

Health Priority: Alcohol and Other Substance Use and Addiction

Objective 1: Stigma Reduction (Template)

Long-term (2010) Subcommittee Outcome Objective:

1a: By 2010, 55 percent or more of Wisconsin’s general public will demonstrate a basic understanding of the scientific knowledge about alcohol and other drug use, addiction, addiction treatment, recovery, and alcohol or drug use during pregnancy.

1b: By 2010, 55 percent or more of Wisconsin’s general public will demonstrate positive, non-prejudicial attitudes toward persons with or recovering from alcohol and other drug use disorders.

Long-term outcome objective updated as of: Sept 2004

Wisconsin Baseline	Wisconsin Sources and Year
None, this is a developmental objective.	No data available.

Federal/National Baseline	Federal/National Sources and Year
None, this is a developmental objective.	No data available.

Related USDHHS Healthy People 2010 Objectives			
Chapter	Goal	Objective Number	Objective Statement
26 – Alcohol and Other Drug Abuse	Reduce alcohol and other drug abuse to protect the health, safety, and quality of life for all, especially children.	26-8	(Developmental) Reduce the cost of lost productivity in the workplace due to alcohol and drug use.
		26-13	Reduce the proportion of adults who exceed guidelines for low-risk drinking.
		26-16	Increase the proportion of adolescents who disapprove of substance abuse.
		26-17	Increase the proportion of adolescents who perceive great risk associated with substance abuse.
7- Education and Community-Based Programs	Increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and improve health and quality of life.	7-3	Increase the proportion of college and university students who receive information from their institution on each of the six priority health-risk behavior areas. From the Baseline: (1) injuries, (2) tobacco use, (3) alcohol and illicit drug use,

Related USDHHS Healthy People 2010 Objectives

Chapter	Goal	Objective Number	Objective Statement
			(4) sexual behaviors that cause unintended pregnancies and sexually transmitted diseases, (5) dietary patterns that cause disease, and (6) inadequate physical activities.
		7-5	Increase the proportion of worksites that offer a comprehensive employee health promotion program to their employees.
		7-6	Increase the proportion of employees who participate in employer-sponsored health promotion activities.
		7-7	(Developmental) Increase the proportion of health care organizations that provide patient and family education.
		7-9	(Developmental) Increase the proportion of hospitals and managed care organizations that provide community disease prevention and health promotion activities that address the priority health needs identified by their community.
		7-10	(Developmental) Increase the proportion of Tribal and local health service areas or jurisdictions that have established a community health promotion program that addresses multiple Healthy People 2010 focus areas.
		7-11	Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs.

Related USDHHS Healthy People 2010 Objectives

Chapter	Goal	Objective Number	Objective Statement
		7-12	Increase the proportion of older adults who have participated during the preceding year in at least one organized health promotion activity.
11 – Health Communication	Use communication strategically to improve health.	11-2	(Developmental) Improve the health literacy of persons with inadequate or marginal literacy skills.
		11-3	(Developmental) Increase the proportion of health communication activities that include research and evaluation.
		11-5	(Developmental) Increase the number of centers for excellence that seek to advance the research and practice of health communication.
		11-6	(Developmental) Increase the proportion of persons who report that their health care providers have satisfactory communication skills.

Definitions

Term	Definition
Alcohol and other drug use	<p>Use of alcohol or other legal substances that do not result in significant physical, psychological, or social problems.</p> <p>Use of habit-forming medications for medical reasons and in the prescribed dosage and duration.</p> <p>What substances are included? In general, included substances are those that are considered to be habit-forming and mind-altering such as:</p> <ul style="list-style-type: none"> Alcohol (e.g., beer, wine, hard liquor, coolers) Pain killers (e.g., opiates, heroin, codeine, morphine, oxycodone) Tranquilizers (e.g., muscle relaxants, diazepam, flurazepam) Sedatives (e.g., sleeping pills, barbiturates, methaqualone, chloral hydrate) Stimulants (e.g., cocaine, crack, speed, methamphetamine, ice, amphetamines, benzedrine, phendimetrazine) Hallucinogens (e.g., marijuana, LSD, PCP, psilocybin) Inhalants (e.g., glue, aerosols, solvents, nitrous oxide) <p>U.S. Department of Health and Human Services (1997)</p>

Definitions	
Term	Definition
	Important Note: Throughout this document, the term "substance use" is synonymous with "alcohol and other drug use."
Alcohol and other drug misuse	<p>Use of alcohol or other legal substances that places the individual or others at risk for injury or physical, psychological, or social problems.</p> <p>Use of habit-forming medications in excess of the prescribed dosage and duration.</p> <p>Underage (illicit) use of alcohol.</p> <p>Any illicit use of controlled substances. U.S. Department of Health and Human Services (1997)</p>
Alcohol and other drug abuse	<p>A pattern of physical, psychological, or social problems attributable to the use of alcohol or habit-forming drugs. American Psychiatric Association (1995)</p>
Alcohol and other drug dependence and/or addiction	<p>The individual's use of alcohol or habit-forming drugs has resulted in significant impairment in physical, psychological, or social functioning and meets the diagnostic criteria in the <i>Diagnostic and Statistical Manual</i> of the American Psychiatric Association (1995).</p> <p>Addiction is a primary, chronic, neurobiological disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving (Consensus definition of the American Academy of Pain Management, American Pain Society, and the American Society of Addiction Medicine, 2001).</p>
AODA (Alcohol and Other Drug Abuse)	A term in common usage, particularly in Wisconsin, synonymous with behaviors or circumstances associated with alcohol and other drug-related disorders.
Dementia	Memory, language, emotional, or motor impairment and other cognitive deficits resulting from chronic substance abuse.
Fetal Alcohol Syndrome (FAS)	<p>A specific pattern of physical and mental characteristics seen in some children whose mothers consume large amounts of alcohol during pregnancy. Features of FAS include growth deficiency before and after birth; effects on the central nervous system such as intellectual impairment, developmental delays, and behavioral problems; and changes in facial features such as a flattened midface, a small jaw, and a thin upper lip. U.S. Department of Health and Human Services (1997).</p>
Fetal Alcohol Effects	<p>Fetal alcohol effects (FAE) is used to describe individuals exposed to alcohol in the womb who exhibit only some of the attributes of FAS and do not fulfill the diagnostic criteria for FAS disability without the facial features and/or growth deficiencies. U.S. Department of Health and Human Services (1997).</p>

Definitions	
Term	Definition
Inappropriate Use	According to the American Psychiatric Association (1994), inappropriate use is the use of alcohol or other drugs illegally, in a manner that exceeds the safe or prescribed amount and frequency, or poses a significant health or safety risk to the user or others. Examples of inappropriate use include use during pregnancy, use before driving, underage drinking, drinking while taking certain medications, drinking to escape or cope with problems, illegal drug use, or heavy drinking.
Scientific Knowledge and Understanding	Holding a set of beliefs based upon evidence and a consensus of sound research findings rather than beliefs based upon biases, preconceived notions, political philosophy, personal moral framework, or shared community misconceptions.
Recovery	An individualized process of healing, growth, and changing of one's thinking, attitudes, and behavior as a result of a substance use disorder. Recovery is measured by a decrease in symptoms of illness. Ultimately this means functioning in society without functional impairment due to use of, misuse of, or addiction to alcohol or other drugs.
Stigma	The irrational judging of an individual or group of individuals based upon a collection of beliefs or perceptions that result in negative attitudes toward persons, persons being shunned or discriminated against, or held in lower esteem in terms of their capacity to function as productive members of society.

Rationale:

Wisconsin residents, in general, do not accurately understand the effects of alcohol and other drug abuse, nor treatments for alcohol and other drug use disorders. This is evident, in part, when we look at statistics on drinking, controlled substance arrests, drunk driving crashes, hospital admissions related to alcohol and other drugs, the prevalence of alcohol and other drug use disorders, and treatment admissions. Wisconsin ranks high among states in its consumption of illicit drugs and alcohol. The National Household Survey on Drug Abuse (NHSDA) and the annual Behavior Risk Factor Survey (BRFS) conducted by state health departments under the support of the Centers for Disease Control and Prevention, rank Wisconsin as follows on important risk factors:

- Past month use of marijuana - #18: In 2000, 5.24 percent of persons age 12 and over are estimated to be current users of marijuana.
- Past month use of any illicit drug other than marijuana - #14: In 2000, 2.87 percent of persons age 12 and over are current users of an illicit drug other than marijuana.
- Acute, episodic, or binge drinking rank - #1: In 2001, 26 percent of those surveyed reported having five or more drinks on at least one occasion in the past month. In another survey, the 2000 National Household Survey on Drug Abuse, Wisconsin ranks second highest among states on this indicator.
- Intoxicated driving rank - #2: In 1999, 5 percent of those surveyed reported driving after having too much to drink in the past month. Wisconsin ranks second highest in the nation.
- Heavy or chronic drinking rank - #5: In 1999, 5 percent of those surveyed reported having 60 or more drinks in the past month which puts Wisconsin the fifth highest state on this indicator. (Centers for Disease Control and Prevention, 1999; Wright, D., 2002).

Illicit drug poisoning and dependency deaths in Wisconsin rose 67 percent over a recent 5 year period, from 225 in 1997 to 375 in 2001. AIDS cases associated with injection drug use have risen from 76 in 1998 to 99 in 2001. Illegal drug possession, sale, and manufacturing arrests have increased 18 percent from 21,527 in 1997 to 25,383 in 2001 (Bureau of Mental Health and Substance Abuse Services, 2001).

Illicit drug and alcohol abuse is a significant health, social, public safety, and economic problem in Wisconsin. Each year in Wisconsin there are over 800 documented deaths, 35,000 Driving While Intoxicated (DWI) convictions, 10,000 traffic crashes resulting in 8,000 injuries, and over 90,000 arrests which are attributable to illicit drug and alcohol misuse and addiction. Thirty-two percent of offenders booked into jail and 65 percent of prison admittees have substance-related problems. Each year there are 320 documented instances of domestic abuse related to illicit drug use, and 8,200 related to alcohol abuse or dependence. In 2002, illicit drug and alcohol use and addiction is the fourth leading cause of death in Wisconsin (behind heart disease, cancer, and stroke) and is the fourth leading cause of hospitalization (behind mental illness, heart disease, and cancer) (Wisconsin Alcohol Traffic Facts). For males age 15 to 44, substance abuse is the most prevalent reason for hospitalization. The economic impact in Wisconsin each year attributed to substance abuse is estimated to be well over \$2.6 billion dollars (Bureau of Mental Health and Substance Abuse Services, 2001).

According to a 1997 University of Wisconsin scientific household telephone survey which collected data from 8,524 adults and 1,079 adolescents, 9.8 percent of Wisconsin adults and 8.3 percent of adolescents can be classified as having a substance use disorder; 3.9 percent have an "abuse" disorder, and 5.9 percent have a "dependency" disorder as defined by the Diagnostic and Statistical Manual of the American Psychiatric Association. A primary alcohol use disorder was found among 9.4 percent, and a primary illicit drug use disorder was found among 0.8 percent. Respondents were asked questions about their drug and alcohol use, and eligible respondents were also asked questions pertinent to "substance abuse" and "substance dependency" disorders. The statewide estimate of treatment need, including those with or without health insurance, is 409,733 adults and 40,297 adolescents. This study also found that 6 percent of the adult sample had used an illicit drug in the past 18 months (8 percent of males and 5 percent of females) (Dold, L., 1999).

Using Wisconsin survey and treatment data, just 58,320 persons actually receive public or privately supported treatment each year in Wisconsin. Based upon a prevalence rate of 450,030, only 13 percent of those in need of treatment receive it and some 391,710 do not receive treatment (Bureau of Mental Health and Substance Abuse Services, 2003). The difference between those needing treatment (active cases of addiction) and those who actually receive such professional treatment (patients or clients of addiction treatment services) has been referred to in *Healthy People 2010* as the "treatment gap" for substance abuse services.

Another related problem is fetal alcohol syndrome (FAS). Twenty-four percent of Wisconsin women of childbearing age consume alcohol at a level that puts them at an increased risk of giving birth to a child with FAS. Of the approximately 60,000 births per year, using national statistics, Wisconsin should have approximately 20 to 60 confirmed cases of FAS annually. However, according to the U.S. Centers for Disease Control and Prevention (CDC), 3.5 percent of Wisconsin women drink heavily enough during pregnancy to have their children affected physically and cognitively, but their offspring do not receive the full diagnosis of fetal alcohol syndrome. This number reaches 2,000 per year. Thus, there are many children in Wisconsin who are affected each year with a condition that is totally

preventable. Nationally, FAS has been described as the #1 preventable cause of mental retardation in this country.

A final indicator of problems in this area comes from the health care system. Only 4 percent of physicians consider treatment for an alcohol or substance use disorder to be effective, as compared to 69 percent for diabetes treatment (Mattson, S. & Riley, E., 1997).

This long-term outcome objective is focused on reducing stigma in the general population. Stigma leaves its victims struggling to retain their dignity and self-respect and leads to a sense of invalidation. There are proposed schemas for understanding variations in the construction of stigma and the strength of negative responses of others. The following common features were identified as arousing negative stigmatic responses in others: (1) the outward visibility of the stigmatizing "mark"; (2) the extent to which one is held responsible for the stigma (e.g., congenital, acquired); (3) the perceived threat to an individual or the community; (4) fear and anxiety related to the association with undesirable and negative symbolic meanings (e.g., HIV/AIDS, chemical dependency, mental illness, homelessness); (5) a lack of understanding about one's values, culture, beliefs, and/or perceptions of health care; and (6) a desire for power and/or control over another. In the end, stigma devalues individuals who possess the "mark," and substantially limits opportunities by reducing the humanizing benefits of free and unfettered social intercourse. Frequently stigma is expansive, pervading all corners of one's life space and identity. At other times stigma is "containable," limited, and controllable, in terms of consequences and, more importantly, personal and social identity.

The stigma attached to substance use and addiction compounds the impact of this major health problem. The hiding of substance use disorder, for example, can prevent an individual from initially seeking and continuing in treatment, as well as from having a constructive attitude about treatment. Compounding the problem further, as discussed previously, is the gap between the number of available treatment slots and the number of persons seeking treatment for an alcohol, prescription drug, or illicit drug use disorder.

Within the general public, there is limited understanding of the scientific knowledge about alcohol and other substance use, addiction, and recovery, as well as about substance use during pregnancy. For example, the placental/fetal effects of alcohol and tobacco use during pregnancy still are not fully comprehended by most women of childbearing age. Many potential patients do not seek treatment for substance use problems and addiction. Further, many health care professionals do not refer patients to treatment, and many employers and public policymakers do not provide funding for treatment. The reasons for this are: (1) inaccurate or stigmatized beliefs about who uses what substances; (2) who is at risk for addiction; (3) how addiction and substance use are not the same; (4) racial patterns of substance use and addiction; (5) the effectiveness of addiction treatment; and/or (6) the chronic disease aspects of addiction. Some public health professionals do not understand that substance use and addiction are public health problems that respond to intervention strategies at individual, family, and community levels. *Healthiest Wisconsin 2010* focuses on knowledge and attitude change as a means to improve the public's understanding of the scientific knowledge of alcohol and other substance use, addiction, or recovery, including substance use during pregnancy. The intent is to reduce stigma and broaden public understanding in order to encourage individuals to seek the help they need.

Outcomes:

Short-term Outcome Objectives (2002-2004)

- By 2002, the State Council on Alcohol and Other Drug Abuse (SCAODA) will incorporate implementation of this plan as an Objective in its Four-Year Strategic Plan.

- By 2003, in conjunction with the three Wisconsin Chapters of the Employee Assistance Professionals Association (EAPA), the Department of Health and Family Services (DHFS), Bureau of Mental Health and Substance Abuse Services, will survey employers in Wisconsin to determine the extent to which they have policies and procedures that offer help to employees in the areas of alcohol and other substance use, addiction, recovery, and substance use during pregnancy, and report results to the State Council on Alcohol and Other Drug Abuse.
- By 2003, the DHFS Divisions of Public Health, Disability and Elder Services, and the Bureau of Health Information will identify survey questions to be included in the optional module of the Behavioral Risk Factor Survey.
- By 2004, survey questions addressing public knowledge of alcohol and other substance use, addiction, recovery, and substance use during pregnancy will be included in the annual Behavior Risk Factor Survey.
- By 2004, a work plan that identifies resources will be developed which will include the above-mentioned optional module questions in alternate years through 2010 (e.g., these years would include 2006, 2008, 2010). The DHFS Divisions of Public Health, Health Care Financing, and Disability and Elder Services will develop the work plan.
- By 2004, a culturally competent and linguistically appropriate program for stigma reduction will be designed under the leadership of the Public Health Advisory Committee. The program will address the knowledge and understanding of alcohol and other substance use, addiction, recovery, and substance use during pregnancy. Outcomes will be presented to the State Council on Alcohol and Other Drug Abuse.

Medium-term Outcome Objectives (2005-2007)

- By 2005, the DHFS Divisions of Public Health and Disability and Elder Services will analyze data to assess community knowledge of alcohol and other substance use, addiction, recovery, and substance use during pregnancy.
- By 2005, the DHFS Division of Disability and Elder Services will disseminate the findings of the Behavioral Risk Factor Reports and use the information to guide current and future prevention programs and services.
- By 2005, the DHFS Divisions of Public Health, Disability and Elder Services, and Children and Family Services will collaborate to create a regional and statewide communication plan addressing alcohol use, substance use, substance use during pregnancy, addiction, addiction treatment, and recovery from addiction—including among those dually diagnosed with a substance use disorder and another mental disorder.
- By 2005, the DHFS Divisions of Public Health, Disability and Elder Services, and Children and Family Services will provide training (utilizing distance learning technologies) to state staff to assure competency and capacity to communicate scientific knowledge about alcohol use, substance use, substance use during pregnancy, addiction, addiction treatment, and recovery from addiction—including among those dually diagnosed with a substance use disorder and another mental disorder.
- By 2005, the DHFS Divisions of Public Health, Disability and Elder Services, and Children and Family Services will provide joint training (utilizing distance learning technologies such as the Health Alert Network) to their local counterparts (e.g., county human service agencies, 51.42 Boards, health departments, child welfare agencies, workforce development agencies) to assure adequate resources and staff competency to effectively communicate to the general public scientific knowledge about alcohol and other substance use, addiction, recovery, and substance use during pregnancy.

- By 2005, the DHFS Divisions of Public Health, Disability and Elder Services, and Children and Family Services will provide joint training to their own staff in collaboration with the three Wisconsin chapters of the EAPA, about current scientific knowledge, to assure that such staff have the adequate resources and competency to effectively communicate to the general public scientific knowledge concerning alcohol use, substance use, substance use during pregnancy, addiction, addiction treatment, and recovery from addiction—including among those dually diagnosed with a substance use disorder and another mental disorder.
- By 2006, a public information campaign will be implemented to increase understanding of the basic scientific knowledge about alcohol and other substance use, addiction, recovery, and substance use during pregnancy as a core strategy to reduce stigma; and results will be reported to the State Council on Alcohol and Other Drug Abuse (SCAODA) and the Public Health Advisory Committee (PHAC).
- By 2006, the three Wisconsin Chapters of EAPA will collaborate with SCAODA to increase the number of workplaces that offer AODA employee assistance to their employees.
- By 2006, the DHFS Divisions of Public Health and Disability and Elder Services in conjunction with Wisconsin's colleges, universities, and technical colleges, will incorporate curriculum to assure that graduates of colleges and professional schools (e.g., medicine, nursing, education, social work/social welfare, health education) have appropriate knowledge and competency to address alcohol use, other prescription or illicit drug use, substance use during pregnancy, addiction treatment, and recovery from addiction.
- By 2007, the DHFS Divisions of Public Health and Disability and Elder Services will issue a comprehensive report addressing the impact of alcohol in Wisconsin. The report will include the social, health, and economic impact using the Alcohol Related Death Index developed by the U.S. Centers for Disease Control and Prevention.

Long-term Outcome Objective (2008-2010)

- By 2010, at least 50 percent of the Wisconsin citizens will recognize that addiction is a health problem; that addiction treatment is as effective as treatment for diabetes and hypertension; that recovery is an attainable outcome for those who seek addiction treatment; that substance use during pregnancy increases the risk of birth defects and behavioral disorders in children; and will demonstrate appropriate attitudes and behaviors toward persons with or recovering from alcohol and other drug use disorders

Inputs: *(What we invest – staff, volunteers, time money, technology, equipment, etc.)*

- Funding/staff for survey (This may be accomplished through the design and purchase of a module to add to the existing state survey.)
- Scientific literature
- Survey methodologies
- A specially designed module for the Behavioral Risk Factor Survey (or potentially Family Health Survey) – Department of Health and Family Services
- Public information methodologies
- Social marketing strategies and methodologies
- Technology (including streaming video) to communicate knowledge and information through training
- Oversight (time) and executive level support (e.g., community, state, federal) to assure that surveys/modules are completed in a timely manner and maintain sustainable funding

Outputs: *(What we do-workshops, meetings, product development, and training. Who we reach-community residents, agencies, organizations, elected officials, policy leaders, etc.)*

Activities:

- DHFS and the State Council on Alcohol and Other Drug Abuse will convene a partnership to assure the process and assign accountability in accomplishing this objective.
- DHFS Division of Disability and Elder Services will incorporate the five objectives for the statewide health priority of “Alcohol and Other Substance Use and Addiction” into its strategic business plan.
- Develop a work plan to increase the number of employers who offer help to their employees concerning alcohol and other substance use, addiction, recovery, and substance use during pregnancy.
- Assure that representatives from Wisconsin’s Institutions of Higher Education and Technical Colleges are adequately represented on the State Council on Alcohol and Other Drug Abuse.
- Identify DHFS strategies to appropriately use bioterrorism and state incentive grant resources to support the development of the public health workforce as it pertains to alcohol, substance use, addiction, recovery, and substance use during pregnancy.
- Include the sustained involvement and collaboration of diverse partners.
- Develop training and education modules with state and local partners.
- Develop a social marketing campaign.
- Develop questions to add to the Behavioral Risk Factor Survey optional module.
- Track and assess changes and trends in data.
- Link current surveillance systems to track changes in alcohol, substance use, addiction, recovery, and substance use during pregnancy.
- Develop state policies and procedures for use by local partner agencies to transfer research to practice.
- Identify strategies for areas needing to be improved as it pertains to scientific knowledge in the general population.
- Establish a partnership with Wisconsin Institutions of Higher Education and Technical Colleges.
- Design and conduct the employer survey to assess current capacity in work places.
- Develop a comprehensive plan to evaluate the major products (e.g., social marketing campaign) and processes (e.g., how the partners work together) proposed in this objective.
- Assure that baseline data is developed and tracked.

Participation/Reach:

- Public Policymakers (e.g., state, tribal, local elected officials)
- Community image makers (e.g., print/broadcast media, community leaders)
- Governor’s State Council on Alcohol and Other Drug Abuse (SCAODA)
- State incentive grant and partners
- Local health departments
- Tribal nations
- Wisconsin Public Health Advisory Committee
- Wisconsin Association on Alcohol and Other Drug Abuse (WAAODA)
- Health care providers (e.g., physicians, social workers, nurses, psychologists, nutritionists, health educators)

- Wisconsin Health and Hospital Association (WHHA)
- Wisconsin Alcohol and Drug Treatment Providers Association (WADTPA)
- University of Wisconsin Cooperative Extension
- Center for Urban Population Health
- UW Department of Family Medicine Family Empowerment Network
- Wisconsin Women’s Education Network on Education and Recovery
- Center for Addiction and Behavioral Health Research (CABHR)
- Center for Health Policy and Program Evaluation (CHPPE)
- Wisconsin Association of Collegiate Schools of Nursing
- Wisconsin Medical Society (WMS)
- Wisconsin Society of Addiction Medicine (WisSAM)
- Wisconsin Association of Health Plans
- Wisconsin Public Health Association (WPHA)
- DHFS Division of Public Health and Division of Disability and Elder Services scientific and statistical experts
- Department of Public Instruction
- Brighter Futures Initiative
- Department of Corrections
- Wisconsin County Human Services Association
- Wisconsin Counties Association
- County Human Services Boards (51.42 Boards)
- Wisconsin Certification Board (WCB)
- Community coalitions
- Wisconsin Employee Assistance Professional Association (EAPA) Chapters
- Wisconsin Student Assistance Association
- Wisconsin Clearinghouse
- Wisconsin’s professional schools, colleges, universities and technical colleges (including medicine, clinical psychology, counseling psychology, rehabilitation psychology, school psychology, social work, nursing, health education, nutrition, counseling, child and family studies, marriage and family therapy, dentists and dental hygienists, and allied health professionals)
- Consumers and the general population
- Business and commerce communities
- Students and faculty in primary and secondary educational institutions (K-12)
- Students enrolled in colleges, universities, professional schools and technical colleges
- The criminal justice system
- The juvenile justice system
- Faith communities
- Philanthropic organizations and individuals

Evaluation and Measurement:

It is the intent of this objective to increase understanding among the general public that alcohol and other drug misuse and addiction are health problems, and to reduce stigma and negative attitudes toward persons who suffer from addiction, or who have received addiction treatment. Understanding among the general public about alcohol and other drug abuse is directed toward reduction of stigma. The acquisition of this understanding will result in the following: (1) addiction will be viewed as a

health problem; (2) addiction treatment will be viewed as effective as treatment for diabetes, hypertension, and asthma; and (3) recovery will be viewed as the attainable outcome for those who seek addiction treatment.

There are four milestones that will mark the principal achievements under this objective, namely:

1. Stakeholders in the field of substance abuse prevention and treatment will agree on several fundamental scientific principles about the nature, course, and treatment of substance use disorders that everyone should know and accept.
2. Opinion leader groups in the general population (e.g., civic and business leaders, employers, physicians, judges, teachers, clergy, elected officials, public health officials, and others) will be identified and targeted for dissemination of information on fundamental scientific principles about substance use disorders, addiction treatment, and recovery.
3. Through the use of the media, written communications, presentations, and other forms of social marketing, information will be conveyed to targeted groups on fundamental scientific principles about substance use disorders, addiction treatment and recovery.
4. A set of questions will be developed and included in the Wisconsin annual Behavior Risk Factor Survey to establish a baseline of and measure change in knowledge and attitudes about substance use disorders, addiction treatment, recovery, and alcohol use risks during pregnancy. The anticipated cost will be \$3,000 per question per administration.

It will be critically important to obtain baseline and follow-up data to judge the efficacy of collaborative efforts to increase the awareness of the effectiveness of substance abuse treatment.

The desired short-term objectives include a special focus on the Wisconsin workforce, especially with regard to employers' attitudes toward addiction conditions and treatment.

On a broader level, evaluation and measurement is a significant challenge in Wisconsin. Neither the State of Wisconsin nor national sources adequately have systems in place to track population-level data reflecting attitudes regarding the scientific aspects of substance use and addiction, addiction treatment, and recovery, as well as substance use during pregnancy. It is hoped that the revisions to the Behavior Risk Factor Survey will provide baseline data to measure changes in understanding and reduction of these misperceptions that contribute to public stigma in the general population. The BRFS is currently in modular format and available (with special funding for modules) on a yearly basis. An advantage of the BRFS is that it has the potential to directly ask each participant about his/her own healthcare experience or attitude in the last year, while the Family Health Survey only reaches one person per family to inquire about their families health. Survey experts have determined that use of these two module-based surveys would be much more cost-effective than implementing an entirely new survey, and the results can be analyzed utilizing a number of disease states, population demographics, and risk factors. The Behavior Risk Factor Survey directly interviews each individual and is considered the preferable survey. The survey also is cross-linked to data from a new binge-drinking module noting multiple other risk factors.

Finally, there is significant evidence that use of drugs and alcohol often starts in the teenage years. Attitudes about drugs and tracking of exposure to media campaigns and other health promotion data in this segment of the population will be critically important. The Wisconsin Youth Risk Behavior Survey is produced every two years by the Department of Public Instruction (DPI). The State Council of Alcohol and Other Substance Abuse should actively work with DPI ensure similar questions to those asked of adults are posed to the teenage population. DPI will be asked to include the results in their annual youth survey report.

Crosswalk to Other Health and System Priorities in Healthiest Wisconsin 2010

Access to Primary and Preventive Health Services: Local health departments, clinics, community health centers, hospitals, jails and correctional health facilities, and community agencies are critical in providing to patients and their families current, accurate, and culturally appropriate information and preventive services of alcohol and other substance use, addiction, recovery, and substance use during pregnancy.

Adequate and Appropriate Nutrition: While it is not the purpose of this document to debate all the pros and cons of drinking alcohol, there is mounting evidence that there is no safe level of alcohol use. While it can be said that less alcohol is better than more, there is no clear lower threshold of drinking at which an individual can be completely safe from negative consequences including trouble with police, doctor, boss, accidental injury, or health problems. Even at low levels of drinking there is some degree of risk (U.S. Department of Health and Human Services, 1997; Ding, et.al., 2003). It has been established by the United States Departments of Agriculture and Health and Human Services that heavy drinking puts persons at risk for malnutrition because alcohol contains calories that may substitute for those in nutritious foods. Alcohol alters the storage, mobilization, utilization, and metabolism of several nutrients including thiamin, riboflavin, folate, and vitamins A, C, and B6. Addictive use of other substances may result in a decrease in appetite and interfere with the ability to make healthy food choices. With regard to the maternal and child population, the effects of alcohol on birth outcomes (fetal alcohol effects, fetal alcohol syndrome) are well documented and preventable.

Environmental and Occupational Health Hazards: Drug and alcohol abuse is a major problem in the workplace. It is estimated that 70 percent of current illicit drug users are employed. In addition, approximately 7 percent of Americans employed in full-time work report heavy drinking. Drug-using employees are twice as likely to request time off and 3.6 times more likely to be involved in a workplace accident. Individuals who use alcohol or other drugs in the workplace annually cost American businesses \$81 billion dollars in lost productivity; 86 percent of these costs are attributed to drinking. Employee assistance programs have been developed to assist employees with these problems, at work and/or home, that could lead to depression and substance abuse. Certain employers are mandated by the Department of Transportation to have random drug and alcohol testing programs for their employees. Some examples of these types of jobs include truck drivers, pilots, and railroad engineers.

Existing, Emerging, and Re-emerging Communicable Diseases: The linkages between substance use and abuse and communicable disease are well established. Drug users who share needles and other injection equipment are at higher risk of infection by human immunodeficiency virus (HIV), hepatitis B virus, hepatitis C virus, and other blood-borne pathogens.

High Risk Sexual Behavior: People who use alcohol and other substances may be more likely to engage in high-risk behaviors leading to unintended pregnancy or sexually transmitted diseases. Substance use leads to impaired judgement leading to adverse health outcomes.

Sexual partners are also at risk for HIV, hepatitis B virus, hepatitis C virus, and other sexually transmitted infections. Women who contract HIV infection, hepatitis B, or hepatitis C through their own use or having sex with a drug user may transmit the infection to their newborns. In Wisconsin, 62 percent of children diagnosed with HIV infection were born to mothers that became infected through intravenous drug use or who had a sexual partner who used drugs. Youth Risk Behavior Survey data

shows that in 2001, 28 percent of sexually active high school students in Wisconsin reported that they had used drugs or alcohol before the last time they had sex. Outbreaks of syphilis and other sexually transmitted diseases have been linked to the use of crack cocaine and other substances. In addition to playing a direct role in transmission of infectious disease, drug and alcohol use can also worsen the outcome for persons with a wide variety of infectious diseases. Alcohol use in persons with chronic hepatitis C infection increases the likelihood of developing cirrhosis and liver cancer. The immunosuppressive effects of alcohol and other drugs can increase the severity of bacterial pneumonia and other diseases.

Intentional and Unintentional Injuries and Violence: The use and abuse of alcoholic beverages increases the likelihood of virtually all types of injury. Approximately, one-third of fatally injured drivers and substantial proportions of adult passengers and pedestrians killed in motor vehicle crashes or those who die due to falls, drowning, fires, assaults, and suicides have alcohol concentrations of 0.10 percent or higher. In 2000, 301 people were killed and 6,836 people were injured in alcohol related motor vehicle crashes in Wisconsin (2000 Wisconsin Alcohol Traffic Facts).

Mental Health and Mental Disorders: Substance use and mental disorders are often co-occurring. Increasing self-awareness is a likely outcome among persons being treated or in need of treatment of mental disorder. Alcohol use, in combination with prescription medications, is one area where increased awareness can be beneficial in helping individuals and families understand drug interactions when alcohol is substituted for other medications or taken in combination with medications.

Overweight, Obesity, and Lack of Physical Activity: Alcohol contains calories that can potentially contribute to overweight and obesity. Moderate alcohol drinkers are at greater risk of being overweight or obesity, whereas heavy chronic alcohol drinkers may be predisposed to malnutrition and serious health conditions, such as cirrhosis of the liver, inflammation of the pancreas, and diabetes. Other addictive substances may alter mood and motivation that can influence physical activity patterns.

Community Health Improvement Processes and Plans: Community health improvement plans are important mechanisms in guiding the development of population-based prevention programs and services. Communities need access to accurate and culturally appropriate literature, services, and programs that provide a basis for decision-making. Community health improvement processes that include a broad cross-section of community partners can be instrumental in assessing community strengths and resiliency, and current and emerging problems directly related to alcohol and substance use in the community, and employing effective, evidence-based strategies that can reduce/eliminate barriers to improving health. Alcohol and substance use and addiction are important community assessment parameters given the pervasiveness of this problem.

Coordination of State and Local Public Health System Partnerships: Partnerships between the traditional public health system and the alcohol and substance use and addiction services system have never been more important. The pervasiveness of alcohol and other substance use and addiction and its broad impact on the health of individuals, families, and communities requires multi-system strategies that, at the present time, no single system can achieve alone.

Sufficient, Competent Workforce: Physicians, health care providers, and human service professionals need to routinely ask a few important questions about their patients' alcohol and other substance use. These questions are important in order to assess knowledge and promote accurate understanding of the scientific underpinnings of alcohol and substance use, addiction, recovery, and substance use during

pregnancy. Institutions of higher education, public health, and human service agencies need to place greater emphasis on education and training of the workforce to assure that front-line professionals understand underlying causes. Training and education should also focus on use of both traditional and nontraditional treatment approaches to increase the capacity of providers to tailor treatment regimes to the needs of the individual. Screening for alcohol and substance use and abuse needs to be viewed as a “vital sign” that is routinely assessed (note: this has largely been achieved for tobacco use).

Significant Linkages to Wisconsin’s 12 Essential Public Health Services

Monitor health status to identify community health problems: Wisconsin’s tribes, local health departments, and relevant state agencies, most notably the DHFS Divisions of Disability and Elder Services and Public Health, have critical roles in providing data and information describing the incidence, prevalence, and magnitude of alcohol and other substance use and addictions in the Wisconsin population. It is equally important for these agencies to engage traditional and non-traditional public health system partners in the development of community health improvement plans and otherwise target at-risk and high-risk groups in the community in need of their services.

Educate the public about current and emerging health issues: As a first step, public health system partners and providers need to acquire accurate scientific knowledge and understanding of the pervasiveness of alcohol and other substance use and the dynamics of addiction. Common language and understanding are critical if community partnerships are to be engaged and sustained. Culturally competent approaches to planning, population based-interventions, service delivery, and treatment/recovery is essential.

Promote community partnerships to identify and solve health problems: Alcohol and other substance use and addiction touches nearly all the health and infrastructure priorities set forth in *Healthiest Wisconsin 2010*. Partnerships have never been more important given the pervasiveness of this problem. It is essential that governmental public health and human service agencies/professionals engage and sustain partnerships with traditional and non-traditional partners to address current and emerging problems concerning alcohol and other substance use in the community, as well as develop strategies to strengthen community resiliency as a community protective measure. A critical first step is to assure common understanding and a common language through cross-training and education among the partners. This will increase the assurance that consistent messages are given to individuals, families, and communities. It will increase capacity of the partners to “reach out” to populations that they serve and influence.

Create policies and plans that support individual and community health efforts: Policy making councils, committees, and administrative leaders need to develop, within their strategic business plans, priorities for incorporation of *Healthiest Wisconsin 2010* implementation objectives using collaborative strategies. At this writing, the State Council on Alcohol and Other Drug Abuse has adopted and integrated the 5 long-term outcome objectives for this health priority into its planning process. Additionally, the DHFS Division of Disability and Elder Services has integrated these same five objectives into its DHFS Division strategic planning process and the annual performance objectives for its staff.

Enforce laws and regulations that protect health and insure safety: State and local public health officials and human service professionals need to identify, and be aware of, the laws and regulations that impact and intersect with alcohol and other substance use. As a next step, efforts must be made to reach out to partners who develop and/or enforce such laws (elected officials, corrections officials, law

enforcement, courts) to help them understand the relevance to prevention and public safety and communicate this to the populations that they serve and influence.

Link people to needed health services: Primary care and emergency room physicians, nurses, and other health care providers need to incorporate strategies in which they can routinely screen, assess, intervene, and refer for care, as well as prevent problems associated with use and abuse of alcohol and other substances. Because persons who struggle with abuse and addiction are often outside the traditional health and public health system entry points, it is critical that strategies be developed to reach such persons and population groups. Non-traditional partners and approaches (e.g., taverns, and licensed liquor dispensing establishments) may be considered.

Assure a diverse, adequate, and competent workforce to support the public health system: Medical, nursing, and health professional schools and professional in-service programs need to place greater emphasis on education and training at the individual and population levels concerning screening, recognizing actual and potential links to other health problems, and proven interventions concerning alcohol and other drugs. Training and education should also focus on use of both traditional and nontraditional treatment approaches to increase the capacity of providers to tailor treatment regimes to the needs of the individual. Screening for alcohol and substance use and abuse needs to be viewed as a “vital sign” that is routinely assessed (note: this has largely been achieved for tobacco use).

Evaluate effectiveness, accessibility, and quality of personal and population-based health services: The DHFS needs to continue to provide leadership by assuring that providers adhere to basic standards, periodically measure patient progress and outcomes as required by administrative code HFS 75.03(20), substance abuse program standards, and assure that the workforce is competent to serve the needs of the public. The Wisconsin Certification Board, Inc., certifies the competencies of alcohol and other drug abuse counselors and prevention specialists and assesses the capacity of the alcohol and other drug abuse workforce. State agencies, under the leadership of the DHFS, need to evaluate the competencies of their respective workforces in order to provide comprehensive and effective services and approaches necessary for addressing health and safety issues related to alcohol and other substance use and addiction in the population.

Research is needed to seek new insights and innovative solutions to health problems. Research is also needed that can be translated to best practice in the delivery of service. Institutions of higher education need to continue to enhance and disseminate knowledge concerning evidence-based practice to providers of care. Institutions of higher education are in a key role to conduct research, identify evidence-based practices, and recommend population-based and personal health intervention strategies that work. Collaborative research between state and federal agencies and Wisconsin’s institutions of higher education is an essential step in closing the gap between research and practice. At this writing, monthly teleconferences are occurring between leading national and state researchers and providers to enhance best practices in serving the public.

Assure access to primary health care for all: Screening for alcohol, tobacco, and other substance use and addiction, needs to be viewed as a “vital sign” that is routinely performed in all primary health care settings by primary health care providers.

Foster the understanding and promotion of social and economic conditions that support good health: Leadership and action from all public health system partners are required to carry out this essential

public health service. According to Moss (2002), a multi-tiered systemic strategy is needed to carry out this task. This includes, but is not limited to:

- Assisting with behavioral changes and development of supports, e.g., stress management, smoking cessation, nutritional interventions, and counseling services.
- Increasing opportunities for healthy social interactions and networking, along with strengthening community development.
- Ensuring adequate and secure housing, building upon and extending public health initiatives.
- Promoting legislation needed to improve public health and safety.
- Providing universal comprehensive health and social insurance.

Connection to the Three Overarching Goals of Healthiest Wisconsin 2010

Promoting and Protecting Health For All: It was said by many in medicine at the end of the 19th century that “if you know syphilis, you know medicine”--because of the wide number of organ systems affected by *Treponema palladium*, the effects on behavior of chronic syphilis, and the impacts on families and communities of this devastating illness. It was said by some at the end of the 20th century, that “if you know alcoholism, you know medicine.” Chronic alcohol exposure is toxic to a wide range of organ systems; it can affect mood and behavior as well as memory and thinking; it can produce dementia and states of tolerance from which withdrawal states can include delirium; and it can undermine the fabric of families. It is now clear that from a public health standpoint, addiction is an illness affecting individuals, affecting families, and affecting communities. If the goals and activities of the *Healthiest Wisconsin 2010* plan can increase the age at which youth begin to use alcohol and other drugs, decrease the incidence of substance use in pregnant women, decrease the prevalence of binge drinking in college age and middle age adults, and decrease the incidence and prevalence of cases of alcohol, nicotine and other drug addiction, then the overall health of the citizens of our state will have been significantly improved.

Eliminating Health Disparities: Screening for substance use problems and addiction needs to be done by a variety of public health systems partners, in a variety of settings, for all demographic groups. Prevention strategies need to be culturally specific in order to be maximally effective. Some of the greatest disparities seen in Wisconsin have to do with stigma surrounding substance use and addiction. Most people believe that addiction primarily affects persons of color, especially in urban settings. Prevention, education of the public, screening, and closing the treatment gap are key objectives under this statewide health priority. Such actions by the public health system can assist in reducing stigmatized beliefs about the racial distribution of substance use and addiction, and pessimism about the potential benefits of treatment. According to *Healthiest Wisconsin 2010*, substance abuse affects all racial, cultural, and economic groups. Alcohol is the most commonly used substance, regardless of race or ethnicity, and there are far more persons who smoke cigarettes than persons who use illicit drugs. Usage rates for an array of substances reveal that for adolescents aged 12 to 17 years:

- Whites and Hispanics are more likely than African Americans to use alcohol.
- Whites are more likely than African Americans and Hispanics to use tobacco.
- Whites and Hispanics are more likely than African Americans to use illicit drugs.
- Older adolescents and adults with co-occurring substance abuse and mental health disorders need explicit and appropriate treatment for their disorders. Those who suffer from co-occurring disorders, however, frequently are turned away from treatment designed for one or the other problem but not for both. The population aged 65 years and older faces risks for alcohol-related problems, although this group consumes comparatively low amounts of alcoholic beverages.

Adverse alcohol-drug interaction can put older people in the hospital, since many take multiple medications. In addition, many cases of memory deficits and dementia now are understood to result from alcoholism.

Transforming Wisconsin's Public Health System: Another overarching goal of *Healthiest Wisconsin 2010* is to transform the public health system for our state. The public health system will be improved when substance use and addiction are accepted as important aspects of public health. Occupational health and safety are components of public health; too rarely is the relationship between substance use and addiction and workplace accidents and injuries accepted. Prevention of teenage pregnancy and sexually transmitted disease are well accepted responsibilities of the public health system, but we must understand the connections between alcohol and other substance use and/or intoxication and unprotected, unplanned, or unwanted sexual contact. Suicide is now viewed as a public health matter-- but over 15 percent of suicides occur in alcoholics and over 15 percent of alcoholics have suicide as their cause of death. Tobacco control has been fully embraced by the public health community; it is now accepted that nicotine addiction is the major driving force in the persistence of tobacco use and thus its progression to disability. One of the newest areas to be embraced as a public health problem is the issue of gun violence, which is a significant contributor to premature deaths in young people. Far too often, the economic and cultural aspects of drug trafficking are contributors to gun violence in Wisconsin communities. Substance use and addiction are not simply social problems. They are not simply problems that affect school environments, public housing environments, and the criminal justice system. Addiction is a health problem, and substance use and addiction are clearly public health problems. Addressing addiction as another chronic disease will be a step forward in conceptualizing the condition more accurately and designing interventions that are more likely to be successful.

Key Interventions and/or Strategies Planned:

- Survey employers in Wisconsin to determine the extent to which they have policies and procedures that offer help to employees in the areas of alcohol and other substance use, addiction, recovery, and substance use during pregnancy, and report results to the State Council on Alcohol and Other Drug Abuse.
- Implement the scientific procedures necessary to gain approval of survey questions as an optional module of the BRFSS and develop survey questions to solicit basic knowledge from the public concerning scientific knowledge about alcohol and other substance use, addiction, recovery, and substance use during pregnancy to be included in the annual BRFSS administered by the Bureau of Health Information.
- Develop a culturally competent and linguistically appropriate program, designed under the leadership of the Public Health Advisory Committee, for the general Wisconsin population to assure knowledge and understanding of alcohol and other substance use, addiction, recovery, and substance use during pregnancy. This will be presented to the State Council on Alcohol and Other Drug Abuse.
- Analyze data to assess the prevalence of basic understanding of alcohol and other substance use, addiction, recovery, and substance use during pregnancy and generate subsequent reports from the 2005, 2007, and 2009 BRFSS optional modules, to assess the prevalence of basic understanding of alcohol and other substance use, addiction, recovery, and substance use during pregnancy and use the information to guide current and future prevention programs and services.
- Assure adequate knowledge and competency of staff among state and local level governmental agencies, public, private, nonprofit, and voluntary sectors that they incorporate into their policies and procedures and training efforts scientific knowledge about alcohol use, substance use, and addiction recovery, and substance use during pregnancy.

- By 2005, the DHFS Divisions of Disability and Elder Services, Public Health, and Children and Family Services will incorporate local, regional, and statewide policies and procedures outlining the role the agencies play in communicating to the general public scientific knowledge about alcohol use, substance use, and addiction.
- Implement a work plan to increase the number of workplaces offering help to their employees and information about the science about alcohol and other substance use, addiction, recovery, and substance use during pregnancy.
- Develop a comprehensive report on the burden of alcohol in Wisconsin which would include the parameters of social and economic impact, years of potential life lost, related co-morbid conditions, utilizing the Alcohol Related Death Index developed by the U.S. Centers for Disease Control and Prevention.

References:

American Academy of Pain Medicine, American Pain Society and American Society of Addiction Medicine. *Definitions Related to the Use of Opioids for the Treatment of Pain*. February, 2001.

American Psychiatric Association. (1995). *Diagnostic Criteria from DSM-IV*.

Bureau of Mental Health and Substance Abuse Services. (2001). *Wisconsin Statewide Alcohol and Drug Abuse Indicator Trends*.

Bureau of Mental Health and Substance Abuse Services. (2003). *Wisconsin Substance Abuse Treatment Needs Capacity, and Costs: 2001*.

Centers for Disease Control and Prevention. (1999). *1999 BRFSS Prevalence Report*.

Centers for Disease Control and Prevention. (2002). *Healthy People 2010*, Chapter 26, Objective #26-21.

Center for Substance Abuse Prevention. (2000). *Prevention Works! Prevention Alert*. May 2000: 3(20) at www.health.org/.

Department of Health and Family Services, Division of Health Care Financing, Bureau of Health Information. *Death Records 1999-2000*. Analyses of Death Records by DHFS Division of Public Health, Bureau of Emergency Medical Services and Injury Prevention.

Department of Transportation. (2000). *Wisconsin Alcohol Traffic Facts Book*, Madison, WI.

Dietary Guidelines for Americans. (2000). Fifth Edition. Home and Garden Bulletin No. 232. United States Department of Agriculture, United States Department of Health and Human Services. Washington, D.C.

Ding, Jingzhong and Eigenbrodt, Marsha (2003). *Alcohol Intake and Cerebral Abnormalities on Magnetic Resonance Imaging in a Community-Based Population of Middle-aged Adults*. Johns Hopkins University School of Public Health.

Djong W., and Atkin C.K. (1995). A Review of National PSA Campaigns for Preventing Alcohol-Impaired Driving, 1987-1992. *Journal of Public Health Policy*, 16(1):59-80.

Dold, L. (1999) *Checking the Alcohol and Other Drug Health of Wisconsin Residents, 1997: Final Report*, University of Wisconsin Extension, Wisconsin Survey Research Laboratory.

Epstein, J.A., Botvin, G.J., Diaz, T., and Schinke, S.P. (1995). The Role of Social Factors and Individual Characteristics in Promoting Alcohol Abuse in Inner-City Minority Youths. *Journal of Studies on Alcohol*, Jan: 56(1):39-46.

Institute of Medicine. (1997). *Dispelling the Myths about Addiction: Strategies to Increase Understanding and Strengthen Research*. National Academy Press.

- Marcus, M.T. (2000). An Interdisciplinary Team Model for Substance Abuse Prevention in Communities. *Journal of Professional Nursing*, May-Jun: 16(3)158-68.
- Montagne, M. and Scott, D.M. (1993). Prevention of substance abuse problems: models, factors and processes. *International Journal of Addictions*, Oct: 28(12):1177-208.
- Moss, N. (2000). Socioeconomic disparities in health in the US: an agenda for action. *Social Science & Medicine* 51:1627-1638.
- Shimizu, S. (2000). Consciousness of Drug Abuse Problems and Motivational Intention for Primary Community Intervention Among the Community Residents. *Proceedings National Conference for Nurse Practitioners*. Oct: 35(5)330-40.
- Storti, Susan, A., PhD, RN. (Unpublished Manuscript: April 2003). *An Analysis of the Concept of Stigma*. Addiction Technology Transfer Center of New England. Brown University Center for Alcohol and Addiction Studies, Providence, Rhode Island.
- U.S. Department of Health and Human Services (2000). *Healthy People 2010*, 2nd ed. Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC.:U.S. Government Printing Office. November 2000.
- U.S. Department of Health and Human Services. (1997). *Ninth Special Report to Congress on Alcohol and Health*.
- Wisconsin Department of Transportation. (2003). *2002 Wisconsin Alcohol Traffic Facts*. Wisconsin Department of Transportation. Available online at:
<http://www.dot.wisconsin.gov/safety/motorist/crashfacts/docs/alcohol-section1.pdf>
- Wright, D. (2002). *State Estimates of Substance Use from the 2000 National Household Survey on Drug Abuse: Volume I. Findings*. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.