of the substance, family and peer influences, personality, cultural and social factors, and existing psychiatric disorders. Substance abuse is difficult to treat, and for many, more than one attempt is needed, sometimes over a long period of time.

Substance abuse prevention is important because research reveals that age at onset of drinking strongly predicts development of alcohol dependence over the course of the lifespan. About 40 percent of those who start drinking before age 13 develop alcohol dependence at some point in their lives. Of those who start drinking at age 21 years or older, about 10 percent develop alcohol dependence at some point in their lives. Chemical addiction starts early and lasts a lifetime. Persons with a family history of alcoholism have a higher prevalence of lifetime dependence than those without such a history.

Substance abuse treatment is cost-effective in reducing drug use and its associated health and social costs. For example, the average cost for one full year of methadone maintenance treatment is approximately $4,700 per patient, whereas one full year of imprisonment costs approximately $18,400 per person. Conservative estimates state that every dollar invested in addiction treatment programs yields a return of $4 to $7 in reduced drug – related crime, criminal justice costs, and theft alone. When savings related to health care are included, total savings can exceed costs by a ratio of 12 to 1. The savings cannot be outweighed to the individual and society that comes from significant drops in interpersonal conflicts, improvements in workplace productivity, and reductions in substance abuse-related accidents.

A Columbia University study called, “Shoveling Up: The Impact of Substance Abuse on State Budgets” examined the impact of alcohol and drug abuse on state budgets. The methodology consisted of looking behind the traditional budget labels of education, criminal justice, transportation, health care, child welfare, welfare, and mental health to detect just how many taxpayer dollars each state spends on dealing with the financial burden that unprevented and untreated substance abuse and addiction impose on public programs. Overall, the study found that, nationwide, for every dollar spent “shoveling up” the wreckage of substance abuse related problems, <u>four cents</u> are spent on substance abuse prevention and treatment. In Nevada, for every dollar spent “shoveling up,” <u>one cent</u> is spent on substance abuse prevention and treatment.

According to the “Shoveling Up” study, Nevada ranks 36th in total substance abuse spending at $3.61 per person compared to a national average of $11.09 per person. Nevada’s spending on substance abuse prevention and treatment ranks 39th in the nation at 0.116% of the total state budget compared to a national average of 0.485%.

Essentially, the “Shoveling Up” study demonstrates that the vast majority of money is spent cleaning up a problem that could be prevented or dealt with in an earlier stage avoiding alcohol related car wrecks, drug related crime, medical problems with horrendous price tags as well as human suffering, domestic violence, workplace accidents, etc.

<u>National Data</u>

Each year about 100,000 deaths in the U.S. are related to alcohol consumption. Illicit drug abuse and related acquired immunodeficiency syndrome (AIDS) deaths account for at least another 12,000 deaths. In 1995, the economic cost of alcohol and drug abuse was $276 billion. This represents more than $1,000 for every man, woman and child in the U.S. to cover the costs of health care, motor vehicle crashes, crime, lost productivity, and other adverse outcomes of alcohol and drug abuse.

Although there has been a long-term drop in overall use, many people in the U.S. still use illicit drugs. In 1999 the National Household Survey found that there were 14.8 million current users of illicit drugs in the total household population aged 12 years and older, representing 6.7 percent of the total population. Marijuana was the most commonly used illicit drug being used by 75 percent of current illicit users, 57 percent of users abuse marijuana only, 18 percent used marijuana and other illicit drugs, and the remaining 35 percent used an illicit drug other than marijuana in the past month. Therefore, about 43 percent of current illicit drug users in 1999 (an estimated 6.4 million Americans) were current users of illicit drugs other than marijuana or hashish. Of these, 4 million were using psychotherapeutics (pain relievers, tranquilizers, stimulants, and sedatives) non-medically. An estimated 1.5 million Americans were current cocaine users, 900,000 were users of hallucinogens, and 200,000 were heroin users.

Among those 12 years of age 4.1 percent reported current illicit drug use, their drug of choice being inhalants and psychotherapeutics. By age 14, the rate of current illicit drug use was 9.2 percent. The highest rates of illicit drug use was found among persons aged 18 to 20 years with rates of current use between 20 and 21 percent.

Males continue to have a higher rate of current illicit drug use than females at 8.7 percent versus 4.9 percent. Among youths age 12 to 17, the rate of illicit drug use was slightly higher for boys (11.3 percent) than for girls (10.5 percent). Among pregnant women ages 15 to 44, 3.4 percent reported using illicit drugs in the month prior to interview.

Almost half of Americans ages 12 and older reported being current drinkers of alcohol in the 1999 National Household Survey; this translates to an estimated 105 million people. Approximately 20 percent of persons 12 years of age and older participated in binge drinking[1] at least once in the 30 days prior to the survey and 3.9 percent of youth age 12 drink. The highest prevalence of both binge drinking and heavy drinking[2] was observed for youth adults ages 18 to 25, with the peak rate occurring at age 21. The rate of binge drinking was 38.3 percent for youth adults age 18 to 25 years and 45.6 at age 21. Among youths 12 to 17 years of age, an estimated 18.6 percent used alcohol in the month prior to the survey, 10.9 percent were binge drinkers and 2.5 percent were heavy drinkers.

As is the case for illicit drug use, the rate of illicit drug dependence is highly correlated with educational status. Among adults 18 years and older, those who had not completed high school had the highest rate of illicit drug dependence (2.3 percent), while college graduates had the lowest rate of illicit drug dependence (0.6 percent). In contrast to illicit drug dependence, the rate of alcohol dependence is not highly correlated with education status. The rate of alcohol dependence ranges from 4.5 percent among adults who had not completed high school to 3.0 percent among persons who are college graduates.

Nevada Data

According to information from the 2001 Nevada Youth Risk and Behavior Survey (YRBS) for high school students, 80 percent of Nevada youth responding to the survey have used alcohol in their lifetime and 50 percent have used marijuana. In the same study, 33 percent of respondents said they had tried alcohol before age 13. According to information from the 1998 Safe and Drug Free Schools and Communities Survey, by the 8th grade, 57 percent of students in Nevada believe that marijuana is easy to obtain, over 40

[1] Defined as drinking five or more drinks on the same occasion on at least one day in the past 30 days.
[2] Defined as drinking five or more drinks on the same occasion each of five days in the past 30 days. All heavy drinkers are also binge drinkers.

percent of 10th and 12th graders say that cocaine is easy to obtain, and 35 percent of 10th and 12th graders say that methamphetamines are easy to obtain.

The 1999 National Household Survey found that Nevada ranks 1st along with Alaska in reporting past year illicit drug dependence, 1st in reporting past month use of any illicit drug other than marijuana, 3rd in reporting past month use of any illicit drug, 5th in reporting past year use of any illicit drug or alcohol dependence, 8th in reporting past month binge alcohol use, 8th in reporting past month use of cigarettes, and 13th in reporting past month use of marijuana.

Nevada prevalence rates for current use of any illicit drug, ages 12 to 17, rank among the 10 highest in the country. Other Nevada data indicates that in 1999, over 1,800 youth were arrested as runaways, nearly 45% were girls. Additionally, over 25,000 youth under the age of 18 were arrested for juvenile criminal offense. Of these, 13,703 were for property and money crimes associated with substance abuse and drug sale or possession; nearly 50 percent of twelfth graders indicated that they had a friend "who had a drinking or drug problem"; 36 percent of Nevada high school students reported five or more drinks in a row in the past 30 days and 1.4 percent indicated that they were daily users of alcohol; approximately 20 percent of high school students in Nevada sniffed glue, breathed aerosol spray or inhaled paint or spray to get high on at least one occasion. In 1999, nearly 80 percent of all male arrestees, ages 15 to 20 in Clark County tested positive for any drug, nearly 70 percent of female arrestees ages 15 to 20 in Clark County tested positive for any drug.

Of Nevada students who were sexually active in the three months preceding the 1999 YRBS, more than 25% drank alcohol or used drugs before they had sexual intercourse. 1998 data from the Center for Applied Research indicated that nearly one in eight women of childbearing age (15 to 44) residing in Nevada are in need of substance abuse treatment. Of Nevada women participating in the Baby Your Baby program in 2000, 35 percent smoked cigarettes during pregnancy, 17 percent used alcohol, and 13 percent used illicit drugs.

In 2001, 11,187 admissions were recorded for Bureau of Alcohol and Drug Abuse (BADA) funded substance abuse treatment programs, including 1,269 adolescents, up from 1,122 in 2000. Of adolescents, 72 percent were treated for a primary drug problem and 28 percent for a primary alcohol problem. Of adults, 56 percent were treated for a primary drug problem and 44 percent for a primary alcohol problem. Men represented 67 percent of BADA funded treatment admissions, women represented 33 percent. Forty two percent of admission were referred from the Criminal Justice System, 37 percent were referred by either family, friends or were self-referrals, 15 percent were referred from school, work or other, and 6 percent were referred by the mental health system.

Nevada's Substance Abuse Resources and Infrastructure

In state fiscal year 2002, the BADA budget totaled at nearly $13.5 million. This included nearly $10 million in federal support, approximately $3 million in state general funds, and $500,000 in adolescent treatment initiative funding known as Maximus.

For federal fiscal year 2002 – 2003 Nevada will receive nearly $11.3 million from the Federal Substance Abuse Prevention and Treatment (SAPT) block grant. By federal requirement, 20 percent of the block grant is allocated to prevention programming and 70 percent is allocated to treatment programming. These monies are administered through the State of Nevada Health Division and BADA.

BADA funds 54 primary prevention providers and 10 coalitions statewide. Currently, BADA is funding and working with community based coalitions to develop local strategies and a statewide plan to address substance abuse prevention in a coherent and intelligent manner. BADA's coalition strategy also includes using the coalitions to increase provider capacity through a planning process, which includes grant writing and other resource development activities.

In addition to prevention, BADA funds 29 treatment providers with a total of 50 sites statewide. In total, in 2002, it is estimated that BADA will support services for 3,000 detoxification admissions, 3,000 residential treatment admissions, and 5,500 outpatient admissions.

Need for Substance Abuse Services in Nevada

In 1998, the Center for Applied Research at the University of Nevada, Reno, published a study entitled, "Estimating Substance Abuse and Treatment Need in Nevada." As the name implies, the study sought to quantify the need for treatment, as well as the availability of treatment, in Nevada. The study found that approximately 13% of Nevada's population needs treatment at any given time. This information is fairly consistent with that from the *Summary of Findings from the 1999 National Household Survey on Drug Abuse*, published by the Substance Abuse and Mental Health Services Administration, Office of Applied Studies, in 1999. This phone survey was administered nationally to over 70,000 persons using a methodology first tested in 1971. Estimates of need for each state were developed using a scientifically valid methodology that involved calling individuals from all 50 states. Three age groups were surveyed: 12 – 17, 18 – 25, and 26 or older. Presented below are results for Nevada.

Past Month Use Drugs and Alcohol in Nevada, 1999

	Total		**12-17**		**18-25**		**26 or Older**	
Past month use	**%**	**No.**	**%**	**No.** [3]	**%**	**No.**	**%**	**No.**
Any Illicit Drug [4]	9.6	143,000	16.0	23,000	16.6	29,000	7.7	91,000
Marijuana	5.8	86,000	12.3	18,000	21.1	21,000	4.1	47,000
Any Illicit Drug other than Marijuana	4.0	59,000	6.5	9,000	7.4	13,000	3.2	37,000
Binge Alcohol	22.2	331,000	15.1	22,000	35.2	61,000	21.2	248,000

Past Year Dependence Illicit Drugs in Nevada, 1999

	Total		**12-17**		**18-25**		**26 or Older**	
Past Year Dependence	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**
Illicit Drug	2.8	41,000	5.2	8,000	6.1	11,000	2.0	23,000
Illicit Drug or Alcohol	5.5	83,000	8.4	12,000	11.4	20,000	4.3	51,000

[3] 1999 population information is from Claritas Corporation.
[4] Any Illicit Drug is defined as use at least once of marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or any prescription type psychotherapeutic used non-medically.

Using the 13 percent estimate, in 2000 the number of Nevadans needing substance abuse treatment was 200,612. In that same year, 11,280 people, or 5.62% of those in need, accessed treatment in BADA funded programs.

It should be noted that if 200,612 people needed treatment, not all of those would seek treatment. If it were assumed that 10% of those in need would actually seek treatment (a conservative estimate), then 20,061 would have sought treatment in 2000. There were 11,280 admissions to BADA funded programs that year, which means that only 56% of the need was filled (11,280 admissions divided by 20,061 in need who would seek treatment).

That still leaves over 8,700 people (20,061 minus 11,280) in need of treatment and who would access treatment but did not in a BADA funded program. Some unknown number of the 8,700 probably sought help in the private sector. However, those few would primarily include those with insurance and/or financial means to pay for treatment. Even if half of those went to the private sector, that still leaves over 4,300 people in need of service that were not able to access treatment.
This conservative scenario represents thousands of Nevadans who will remain untreated for their addiction problem. When addicted people are untreated, they generally continue to use alcohol and/or other drugs. Untreated addiction costs the state in terms of increased medical costs, criminal justice involvement, employment problems, and human suffering.

Looking back to the first year of the "Estimating Substance Abuse and Treatment Need in the State of Nevada," each year from 1996 and projected to 2000, shows that treatment availability has never reached even 6% of the actual need.

In 2002, BADA developed projections of the treatment need from 2001 through 2010. This study estimated Nevada's population growth and assumed that the penetration rate of BADA funded programs would remain constant. In their calculations, BADA assumed that 13% of the population would be in need of substance abuse treatment at any given time. The results of BADA's calculations show that the projected need will grow from 222,003 in need of treatment in 2001 to 271,038 in 2010. During that same period, projected admissions to BADA funded treatment programs will grow from 11,998 to 14,836 or a 25% increase in supply of publicly funded treatment services.

Information in this section (Substance Use and Abuse) was excerpted in whole or in part from the following information sources:

- *1998 Safe and Drug Free Schools and Communities Survey*, Nevada Department of Education.
- *1999 National Household Survey on Drug Abuse*, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2000.
- *2001 Nevada Youth Risk and Behavior Survey*, Nevada Department of Education.
- *Estimating Substance Abuse and Treatment Need in the State of Nevada*, University of Nevada Reno, Center for Applied Research, 1998.
- Handbook of Alcoholism Treatment Approaches, Effective Alternatives, Second Edition; edited by Hester and Miller.
- *Healthy People 2010*, U.S. Department of Health and Human Services, 2000.
- *National Household Survey on Drug Abuse*, 1994-98, Substance Abuse and Mental Health Services Administration, Office of the Assistant Secretary, 1999.
- *Shoveling Up: The Impact of Substance Abuse on State Budgets*, the National Center on Addiction and Substance Abuse at Columbia University, 2001.
- *Substance Abuse - The Nation's Number One Health Problem,* Schneider Institute for Health Policy, Brandeis University for the Robert Wood Johnson Foundation, 2000.
- *The Need for Substance Abuse Treatment and Prevention in Nevada*, prepared by Kevin Quint for the Governor's Task Force on Tax Reform, February 1, 2002.

By December 31, 2002, the Bureau of Alcohol and Drug Abuse, through program funding, will arrange for the provision of substance abuse primary prevention, intervention, and treatment services throughout Nevada.

Primary prevention programs will provide services to at least 10,000 individuals. Intervention and treatment programs will provide at least 12,000 admissions, including 1,200 adolescents, at a level of service appropriate to the individual's needs. Ten substance abuse coalitions will be funded to continue the Communities that Care planning process.

Action Steps:

1. Request for Applications (RFA) will be issued for services. Treatment providers next RFA for the period July 2003 to June 2006 will be issued in late 2002. Primary prevention and coalition providers will be funded by May 2002 for a three-year project period, July 2002 to June 2005.
2. Subgrants with specific measurable scopes of work will be negotiated and executed.
3. Treatment providers will report information to the Client Data System and to the capacity reporting and waiting list tracking systems.
4. Data, Planning, and Evaluation staff will report monthly progress for each program to the Bureau Chief, Administrative Services Officer, and Treatment Supervisor.
5. Annually monitor the programs for compliance.

Measures of Success:

1. Primary prevention services will be provided to at least 10,000 individuals; intervention and treatment services will be provided to at least 12,000 admissions, including 1,200 adolescents; and ten substance abuse coalitions will complete community needs assessment and community prevention plans.
2. Funded programs will meet all reporting requirements and negotiated scopes of work.
3. All programs are monitored during the calendar year.

By December 31, 2002, the Bureau of Alcohol and Drug Abuse will improve access and admission to primary prevention, intervention, and treatment services, especially for special populations, through the distribution of a resource directory, web enabled outreach activities, and cross training of staff between bureaus to identify and refer clients with substance abuse related health problems.

Existing State Health Division resource listings will be updated annually and widely distributed to help outside organizations make appropriate referrals to publicly funded prevention and treatment programs. This is important because these programs provide services either at no charge or based on a sliding fee scale.

Action Steps:

1. In March 2002, Bureau of Alcohol and Drug Abuse staff will review the recently completed Bureau Communications Plan and review the existing web site to determine how to improve the information it contains.
2. A list of improvements will be generated and assigned by the Health Program Specialist II to existing staff for implementation in cooperation with the Health Division's Office of Information Technology (OIT).
3. The existing prevention and treatment resource listings will be reviewed and updated to include the latest information on programs and services offered by BADA funded prevention and treatment programs.
4. By June 2002, updated listings will be posted on the web site and will also be distributed to all funded programs and other organizations that refer citizens to substance abuse services like the Crisis Call Center and the State RADAR Center at the University of Nevada Reno and its Associate center at the BEST Coalition in Las Vegas. At least 200 copies will be distributed.
5. Bureau staff will work with the Bureaus of Community Health, Family Health Services, and Licensing and Certification to write an article for the Health Division's Spring Newsletter.
6. Staff members from the Bureau of Alcohol and Drug Abuse, Community Health, Family Health Services, and Licensing and Certification will write a memo to Bureau Chief's and Program Managers announcing their availability to speak on substance abuse related topics at staff and community meetings. At least three presentations will occur in 2002.
7. The Bureau's Health Education and Information Officer will produce a brochure on BADA and will distribute existing brochures on other substance abuse prevention and treatment related topics. At least 100 copies of the brochure will be distributed.
8. Bureau staff will serve as a resource to the community by continuing to make referrals for substance abuse prevention, intervention, and treatment services as requested.

Measures of Success:

1. The Bureau of Alcohol and Drug Abuse's website is evaluated and updated by Spring 2002. The number of hits tracked and reported to the Bureau Chief.

2. The brochure is completed and approved by the BADA Advisory Committee. The number of copies distributed is reported to the Bureau Chief.
3. The resource listings are updated by June 2002. The number of copies distributed and who receives the information are reported to the Bureau Chief.
4. The newsletter article is published in the Spring Newsletter. The number of staff presentations is tracked and reported to the Bureau Chief.

Beginning January 2002, through Bureau of Alcohol and Drug Abuse funded outreach programs in each area of the state, the State Health Division will provide education to IV drug users on the risks of HIV and Hepatitis C transmission and on the availability of substance abuse treatment services.

Not only is outreach a requirement of the Substance Abuse Prevention and Treatment Block Grant, it is also important because the sharing of needles leads to the transmission of disease and because injection drug users have admission priority in Health Division funded substance abuse treatment programs. This admission priority is not well known in the community.

Action Steps:

1. Adopt The National Institute of Drug Abuse's (NIDA) Community-Based Outreach Model: A Manual to Reduce the Risk of HIV and Other Blood-borne Infections in Drug Users, 2000, as the standard for outreach activities for BADA funded HIV early intervention providers.
2. Meet with staff from each of the providers to introduce the outreach model and review the services to be provided.
3. By January 2002, negotiate subgrant agreements with the three agencies that provide these services for the Health Division: Hopes Clinic (for Washoe County), Clark County District Health (for Clark County), and the Bureau of Community Health (for rural/frontier counties).
4. Amend the Bureau's program compliance monitor protocol to include indicators that address the use of the model and the provision of education about HIV and Hepatitis C transmission through sharing of needles and on the availability of substance abuse treatment services.
5. Annually monitor the programs for compliance.

Measures of Success:

1. NIDA model adopted by BADA.
2. Subgrants are issued and executed by January 2002.
3. Education and outreach services are provided in all areas of the state that benefit the clients of all 29 Bureau funded treatment programs.

By December 31, 2002, the Bureau of Alcohol and Drug Abuse will prepare statewide needs assessments for both substance abuse prevention and treatment. Additionally, the Bureau of Alcohol and Drug Abuse and Community Health will collaborate to conduct a Hepatitis needs assessment study.

The Bureau of Alcohol and Drug Abuse will perform needs assessments for substance abuse primary prevention and treatment so that funds can be targeted to areas of the greatest need. This effort will include the Hepatitis needs assessment because data on the prevalence of Hepatitis A, B, and C in the substance abusing population in Nevada is unknown. Needs Assessment results will be used to help make funding decisions that will improve access to services as well as focus activities where they will do the most good and improve the quality of services provided.

Action Steps:

1. In March 2002, Bureau of Alcohol and Drug Abuse staff will utilize the family of studies being completed by the University of Nevada Center for Applied Research to create a summary of treatment needs in Nevada.
2. Beginning March 2002, the Bureau's Data, Planning, and Evaluation Team will utilize existing secondary data sources and complete substance abuse prevention needs assessment utilizing the Communities that Care Model as the foundation for the plan.
3. Staff from the Bureaus of Alcohol and Drug Abuse and Community Health will meet in February 2002 to plan for the Hepatitis needs assessment study.
4. Data collection for the study will be completed in early summer 2002 with results presented to the Bureau of Alcohol and Drug Abuse Advisory Committee in late summer.

Measures of Success:

1. The treatment summary of needs document is completed, reviewed and approved by the BADA Advisory Committee, and published during the calendar year.
2. The Substance Abuse Prevention Needs Assessment document is completed, reviewed and approved by the BADA Advisory Committee, and published during the calendar year.
3. Hepatitis needs assessment is completed by early summer 2002 with results published and presented to the Bureau of Alcohol and Drug Abuse Advisory Committee in late summer.

By June 30, 2002, the Northern Nevada HIV/AIDS/STD Planning Council and the Community Planning Group of Southern Nevada will develop and implement a Statewide needs assessment for Nevada.

The Bureau of Community Health in the Health Division will perform needs assessments for HIV/AIDS/STDs so that funds can be targeted to areas of the greatest need. Needs Assessment results will be used to help make funding decisions that will improve access to services as well as focus activities where they will do the most good and improve the quality of services provided.

Action Steps:
1. Ensure needs assessment is based on qualitative and quantitative sources.
2. Select specific strategies to use when gathering input and data from community members.
3. Incorporate information obtained from both consumers of services and providers.
4. Ensure the approach selected is appropriate for each area of Nevada.
5. Obtain data from a variety of sources.
6. Provide an accurate analysis of the information gathered.
7. Ensure important needs are clearly identified and barriers to reaching populations clearly defined.

Measures of Success:
1. Ensure the prevention programs funded in each area of Nevada are modeled after the Comprehensive HIV Prevention Plan
2. Ensure that all HIV prevention programs are designed so that effective qualitative and quantitative analysis and evaluation is possible.

By June 2003, the Bureau of Alcohol and Drug Abuse will replace the existing Client Data System for substance abuse treatment with a new web-enabled system.

In addition to the admission and discharge data currently being collected, the new system will also track outcome data that will fulfill future federal reporting requirements. This new system will be flexible enough to accommodate changes in federal reporting requirements. The new system will be capable of producing aggregate data for use by other bureaus within the limits of federal confidentiality requirements. It will ensure that funded agencies are providing contracted services, will be used to report required data to the federal government, and will assist programs in tracking clients through the treatment system.

Action Steps:

1. Bureau staff will review the 2001 report provided by the federal consultant that completed an assessment of the existing system and her recommendations.
2. The BADA Advisory Committee's Data Workgroup will meet to review the consultant's report and complete a list of the priority items that the new system should include.
3. Bureau staff will review the Workgroup's list and ensure that it includes all required federal and state reporting elements.
4. The Bureau will complete all Department of Information Technology (DoIT) forms necessary to authorize expenditures for the system and to garner assistance from DoIT staff.
5. Bureau and DoIT staff will travel to four to six states to review their systems and determine if there is a web-enabled application suitable to Nevada's needs.
6. If there is such a system, the Bureau's Data, Planning, and Evaluation Team will determine what steps must be taken to acquire the system and once acquired, with assistance from DoIT staff, will modify the system to meet Nevada's needs. If there is not such a system, the Bureau's Data, Planning, and Evaluation Team will work with DoIT to begin the process of developing such a system.
7. The new system will be pilot tested with the providers represented on the Data Workgroup for at least four months before full implementation. The target date for full implementation is July 2003.
8. Bureau staff will conduct training sessions with all funded providers to ensure they understand and can utilize the new system.

Measures of Success:

1. Bureau and DoIT staff identify and procure a compatible data system.
2. The new treatment data system is pilot tested successfully.
3. The new treatment data system is successfully launched as planned by July 2003.
4. Initial federal reporting occurs for the quarter July to August 2003 in October 2003.
5. Data from the system used to report on Bureau Performance Measures for state fiscal years 2003 and 2004.

By December 31, 2002, the State Health Division will provide training, both directly and through funding provided to the University of Nevada Reno, Center for the Application of Substance Abuse Technology to 2,270[1] substance abuse prevention and treatment professionals to enhance the quality of services provided.

Training will cover a range of substance abuse issues from evidence-based primary prevention practice to provision of effective treatment specific to the needs of special populations. Among the strategies to be addressed are the 13 Principles of Effective Treatment developed by the National Institute on Drug Abuse and the American Society of Addiction Medicine's Patient Placement Criteria second revision.

The State Health Division will provide training to private providers on substance abuse grant writing and perinatal substance abuse prevention to include information on fetal alcohol syndrome.

Action Steps:

1. Negotiate subgrant with the University of Nevada Reno, Center for the Application of Substance Abuse Technology. The scope of work will require that at least 90 face to face or compressed video trainings, 17 on line courses, 50 hours of face to face training, 7 days of onsite consultation, 5 days of "Communities that Care" training, 3 days of effective parenting training, 7 days of strengthening families training, and the 5 day Summer Institute are provided.
2. Negotiate subgrant with the University of Nevada Reno, Center for the Application of Substance Abuse Technology to implement a full year's training on the two initiatives: National Institute on Drug Abuse's 13 Principles of Effective Treatment and the American Society of Addiction Medicine's Patient Placement Criteria second revision so that all BADA funded treatment providers participate.
3. CASAT will produce two training calendars and a summer institute brochure as well as support materials necessary to implement the two training initiatives.
4. Bureau of Alcohol and Drug Abuse will train 130 providers and staff on substance abuse grants writing by arranging for the Grantsmanship Center (Los Angeles, California) to train on site in Carson City in February 2002.
5. Bureau of Family Health Services will train 100 primary care providers on Fetal Alcohol Syndrome.

Measures of Success:

1. CASAT provides all training as outlined in their subgrant, and at least 2,270 individuals are trained.
2. Representatives from 29 substance abuse treatment providers participate in the two training initiatives.
3. State Health Division trains at least 130 individuals.

[1] Represents participants in all training, may be a duplicated number.

Beginning during calendar year 2002, the Bureau of Licensure and Certification will improve the quality of services provided in: facility for modified medical detoxification; facility for treatment with narcotics; facility for the treatment of abuse of alcohol or drugs; and halfway houses for alcohol and drug abusers, through regulatory oversight, provider technical assistance, and complaint investigation.

Action Steps:

1. The Bureau of Licensure and Certification will investigate complaints of actual harm within established timeframes for the priority of the complaint.
2. To review and approve plans of corrections submitted by the provider in response to deficiencies cited as a result of a complaint investigation or initial licensure surveys.
3. Participate in provider education on frequently cited deficiencies that could result in actual harm to clients.

Measures of Success:

1. A decrease in the number of substantiated complaints alleging actual harm.
2. A decrease in the number of repeated sanction level deficiencies.

Introduction [1]

The U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that between 25% and 50% of all people with mental health disorders also have a substance abuse disorder. In 1997, this translated into more than 10 million people. The American Association for World Health reports that in 2001, one in three depressed people suffered from some form of substance abuse, 37 percent of alcohol abusers and 53 percent of drug abusers have at least one serious mental illness; and of all people diagnosed with a mental illness, 29 percent abuse either alcohol or drugs. In Nevada, the number of individuals with co-occurring disorders is unknown. In addition to a range of negative consequences (e.g. more frequent hospitalization and higher suicide rates), co-occurring mental health and substance abuse disorders are also associated with poor social functioning, homelessness, violence, arrest, and incarceration.

Historically, there have been a number of barriers to the provision of appropriate treatment for dually-diagnosed individuals. Most notably, there is no single locus of responsibility for people with co-occurring disorders. The mental health and substance abuse treatment systems operate independently of one another, as separate cultures, each with its own treatment philosophies, administrative structures, and funding mechanisms. This lack of coordination means that neither consumers nor providers move easily among service settings.

Substance abuse and mental illness are complex issues requiring multiple strategies and levels of support. While categorical treatment approaches do exist for substance abuse and mental illness, the best available research indicates that the "integrated service model" is most effective. An integrated approach treats both disorders as primary focusing on understanding how both disorders interact with each other.

By creating collaborations between providers of mental health and substance abuse services, the barriers of early intervention and meeting the treatment needs of people with co-occurring mental health and substance abuse disorders can be overcome in a variety of diverse settings, such as housing and social service providers, law enforcement officers, and the criminal justice system. While there is awareness that co-occurring disorders impact multiple state and community systems, models for service integration are just emerging.

The first step in the process of effectively treating people with co-occurring mental health and substance abuse disorders is to develop a treatment model that formally links substance abuse treatment and mental health services. A shared vision and an agreed upon mission by all systems involved is essential to developing a collaborative system:

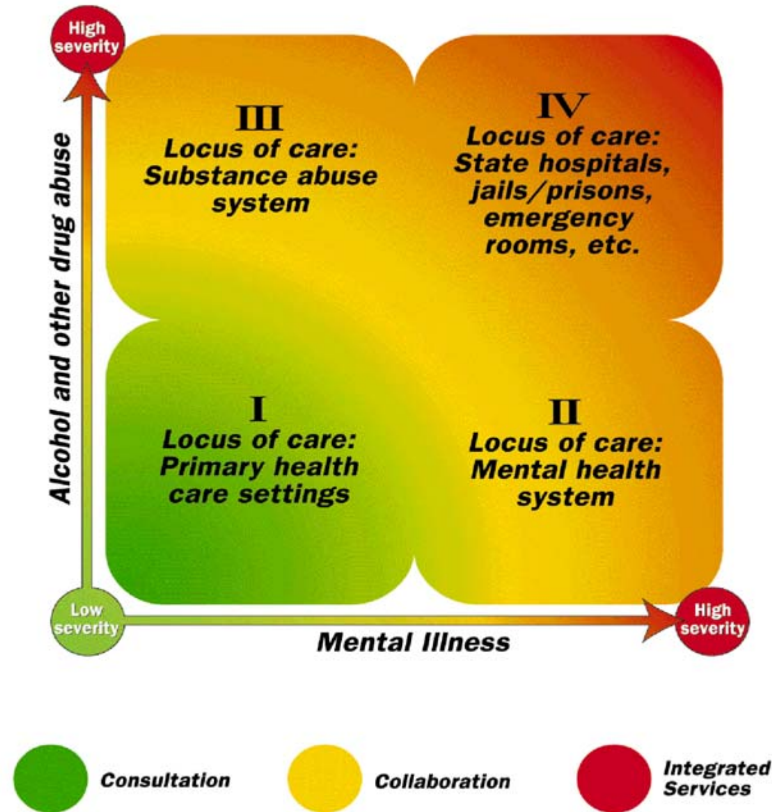
[1] Information from the Substance Abuse section will not be repeated here, please refer to that section for National and Nevada data on substance abuse prevalence.

- Creation of partnerships by getting stakeholders to the table: after identifying the key agencies involved, get their contact people at the table. Participants will likely include community mental health and substance abuse providers, police and corrections administrators, district attorneys, public defenders, local judges, social service providers, and consumer and family advocates.
- Cross-training staff: cross-training staff brings together service providers of varied orientations and allows them to share their different perspectives regarding treatment and supervision as well as maximize their expertise to provide the best treatment possible.
- Consolidation of referral and screening process: by consolidating referral and screening processes, comprehensive substance abuse and mental health assessment and treatment services can be provided simultaneously, thus reducing redundancies in service provision.
- Comprehensive services: homelessness, unemployment, and incarceration are conditions that exacerbate addiction and mental illness. To treat people with co-occurring disorders, providers should address all the varied factors of their lives – this means providing a wide range of comprehensive services from housing to job training.

Because of the federal funding limitation and other issues, the National Association of State Alcohol and Drug Abuse Directors (NASADAD) and the National Association of State Mental Health Program Directors (NASMHPD) collaborated in 2000 and 2001 to develop taxonomy for a discussion of co-occurring disorders. The taxonomy includes a schematic that explains where services are generally provided for individuals with co-occurring disorders. A copy of the figure summarizing this taxonomy is presented in the chart on the following page. As can be seen in the figure, individuals with co-occurring disorders fall into one of four major categories based on the severity of their mental health and substance abuse disorders:

- Category I. Less severe mental disorder/less severe substance disorder, services are provided in primary health care settings.
- Category II. More severe mental disorder/less severe substance disorder, services are provided in the mental health system.
- Category III. Less severe mental disorder/more severe substance disorder, services are provided in the substance abuse treatment system.
- Category IV. More severe mental disorder/more severe substance disorder, services are provided in state hospitals, jails/prisons, emergency rooms, etc.

Individuals at various stages of recovery from mental health and substance abuse disorders may move back and forth among these categories during the course of their disease. Based on the severity of their disorders and the location of their care, the following levels of coordination among the substance abuse, mental health and primary health care systems is recommended to address the needs of individuals with



co-occurring mental heath and substance abuse disorders:

- Level I. Consultation – Those informal relationships among providers that ensure both mental illness and substance abuse problems are addressed, especially with regard to identification, engagement, prevention, and early intervention. An example of such consultation might include a telephone request for information or advice regarding the etiology and clinical course of depression in a person abusing alcohol or drugs.

- Levels II/III. Collaboration – Those more formal relationships among providers that ensure both mental illness and substance abuse problems are included in the treatment regimen. An example of such collaboration might include interagency staffing conferences where representatives of both substance abuse and mental health agencies specifically contribute to the design of a treatment program for individuals with co-occurring disorders and contribute to service delivery.

- Level IV. Integrated Services – Those relationships among mental health and substance abuse providers in which the contributions of professionals in both fields are merged into a single treatment setting and treatment regimen.

The Bureau of Alcohol and Drug Abuse (BADA) and the Division of Mental Health and Developmental Services (MHDS) are using this taxonomy to guide their continuing systems development work and are focusing efforts at Level IV. Among the activities to be supported in 2002 are the search for funding to

support expanded service provision; there is a possibility that the Substance Abuse and Mental Health Services Administration will make such funding available and if that comes to pass, Nevada intends to apply for the support.

The Nevada State Health Division's Bureau of Alcohol and Drug Abuse has been working for a number of years to expand and enhance services for those in the mental health system that also have a substance abuse diagnosis and for those in the substance abuse treatment system that also have a mental health diagnosis.[2] Since the mid 1990s, the Bureau has funded two projects in Reno and Las Vegas and the Division of Mental Health and Developmental Services to provide services for co-occurring disorders. The northern Nevada pilot project provided support for Family Counseling Services to provide substance abuse outpatient services to clients receiving services from MHDS in Reno. The program targets those with severe mental health needs and has been provided on site at the mental health campus in Sparks. In Las Vegas, Community Counseling Center has received funding to support a licensed alcohol and drug abuse counselor to be out-stationed at the MHDS psychiatric hospital. Through funding to MHDS, Rural Clinics has been able to expand services into rural communities that are not served by a community-based agency.

In 2001, efforts to address individuals with a mental health diagnosis in the publicly funded substance abuse treatment system were enhanced by the Bureau's adoption of the latest revision to the American Society of Addiction Placement Criteria second revision (ASAM) because it recognizes the need to better address the mental health needs of individuals in substance abuse treatment. The new criteria recognize the complexity of individual's needs and providers ability to respond by classifying programs as either being capable or enhanced. Capable programs are able to meet these needs within their programs in a variety of ways, including the hiring of dually licensed staff or consultants, but services are provided on site. Enhanced programs meet the needs of their clients through referral arrangements; however, all substance abuse treatment staff need an appropriate level of awareness of mental health issues.[3] Adolescent treatment services supported by the state's Maximus funds are able to provide mental health services because the funds are not similarly restricted.

[2] Formerly referred to as a dual diagnosis, now known as a co-occurring disorder.
[3] Because of limitations on the federal block grant funds received by the Bureau and awarded to treatment programs, these funds can not be used to provide mental health services, they are restricted to substance abuse service provision.

Information in this section (Co-occurring Disorders) was excerpted in whole or in part from the following information sources:

- *Financing and Marketing the New Conceptual Framework for Co-occurring Mental Health and Substance Abuse Disorders*, Final Report of the Joint Task Force, National Association of State Alcohol and Drug Abuse Directors and the National Association of State Mental Health Program Directors, June 1999.a
- *National Dialogue on Co-occurring Mental Health and Substance Abuse Disorder*, National Association of State Alcohol and Drug Abuse Directors and the National Association of State Mental Health Program Directors, March 1999.
- *Improving Services for Individuals at Risk of, or with, Co-occurring Substance Related and Mental Health Disorders,* Conference Report, National Advisory Council, Substance Abuse and Mental Health Services Administration, Updated 1998.
- *Open Minds Open Doors – Prevent and Treat Mental Illness and Substance Abuse!,* American Association for World Health, 2001.

By June 2002, the Bureau of Alcohol and Drug Abuse will assess funded substance abuse treatment providers to determine the need for services and capacity to assist clients with a mental health diagnosis.

This is important because unless both problems are treated the likelihood of a successful recovery from addiction is severely limited. Bureau funded programs provide services based on a sliding fee scale and many of our citizens are not covered by health insurance. This information will be used to try to secure new financial resources to expand the capacity of the publicly supported substance abuse treatment system to treat clients with co-occurring disorders.

Action Steps:

1. The Bureau's treatment supervisor will develop a survey for the 29 funded substance abuse treatment programs. The draft survey will be reviewed by the Bureau's Advisory Committee at the March 2002 meeting.
2. The approved survey will be distributed in April 2002 and results will be compiled in May 2002.
3. A report will be made to the June 2002 meeting of the Advisory Committee on the survey's results.
4. In June 2002, the report will be distributed to the Bureau's partners and the information will be used to update the Bureau's resource listing and web site information.
5. Use the information in the report to help secure new federal funding for services for clients in the publicly supported substance abuse treatment system.

Measures of Success:

1. Survey process is completed in June 2002.
2. Survey report distributed in June 2002.
3. New financial resources are available to provide services within the publicly supported substance abuse treatment system.

Throughout calendar year 2002, the State Health Division will publicize the availability of substance abuse services to at risk populations with co-occurring disorders including the criminal justice population and the homeless though the distribution of literature and resource listings to the agencies and programs that serve these special populations.

Information on the availability of services will be added to the Health Division's existing resource listings and will be widely distributed to help outside organizations make appropriate referrals to publicly funded substance abuse treatment programs. As part of this effort, Health Division staff will support the Department of Correction's reentry initiative and attend the November 2002 conference.

Action Steps:

1. The information collected from the survey previously described will be added to the Bureau of Alcohol and Drug Abuse's resource listing. The updated listing will be distributed.
2. By June 2002, the updated resource information listings will be posted on the Bureau's website.
3. Bureau of Alcohol and Drug Abuse staff will continue to support the efforts of the Department of Corrections to develop a program for inmates reentering the community in order to help assure that those with a co-occurring disorder receive needed substance abuse treatment services.

Measures of Success:

1. Resource listings updated by June 2002. The number of copies distributed and who receives the information are reported to the Bureau Chief.
2. Health Division staff will participate in the Department of Corrections November conference.

During calendar year 2002, the Bureau of Alcohol and Drug Abuse, through its training contract with the University of Nevada Reno, Center for the Application of Substance Abuse Technologies will provide training to substance abuse professionals on mental health issues and to mental health professionals on substance abuse issues, so that at least 2,270 individuals are provided training.

This recommendation is linked to recommendations in the Substance Abuse section of this document. The training is important because it will improve the quality of service provided through the publicly supported substance abuse treatment system to people with co-occurring disorders.

Action Steps:

1. Refer to the applicable recommendations in the Substance Abuse section of this document, specifically page 41.
2. The University of Nevada Reno Center for the Application of Substance Abuse Technologies will provide sessions on co-occurring disorders at the annual 2002 Summer Institute.
3. In fall 2002, a training class for alcohol and drug abuse counselors on most often prescribed medications for common mental health problems will be conducted.

Measures of Success:

1. Refer to the applicable recommendation from the Substance Abuse Section of this document (page 41).
2. Three sessions on topics directly related to co-occurring disorders take place during 2002 and 90 individuals are trained.

By June 2003, the new Client Data System to be developed by the Bureau of Alcohol and Drug Abuse in 2002 will be capable of collecting data regarding services to individuals with co-occurring disorders.

This recommendation is linked to the recommendation found on page 40 in the Substance Abuse section of this document. This information will be used to document the need for services and to seek new funding sources to provide the needed services.

Action Steps:

1. Refer to recommendation in the Substance Abuse section, specifically page 40, of this document.

Measures of Success:

1. Refer to the applicable recommendation from the Substance Abuse section of this document (page 40).
2. New financial resources are available to provide services within the publicly supported substance abuse treatment system.