

**NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM**

**Strategic Plan and Budget to Reduce and  
Ultimately Eliminate Health Disparities**

Prepared for the

**NATIONAL CENTER FOR MINORITY HEALTH AND  
HEALTH DISPARITIES**

NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM  
NIH Comprehensive Strategic Plan and Budget  
To Reduce and Ultimately Eliminate Health Disparities

**TABLE OF CONTENTS**

NIAAA MISSION/VISION STATEMENT	Page 3
THE NEED FOR A STRATEGIC PLAN TO ADDRESS HEALTH DISPARITIES	Page 3
OVERVIEW OF THE STRATEGY FOR ADDRESSING HEALTH DISPARITIES	Page 4
NIAAA SPECIAL EMPHASIS AREAS	Page 5

**Areas of Emphasis**

**Research**

1. EPIDEMIOLOGY OF ALCOHOL-RELATED HEALTH DISPARITIES	Page 6
2. BIOMEDICAL RISK FACTORS CONTRIBUTING TO DISPARITIES IN THE EFFECTS OF ALCOHOL	Page 10
3. ADVERSE PREGNANCY AND INFANT HEALTH OUTCOMES RELATED TO ALCOHOL USE	Page 17
4. PREVENTION INTERVENTIONS	Page 22
5. ALCOHOLISM TREATMENT AND HEALTH SERVICES RESEARCH	Page 26

**Research Capacity**

6. RESEARCH INFRASTRUCTURE: INCREASING THE CAPACITY TO CONDUCT ALCOHOL HEALTH DISPARITIES RESEARCH	Page 33
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**Community Outreach, Information Dissemination, and Public Health Education**

7. INCREASE AT-RISK AND MINORITY ACCESS TO ALCOHOL-RELATED HEALTH MESSAGES	Page 39
8. SCIENCE EDUCATION AND HEALTH PROFESSIONALS EDUCATION INITIATIVE	Page 42

# **NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM**

## **Strategic Plan and Budget to Reduce and Ultimately Eliminate Health Disparities**

### **NIAAA MISSION/VISION STATEMENT**

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) plays a leadership role in the alcohol research community by directing, supporting and conducting biomedical and behavioral research on the causes, consequences, treatment, and prevention of alcoholism and alcohol-related problems. The Institute manages its programs primarily by supporting research grants, contracts and training awards at colleges and universities nationwide. Important to the mission of the National Institute on Alcohol Abuse and Alcoholism is research designed to identify racial and ethnic disparities in the causes and consequences of alcohol-use disorders and to develop treatment and prevention strategies to ameliorate them.

The special emphasis areas, objectives, and proposed action plans that follow comprise an overall strategy designed to make progress towards NIAAA's vision for the year 2025. The goal is a greater understanding of the biological, cultural, environmental, and ethnic factors that contribute to differences in alcohol-related problems. Through this understanding, we will devise more effective prevention and treatment approaches. Ultimately, the health disparities related to the use and abuse of alcohol and to alcoholism will no longer exist.

### **THE NEED FOR A STRATEGIC PLAN TO ADDRESS HEALTH DISPARITIES**

NIAAA-supported research reveals that about one-third of Americans do not drink at all and the majority of those who do drink, do so without adverse consequences. But pressing questions still persist. Why do some people exhibit a pathological appetite for alcohol despite serious physical and social problems? Why are some individuals more vulnerable to the effects of alcohol?

A broad range of epidemiological, psychosocial and biomedical research suggests that some minority groups suffer more severe adverse effects from alcohol than do other populations. Thus, we need to know why problems are distributed unevenly across racial and ethnic groups, with disproportionately greater problems observed in some subpopulations. Moreover, we need to devise effective methods for preventing and treating alcohol abuse and dependence as well as other alcohol-related consequences among these high-risk individuals and populations.

The NIAAA is committed to increasing and strengthening efforts to address health disparities related to our mission of conducting and supporting research on the causes, consequences, treatment, and prevention of alcoholism and alcohol-related problems. Groups of particular concern include African Americans, Hispanics/Latinos, American Indians/Alaska Natives, Asian Americans, and Native Hawaiians and other Pacific Islanders. In addition, we recognize significant variability between subgroups within populations and we are committed to promoting research designed to explore the causes and consequences of these differences.

## **OVERVIEW OF THE STRATEGY FOR ADDRESSING HEALTH DISPARITIES**

While NIAAA's plan to address health disparities includes many specific objectives, activities and approaches, there are five components or themes to the Institute's overall strategy.

**I. Encourage research on health disparities.** This strategy requires actively recruiting established alcohol researchers to address issues related to minority populations in their research. By issuing requests for applications and program announcements we will signal our intention to support additional research on health disparities.

**II. Build the capacity in minority serving institutions (MSIs) to conduct/contribute to alcohol research.** With the support of the NCMHD (formerly ORMH) the Institute has pilot tested several approaches to establishing and improving the alcohol research capacity in MSIs. Workshops, contracts and cooperative agreements, have been used to develop collaborative relationships between scientists/clinicians in MSIs and established alcohol scientists in research-intensive institutions. Lessons learned from this approach warrant continuing to use it to address the issues presented in the emphasis areas and strategic plan

**III. Bring resources to the alcohol research community.** This strategy is linked with I and II. Minority educators, health care professionals, clinicians and investigators are integral to promoting health disparities research. Minority populations, study cohorts and minority intensive settings are also essential resources. The NIAAA will work to assure the availability of these resources to those who conduct research in response to this plan.

**IV. Transfer research knowledge to practice and experiential/clinical knowledge to research.** The NIAAA recognizes the need to assure that minority serving organizations receive the results of alcohol research and that the experience and clinical knowledge of minority serving health care professionals and community members are transferred to those conducting health disparities research.

**V. Build multi-disciplinary, multi-ethnic collaborating teams to address specific research areas.** With encouragement and co-funding from NCMHD, the NIAAA has pilot tested an approach to developing interdisciplinary collaborative teams. Collaborative research on fetal alcohol syndrome in South Africa and the U. S. using this model has proven successful. So this strategy will be used for a number of research and training initiatives in the plan.

## **NIAAA SPECIAL EMPHASIS AREAS**

The NIAAA reaffirms a long-term commitment to addressing Health Disparities consistent with the three broad NIH goals of supporting Research, expanding Research Capacity, and extending Community Outreach. Alcohol Research programs span a wide range of disciplines from molecular biology to the social sciences, and all include health disparities issues. Research Capacity building includes support for research infrastructure at minority institutions and career development for minority investigators; and remains our first priority. Community Outreach efforts include the creation of appropriate alcohol and health materials, information dissemination, education for health professionals, and the solicitation and incorporation of community input regarding alcohol research.

The NIAAA investment in research, research capacity building and community outreach targeted to minority populations has increased almost five-fold since 1989. Our progress is due in large part to a five year and ongoing partnership with the National Center for Minority Health and Health Disparities (NCMHD), NIH. In addition to co-funding initiatives aimed at reducing health disparities, NCMHD actively supports high-risk, high-impact projects designed to increase alcohol research in minority-serving institutions.

New and enhanced efforts in eight broad Areas of Emphasis will make it possible to better identify, understand, and address the factors that contribute to health disparities. The specific Action Plans fall under these Areas of Emphasis.

## **1. AREA OF EMPHASIS: EPIDEMIOLOGY OF ALCOHOL-RELATED HEALTH DISPARITIES**

### Rationale and Priority

Detailed epidemiologic information about patterns of alcohol use and alcohol-related problems among various racial and ethnic minorities is fundamental to effective efforts to address alcohol-related health disparities. Epidemiological research increases understanding of the nature and scope of these disparities and generates hypotheses for subsequent research.

Alcohol consumption is associated with a wide range of adverse health and social consequences, both acute (e.g., traffic deaths, other injuries) and chronic (e.g., alcohol dependence, liver damage, stroke, cancers of the mouth and esophagus). The scope and variety of these problems are attributable to differences in the amount, duration, and patterns of alcohol consumption; differences in genetic vulnerability to particular alcohol-related consequences; and differences in economic, social, and other environmental factors.

Over the past several decades, epidemiologic research has documented substantial differences in patterns of alcohol consumption and differential consequences of that consumption across various racial and ethnic groups. And we have learned that racial, ethnic and cultural disparities in alcohol-related problems vary with the problem under consideration. For example: the alcohol-related death rate (i.e., for all categories of alcohol-related mortality combined) is higher among African Americans than whites (U.S. Alcohol Epidemiologic Data Reference Manual, Volume 5, 1996); cirrhosis death rates are very high among white Americans of Hispanic origin, lower among non-Hispanic African Americans and lower still among non-Hispanic whites (Stinson FS, Grant BF & Dufour MC, 2001); alcohol-related traffic deaths any times more frequent (per 100,000 population) among American Indians or Alaska Natives than among other minority populations (U.S. Department of Health and Human Services. Healthy People 2010, Volume II); the incidence of fetal alcohol syndrome (FAS) appears to be several times higher in some African American and American Indian communities than in the general population (Stratton K, Howe C & Battaglia F, 1996); and recent increases in risky drinking behavior (i.e., drinking and driving) have been reported among Hispanics (Voas R et al, 1998).

Although substantial progress has been made, much remains to be understood if we are to adequately describe differential drinking patterns, their consequences, and associated risk and protective factors by race and ethnicity. Disparities in the sequelae of alcohol consumption may be related to biological and/or environmental factors as well as their complex interactions. Thus, while genetic differences in alcohol metabolism or central nervous system reactivity to alcohol may be important risk factors, so too may differences in access to health care. Research on the interaction of race, ethnicity, culture and

environment as they affect patterns of alcohol consumption may also provide valuable information about the underlying causes of the differential alcohol-related pathology found in some minority populations and subpopulations.

Continuing to develop scientific knowledge about the incidence, prevalence, etiology, and course of alcohol-related problems among minority populations and subpopulations is clearly of central importance to reduction of alcohol-related disparities. The nation's increasing cultural and ethnic diversity adds to the complexity of this task but affords opportunities for significant new insights.

U.S. Department of Health and Human Services. *Healthy People 2010: Volume II. Objectives for Improving Health*. Washington, DC: U.S. Government Printing Office, November 2000, p 26-13.

State trends in alcohol-related mortality, 1979-92. U.S. *Alcohol Epidemiologic Data Reference Manual*. Volume 5, first edition. September 1996.

Stinson FS, Grant BF & Dufour MC, The critical dimension of ethnicity in liver cirrhosis mortality statistics. *Alcoholism: Clin Exp Res*, 25:8: 1181-87, 2001.

Stratton K, Howe C & Battaglia F, eds. *Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment*. Washington, DC: National Academy Press, 1996.

Voas, RB et al, Drinking and Driving in the United States: The 1996 National Roadside Survey, *Accident Analysis & Prevention*, 30:3: 267-275, 1998.

Objective 1.1: To ascertain patterns of alcohol use and the incidence and prevalence of alcohol dependence and abuse and their associated disabilities in the U.S. general population and its racial/ethnic subgroups

Action Plan 1.1: Conduct a nationally representative longitudinal survey of 48,000 individuals, with African-American and Hispanics oversampled, to derive more precise estimates of major alcohol-related variables. This National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) will also include Alaska Natives and Native Hawaiians. (Data will be collected in FY 2001-2002 and again in FY 2004.)

Timeline:      **FY 2002** - Finish Wave 1 interviews  
                      **FY 2003** - Analyze Wave 1 data  
                      **FY 2004** - Release public use tape (Wave 1 data). Begin Wave 2 interviews  
                      **FY 2005** - Analyze Wave 2 data  
                      **FY 2006** - Release public use tape (Wave 2 data)

Estimated Completion Date for Objective: FY 2006

Performance Measures 1.1: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of persons interviewed (target: 48,000)
- 2) Percent of respondents who are African-American (target: 19%)
- 3) Percent of respondents who are Hispanic (target: 19%)

Outcome Measure 1.1: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of publications based on NESARC data which focus on racial/ethnic groups
- 2) Number of publications based on NESARC data which contribute to development of national policy objectives

Objective 1.2: To maintain and expand scientific research about patterns of alcohol consumption and alcohol-related problems within specific minority populations (e.g., African-American, Hispanics, Asian/Pacific Islanders) and subgroups of these populations (e.g., Hispanics of Mexican origin, Asians of Korean origin) where appropriate

Action Plan 1.2: Continue to support existing grants and increase the number of grants for alcohol-related epidemiologic research which are focused on specific minority populations and subgroups of these populations

Timeline:

- FY 2002** - Renew continuing grants and solicit relevant new grant applications.
- FY 2003** - Award 4-6 new or renewal grants.
- FY 2004** - Continue support for 4-6 grants.
- FY 2005** - Continue support for 4-6 grants; award 2 new grants.
- FY 2006** - Continue support for 6-8 grants.

Estimated Completion Date for Objective: FY 2006

Performance Measures 1.2: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of RFAs/PAs in which Division participates
- 2) Number of scientific meetings/workshops in which Division staff participate
- 3) Number of potential grant applicants contacted (directly or through professional/scientific organizations)



Outcome Measure 1.2: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of relevant grant applications received
- 2) Number of grants awarded
- 3) Number of publications resulting from awarded grants

Objective 1.3: To encourage analysis of data on race/ethnicity in alcohol-related epidemiologic research.

Action Plan 1.3: Encourage researchers to analyze data on alcohol use and alcohol-related problems by race and ethnicity whenever the type and amount of data collected permit. Encourage researchers to oversample minority populations whenever appropriate and feasible to facilitate additional analyses by race/ethnicity.

Timeline:     **FY 2002** - Contact current grantees to encourage analyses focussed on race/ethnicity. Advise all new grantees that such analyses are encouraged. Encourage all grantees to publish such analyses if possible. Encourage grant applicants and new grantees to consider oversampling minority populations if possible.

**FY 2003-2006** – Routinely advise grant applicants and new grantees that oversampling of minority populations and analyses focused on race/ethnicity are encouraged.

Estimated Completion Date for Objective: FY 2006

Performance Measures 1.3: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of grantees contacted
- 2) Number of applicants advised

Outcome Measure 1.3: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of grants oversampling minorities
- 2) Number of publications analyzing data by race/ethnicity

## 2. AREA OF EMPHASIS: BIOMEDICAL RISK FACTORS CONTRIBUTING TO DISPARITIES IN THE EFFECTS OF ALCOHOL

### **Rationale and Priority**

**Genetics:** Recent data suggest that ethnic groups exhibit genetic diversity in their biologic sensitivity to alcohol. These potential differences in alcohol sensitivity may result, in part, from genetic differences in metabolic factors and from differences in the central nervous system's reactivity to alcohol. Measurements of the physiological and behavioral outcome of gene expression will yield more refined markers (e.g., specific physiological traits) that indicate genetic ethnic differences in susceptibility to alcoholism.

Minority individuals also may possess genetic traits that either increase or decrease their vulnerability to alcohol dependence (alcoholism). Variations have been observed between the structures and activity levels of the alcohol metabolizing enzymes prevalent among Asian Americans, African Americans, and whites. The flushing reaction, found most frequently among people of Asian ancestry, is one example of a protective trait. Flushing has been linked to variants of genes for enzymes involved in alcohol metabolism. It involves a reddening of the face and neck due to increased blood flow to those areas and can be accompanied by headaches, nausea, and other symptoms. Although flushing appears to deter alcohol use, people with the trait may continue to consume alcohol. Further research is needed to explore these differences.

Evidence also suggests that genetic factors may predispose members of particular minority groups to a number of medical complications related to alcohol dependence (alcoholism), including damage to the liver, heart, pancreas, brain, and central nervous system. Studies are needed to determine whether other factors interact with genetic variations in metabolizing enzymes to produce ethnic differences in rates of organ damage. Likewise, additional research is needed to clarify whether specific genetic, physiologic, and behavioral factors may explain the high risk for alcoholism among certain minority groups and subgroups.

***Alcohol-induced sleep loss and health in Minority populations:*** Sleep is implicated in the maintenance of internal bodily functions through regulation of physiological mechanisms including hormonal, autonomic nervous, and immune systems. Caucasian alcoholics exhibit prominent sleep abnormalities, dysregulation of hormonal activity, elevated sympathetic nervous system activity, and reduced cellular immunity. African American alcoholics, who are at elevated risk for cardiovascular disease, infections, and certain cancers, show even more severe sleep abnormalities than Caucasian alcoholics (Irwin et al., 2000). Studies on the interrelationship among increased sleep abnormalities in alcoholic minority populations and irregularities in hormonal, autonomic nervous, and immune systems could shed light on mechanisms for the increased mortality rate among these groups.

***Toxic Effects of Alcohol on Organ Systems:*** Chronic, heavy alcohol consumption has toxic effects on all body organ systems including the liver, heart, pancreas, and brain.

*Cirrhosis:* Approximately 50 percent of all deaths due to liver cirrhosis, the 10th leading cause of death in the United States, are alcohol related. Although the death rate due to alcohol-related cirrhosis has been dropping in recent years among African American men, it was still greater than that among white males as recently as 1997 (Stinson et al., 2001).

*Cardiomyopathy:* Chronic alcohol abuse can result in alcoholic cardiomyopathy, and there too, disparities appear to exist. One study ascribed the differences in survival rates of African American (71%) and white (92%) cardiomyopathy patients to socioeconomic factors, but another shows that a serum protein variant (transthyretin Ile 122), which is more prevalent in African Americans, is associated with cardiac disease (Afolabi et al, 2000). The role heavy alcohol consumption plays in cardiomyopathy among African Americans is not known. Similarly, the role alcohol plays in inducing hypertension in hypertension-prone African Americans merits further investigation.

*Pancreatitis.* This difficult-to-treat, potentially fatal inflammation of the pancreas is more prevalent in the African American population, both men and women, than in whites. This disparity may be related to dietary factors, type and quantity of alcohol consumed or other factors that need to be determined.

*Interactions with Immune System and immune-mediated organ damage:* Alcohol may trigger an exaggerated immune response to microorganisms that is injurious to the liver and other organs. This effect may be mediated by inappropriate production of inflammatory cytokines and chemokines.

Afolabi I, Hamidi Asl K, Nakamura M, Jacobs P, Hendrie H, Benson MD. *Amyloid* 7:121-125, 2000.

Irwin M, Miller C, Gillin JC, Demodena A, Ehlers CL. *Alcoholism: Clin Exp Res*, 24:1376-1384, 2000.

Stinson FS, Grant BF & Dufour MC, *Alcoholism: Clin Exp Res*, 25: 1181-87, 2001.

### Objective 2.1:

Determine specific genetic factors that may increase risk for alcohol dependence (alcoholism) and organ damage in certain minority groups and, identify their behavioral, neuroendocrine, immune and sleep parameters, neurological, electrophysiologic and other means of expression. Determine how known differences in alcohol-metabolizing enzymes interact with other variables to influence alcohol consumption patterns in minority populations. Determine genetic or genetic-environmental interactions (e.g., dietary factors) that may explain increased vulnerability of some minorities to alcoholic liver

disease (ALD) and other disorders. Identify mechanisms that explain onset and progression in cardiomyopathy and other organ system damage due to alcohol consumption in groups with disparities in survival rates. Develop interventions that address those mechanisms.

Action Plan 2.1: Increase NIAAA support for biomedical research that identifies mechanisms and processes due to alcoholism that cause health disparities in racial and ethnic minority populations. Support the involvement of minority students and scientists through supplements and fellowships.

Timeline:

- FY 2002-** Solicit applications from Health Disparity PA &RFA  
Continue funding of renewal applications
- FY 2003-** Workshop DBR, RFA to result, award 1 new grant  
Continue funding of renewal applications
- FY 2004-** Fund 2 new grants from RFA, Continue funding of  
renewal applications
- FY 2005 -** Continue support for projects
- FY 2006 -** Continue support for projects

Estimated Completion Date for Objective: FY 2006

Performance Measures 2.1:

- 1) Number of Request for Applications (RFAs) in FY 2002 and a Program Announcement (PA) soliciting applicants to address biomedical research objectives in health disparities
- 2) Percentage of NIAAA program administrators proactively recruiting investigators to respond to health disparities solicitations.
- 3) Number of meetings/workshops convened with grantees (every two years) to monitor progress and identify research opportunities.

Outcome Measures 2.1:

- 1) Number of additional high quality applications that address health disparities objectives for basic research.
- 2) Number of basic and clinical publications related to increased susceptibility to ALD, cardiomyopathy, pancreatitis and other adverse medical consequences of alcohol abuse and alcoholism observed in minority populations.

***HIV/AIDS: Perinatal AIDS:*** Given an incidence of AIDS 21-fold higher among African American women and 7-fold higher among Hispanic women compared to whites, there is a significant disparity in exposure rates among minority children (CDCP, *HIV/AIDS Surveillance Report 11*: 1-44, 1999). Alcohol use has well-documented adverse effects on reproductive and immune function in women, and perinatal alcohol exposure

adversely affects the developing immune system. Emerging evidence suggests that maternal alcohol use may exacerbate negative birth outcomes associated with perinatal HIV transmission. Studies are urgently needed to evaluate the prevalence and patterns of alcohol use among pregnant women infected with HIV-1 and the impact of alcohol use on perinatal AIDS transmission, immune status and disease progression in mothers and their children, impact of alcohol use on the efficacy and metabolic complications of HAART usage, the prevalence and patterns of alcohol consumption among pregnant HIV-infected women.

Objectives 2.2: Determine specific pathogenic factors that may increase risk for HIV and organ damage in certain alcohol dependent minority groups. Determine how alcohol interacts with HIV infection in alcohol abusers and pregnant women who abuse alcohol. Determine genetic or genetic-environmental interactions that may explain increased vulnerability of some minorities to HIV and alcoholic liver disease (ALD), hepatitis and other disorders. Identify mechanisms that explain onset and progression of HIV in liver, gut and other organ system damage due to alcohol consumption in groups with disparities in survival rates. Develop interventions that address those mechanisms.

Action Plan 2.2: Increase NIAAA support for biomedical research that identifies mechanisms and processes due to alcoholism that cause health disparities in racial and ethnic minority populations. Encourage research on minority issues related to the interaction between alcohol consumption and HIV/AIDS, with focus on HIV/AIDS-induced organ damage. Support biomedical investigations that examine the association between alcohol dependence and enhanced progression of AIDS-defining opportunistic infections.

Timeline:

- FY 2002** - Solicit applications from HIV PA &RFA. Award 2 applications
- FY 2003** - continue funding of applications
- FY 2004** - continue funding of applications
- FY 2005** - continue funding of applications
- FY 2006** - continue funding of applications

Estimated Completion Date for Objective: FY 2006

Performance Measures 2.2:

- 1) Number of applications including RFAs and Program announcements in FY2002 and FY 2003 to encourage alcohol researchers to pursue these topics.
- 2) Number of investigators in minority serving institutions to participate in HIV/AIDS research studies.

Outcome Measures 2.2:

- 1) Percentage of research information on the viral and host mechanisms

associated with the pathogenesis of HIV/AIDS immune dysfunction and disease progression in diverse populations across the spectrum of age, gender, and national and international settings.

2) Number of basic and clinical research findings/publications related to increased susceptibility to ALD, cardiomyopathy, pancreatitis and other adverse medical consequences of alcohol abuse and alcoholism observed in minority populations who are HIV positive.

Objective 2.3: Alcoholism among American Indians. Identification of causative factors of increased prevalence of alcoholism among American Indian populations. To identify vulnerability and protective alleles, which underlie alcoholism's measured heritability. Identification of these alleles will lead to a better understanding of the mechanisms of vulnerability, individualization of treatment, and definition of gene-environment interactions. In addition, we will continue to have Native Americans actually involved in this research. As in the past, members of the tribes being studied will participate as scientific researchers, research support staff, subject interviewers, pedigree researchers, and other similar positions.

Action Plan 2.3: Alcoholism and its consequences are pervasive in some American Indian populations. For the development of treatment and prevention strategies, it is vital to establish the role and identity of causative factors in such populations. We now have data from three studies: 1) a linkage study in a low-alcoholism tribe; 2) an EEG linkage study in a tribe with a relatively high rate of alcoholism; and 3) the Ten Tribe study, a genetic epidemiological study comparing tribes with low and high rates of alcoholism to identify gene-environment interactions. Studies 1 and 2 are complete; the third study has collected data from five tribes already and is continuing. It is now vitally important to identify variants of candidate genes for alcoholism and other behaviors. Two complementary approaches, whole genome linkage analysis and direct scanning of candidate genes, are being used. Using these methods, we have discovered functionally significant sequence variation within genes expressed in brain and evaluating the role of functional polymorphisms.

We propose to accomplish this by expanding these studies to elucidate the effect of alcohol on gene/environment interactions among American Indian populations by using high throughput 5 prime exonuclease assays (TAQMAN). These genotyping assays are conducted on DNA samples identified by dHPLC screening to contain possible single nucleotide polymorphisms (SNPs). These assays will search for variants in the genes encoding neurotransmitters including dopamine and serotonin transporters, which we have previously linked to specific behavioral disorders including alcoholism in other populations. We will also screen for alcoholic metabolic gene variants associated with individual responses to alcohol, such as the flushing response in Asian populations.

Timeline:      **FY 2002** - Establish project, buy equipment, hire postdocs and predocs, begin using the gene array technique to identify genes responsible for susceptibility for alcoholic liver disease.  
**FY 2003** - Continue basic research in support of project. Submit abstracts to national and international conferences. Prepare manuscripts for submission to peer-reviewed journals.  
**FY 2004** - Continue basic research in support of project. Submit abstracts to national and international conferences. Prepare manuscripts for submission to peer-reviewed journals.  
**FY 2005** - Submit abstracts to national and international conferences and present data and discuss results at invited seminars, lectures, etc. Prepare manuscripts for submission to peer-reviewed journals.  
**FY 2006** - Submit abstracts to national and international conferences and present data and discuss results at invited seminars, lectures, etc. Prepare manuscripts for submission to peer-reviewed journals.

Estimated Completion Date for Objective: FY 2006

Performance Measures 2.3: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) number of significant research highlights related to this project (i.e., enhancement of methods used in studies).
- 2) number of abstracts submitted to meetings, conferences, etc.
- 3) number of invited lectures.
- 4) number of manuscripts submitted to peer-reviewed journals.

Outcome Measures 2.3: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives:

- 1) number of manuscripts accepted into peer-reviewed journals with high impact.
- 2) evidence of long-term beneficial effects on the public health of American Indians.

Objective 2.4 To determine why women, especially African American women, are more prone to alcoholic liver disease than men.

Action Plan 2.4 Alcohol-induced liver diseases are the major cause of morbidity and mortality due to alcoholism worldwide. About 2 million people in the United States have alcohol-induced liver diseases that annually cost \$2 billion in medical expenses. Currently, there is no specific therapy for alcohol-induced liver diseases and the underlying mechanisms are poorly understood. Moreover, women are more prone to alcoholic liver disease than men, and have a higher incidence of alcoholic hepatitis (Norton et al., 1987), exhibit a higher rate of mortality (Burglund, 1984) and a worse

long-term prognosis even if they abstain (Pares et al., 1986). It has also been noted that African American women in the USA appear even more susceptible to alcoholic hepatitis than Caucasian women and have a poor prognosis (Galambos, 1972). This study will compare not only men and women but will compare African-American women to Caucasian women after identification of the genes. To study the underlying mechanisms, gene array, a recently introduced technique, will be used to identify the genes responsible for susceptibility for alcoholic liver disease in women and African American women. DNA probes will be prepared from human alcoholic liver disease samples and hybridized with DNA chips. It is expected that genes involved in the susceptibility to alcoholic liver diseases may thus be identified.

Norton R, et al., *Br. Med. J.* 295, 80-82, 1987.

Pares A., et al., *J. Hepatology*, 2:33-42, 1986.

Galambos JT. *Gastroenterology*, 63:1026-1035, 1972.

Berglund M. *Acta Psych.Scand.* 70: 407-416, 1984.

**Timeline:**

**FY 2002-** Establish project, buy equipment, hire postdoc and predoc, begin using the gene array technique to identify genes responsible for susceptibility for alcoholic liver disease.

**FY 2003-** Continue basic research in support of project. Submit abstracts to national and international conferences. Prepare manuscripts for submission to peer-reviewed journals.

**FY 2004 -** Continue basic research in support of project. Submit abstracts to national and international conferences. Prepare manuscripts for submission to peer-reviewed journals.

**FY 2005 -** Submit abstracts to national and international conferences and present data and discuss results at invited seminars, lectures, etc. Prepare manuscripts for submission to peer-reviewed journals.

**FY 2006 -** Submit abstracts to national and international conferences and present data and discuss results at invited seminars, lectures, etc. Prepare manuscripts for submission to peer-reviewed journals.

**Estimated Completion Date for Objective:** FY 2006

**Performance Measures 2.4:** The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) number of significant research highlights related to this project i.e., enhancement of gene array technique allowing for identification of genes responsible for susceptibility for alcoholic liver disease in women and African American women
- 2) number of abstracts submitted to meetings, conferences, etc.
- 3) number of invited lectures



4) number of manuscript submitted to peer-reviewed journals.

Outcome Measure 2.4: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives:

- 1) Number of manuscripts accepted into peer-reviewed journals with high impact
- 2) Evidence of improved public health of minority women with alcoholic liver disease.

### **3. AREA OF EMPHASIS: ADVERSE PREGNANCY AND INFANT HEALTH OUTCOMES RELATED TO ALCOHOL USE**

#### **Rationale and Priority**

FAS is the leading cause of preventable birth defects in the United States. It produces lifelong neurological, behavioral, and cognitive deficits that prevent normal learning and socialization as well as organ abnormalities, other physical malformations, and growth deficiency. Some minority groups suffer far more FAS than other groups. For example, data from the Centers for Disease Control and Prevention indicate that FAS incidence appears to be seven times higher among African Americans than whites, whereas some American Indian communities have a 30-fold greater incidence of FAS than the general population (Chavez et al., 1989). In addition, the incidence of alcohol-related neurodevelopmental disorders (ARND) in children exposed to alcohol during prenatal development is several times higher than FAS. ARND is the term used to describe the condition caused by maternal alcohol consumption that is characterized by central nervous system abnormalities and/or behavioral and cognitive abnormalities without many of the distinctive physical features of FAS. The problems inherent in making progress toward the understanding of the underlying mechanisms of FAS and ARND and their diagnosis, treatment and prevention are many. Among them are the small numbers of similar age cases in any one site, the need for close collaboration between basic and clinical research scientists, and the need to exchange information quickly from research to practice and to transfer experiential knowledge from practice to research. Since prevalence and therefore the problems of affected children have a significantly higher impact on specific minority groups, it is critical that the involvement of health care providers, scientists, clinicians, educators and psychologists from these communities be involved in the development of new knowledge and the study of promising interventions. NIAAA proposes an expansion of efforts to accomplish this and to address FAS related issues by developing collaborative multi-ethnic multi-disciplinary teams. This approach was found to be exceptionally successful and scientifically productive in a NIAAA/ORMH supported study of FAS conducted in South Africa with numerous co-authored publications and presentations resulting.

In addition, research presented in a recent working group meeting co-sponsored by National Institute of Child Health and Human Development (NICHD), NIAAA and the Office of Rare Diseases revealed that there is a high incidence of prenatal alcohol consumption in minority communities plagued by an increased prevalence of SIDS and stillbirths. The working group included representatives of the American Indian and Alaskan native communities as well as SIDS and alcohol research scientists. The communities assisted in planning a research agenda to address the issues presented.

Chavez GF, Cordero JF & Becerra JE. *JAMA* 261: 205-209, 1989.

Objective 3.1: Develop interventions for the prevention and mitigation of FAS and ARND among specific minority populations. Develop, test and evaluate targeted strategies to prevent or decrease maternal drinking. Develop, test and evaluate interventions to prevent or otherwise mitigate behavioral problems (including alcohol use and abuse) among children and youth who have been diagnosed with FAS and ARND.

Action Plan 3.1: NIAAA will stimulate new research among high-risk minority populations that develops and tests interventions to prevent maternal drinking, FAS and ARND. Additionally, NIAAA will encourage investigators to develop and test interventions to prevent behavioral problems (including alcohol use/abuse) among children diagnosed with FAS and ARND.

Timeline:

**FY2002** - Issue RFA on developing and testing interventions to prevent maternal drinking, alcohol-related birth defects, and behavioral problems among alcohol-impaired children and youth including those from minority populations. Fund 1 or 2 minority supplements to existing FAS grants. Continue to fund present FAS studies among American Indians.

**FY2003** - Award 6-8 new and competing Type 1 and Type 2 applications that responded to the RFA issued in FY 2002 or that were submitted as non-solicited applications. Convene a meeting of new grantees to share ideas for common baseline and follow up questions. Encourage requests for minority supplements to grants that offer appropriate research opportunities for faculty from under-served minority groups. Fund 3 to 4 minority supplements.

**FY2004** - Continue to support the 6-8 projects funded in FY 2003; fund 2 or 3 additional projects from grant applications that were re-submitted as amended applications in light of the RFA review or that were submitted as completely new unsolicited grant applications; issue a new Program Announcement (PA) as a follow up to the RFA issued in FY 2002. Encourage poster presentations and articles on the effectiveness of preventive interventions from investigators who were funded before FY 2002.

**FY2005** - Continue support for projects funded in FY 2004 and fund 1 or 2 new projects on this topic. Where appropriate, encourage requests for minority supplements to the studies funded in FY 2004 and 2005. Fund 2 new minority supplements.

**FY2006** - Continue funding for projects that initially requested more years of support. Encourage poster presentations and articles that summarize baseline and follow up data collected so far across the various studies. Convene a meeting of all NIAAA-funded investigators who have conducted preventive intervention research on FAS and ARND among minority and non-minority populations to determine what strategies work

best for whom. Fund at least 2 or 3 new intervention studies among minority populations.

Estimated Completion Date for Objective: FY 2008

Performance Measures 3.1:

- 1) Number of Requests for Applications (RFAs) and Program Announcements (PA) to stimulate new research among minority populations concerning the prevention of maternal drinking, consequent FAS and ARND, and behavioral problems (including alcohol abuse) among children with alcohol-related birth defects.
- 2) Number of meetings/workshops/technical assistance programs convened directed to increasing research in the area health disparities in FAS and ARND.

Outcome Measures 3.1:

- 1) Number of new grants (and supplements) funded for research on health disparities in FAS and ARND.
- 2) Number of new supplements funded for research on health disparities in FAS and ARND.
- 3) Number and types of prevention strategies being tested or retested.
- 4) Number of publications in peer reviewed journals resulting from research supported by NIAAA.

Objective 3.2: Determine biological, genetic, and environmental risk factors that lead to the disproportionately high incidence of FAS and other adverse pregnancy outcomes due to alcohol consumption in African American, Alaska Native, and American Indian populations. Since some groups of individuals in minority communities suffer a disproportionate impact of prenatal alcohol effects while in other communities drinking has not resulted in the same devastation, conduct research on the genetics and metabolism of the mother child unit in determining susceptibility to fetal injury, and the influence of nutrition and other environmental factors on vulnerability. Determine potential therapies for preventing fetal injury. Determine the extent to which high rates of alcohol consumption during pregnancy contribute to the high incidence of stillbirths, infant mortality and SIDS among some minority groups. Determine if there is related pathology between FAS, stillbirths, and other adverse pregnancy outcomes.

Action Plan 3.2A: Develop a multi-site initiative involving teams of alcohol research scientists collaborating with minority communities, minority scientists, and scientists in minority serving institutions. Increase research funding for studies that involve minority investigators and clinicians in determining risk factors for adverse pregnancy outcomes.

Action Plan 3:2B: Identify factors responsible for differential susceptibility to FAS and other adverse pregnancy outcomes due to alcohol consumption. Evaluate alcohol-metabolizing enzyme variants among minority populations for their capacity to eliminate alcohol from the body. Identify environmental factors that predict alcohol-related adverse birth outcomes. Collaborate with the NICHD in developing methods for assessing alcohol's involvement as a major risk factor in SIDS and stillbirths.

Timeline:     **FY2002** - Include topic in an RFA on health disparities. Encourage applications addressing the research needs identified in the working group meeting held in FY 2001. Supplement existing grants and build collaborations and partnerships to support the conduct of this research.  
                  **FY2003** - Support competitive grants resulting from the RFA and supplement existing grants to develop preliminary data in cooperation with community members. Hold meetings with community members to continue to address their concerns and determine their willingness to continue cooperation in this sensitive area.  
                  **FY2004** - Continue to collect maternal, delivery, pathology and postnatal data to determine risk factors.  
                  **FY2005** - Add an education and intervention component to transfer research findings to practice and to communities at risk.  
                  **FY2006** - Assess progress in meeting with collaborators; continue to support projects, assure publication of findings.

Estimated Completion Date for Objective: FY 2007

Performance Measures 3.2:

- 1) Number of NIAAA and NICHD jointly supported projects to evaluate the role of alcohol consumption in the occurrence of stillbirths, infant mortality and SIDS.
- 2) Number of collaborative studies underway to study FAS using cohorts of national and international families with similar aged children.

Outcome Measures 3.2:

- 1) Number of publications and meeting presentations assessing whether alcohol consumption is a major risk factor for stillbirths, infant mortality, or SIDS, as well as FAS and ARND.
- 2) Number of communities with demonstrated benefits from the outcome of studies as measured by continued approval and involvement in working group meetings.

Objective 3.3: Form collaborative multi-disciplinary teams involving minority clinicians and psychologists to determine core deficits in specific age groups of minority children

affected by FAS/ARND. Evaluate behavioral therapies designed to mitigate the effects of FAS/ARND in minority children and improve interventions which augment educational abilities.

Action Plan 3.3: Scientists with published research data demonstrating deficits in children will be convened to develop a document summarizing and comparing existing knowledge. Develop cohorts of same-aged affected national and international minority children and comparison controls. Expand studies of the specific neurobehavioral deficits of FAS/ARND and work collaboratively with educators to determine methods to enhance the educability of affected minority children. Work with educators to develop curricular and educational materials for psychologists to communicate effectively with health care professionals in addressing the needs of the affected child.

Timeline:     **FY2002** - Develop and release an RFA for a multi-site collaborative initiative dealing with health disparities in FAS and ARND. Supplement existing grants and add minority supplements.  
                  **FY2003** - Support highly competitive collaborative research projects and actively recruit the participation of minority scientists and clinicians in the collaborative teams.  
                  **FY2004** - Convene collaborating teams for a review of progress, add necessary research components to the initiative to achieve goals and make maximum use of opportunities developed.  
                  **FY2005** - Support additional research projects resulting from improved state of the art.  
                  **FY2006** - Continue to support research and convene conference to assess progress and adjust research agenda.

Estimated Completion Date for Objective: FY 2007

Performance Measures 3.3:

- 1) Number of projects supported with the advice and involvement of the Department of Education's Office of Special Education and the NICHD designed to identify research-based strategies/ interventions for cognitive deficits and learning problems displayed by children with FAS or ARND.
- 2) Number of presentations of research results and evidence that findings are transferred from research to practice.

Outcome Measures 3.3:

- 1) Number of publications in peer reviewed journals.
- 2) Evidence of support from FAS advocacy groups

#### 4. AREA OF EMPHASIS: PREVENTION INTERVENTIONS

##### Rationale and Priority

Research on the general population has identified a number of effective or promising strategies for preventing alcohol abuse and its consequences. These include implementation of public policies (Hingson et al. 2000); multi-component community, school, and family-based programs (Holder et al. 2000; Perry et al. 1996); brief interventions for high-risk college students (Marlatt et al. 1995); a variety of communication/media strategies; and selected worksite and primary care interventions. Although these science-based prevention approaches have proved to be effective in various studies of U.S. populations, few of these strategies have been comprehensively evaluated in minority communities and minority subpopulations. Furthermore, while some of these approaches have been shown to be effective among populations that include members of minority groups, it is unclear whether interventions specifically designed for particular minority groups would be even more beneficial than those designed to prevent alcohol problems in the general population. In addition, it is important to study whether and how key components of prevention strategies (such as community activation techniques) and critical precursors of behavioral change (such as alcohol expectancies or beliefs about the benefits and hazards of drinking) vary across racial/ethnic groups. Alcohol-focused prevention research has also developed effective environmental strategies that are now being re-tested in minority urban neighborhoods. For example, community-based interventions have sought to alter zoning laws as a means of reducing alcohol-outlet densities and attendant problems in poor ethnic minority communities. However, further study of such environmental problems and effective solutions is necessary.

Hingson R, Heeren T, & Winter M *Injury Prevention* 6: 109-114, 2000.

Holder Harold et al. *JAMA* 284: 2341-2347, 2000.

Perry CL, Williams CL, et al., *Amer Jour Public Health* 86 (7): 956-965, 1996.

Marlatt GA, Baer JS & Larimer M, In Gayle M. Boyd, Jan Howard, and Robert A. Zucker (eds.): *Alcohol Problems Among Adolescents: Current Directions in Prevention Research*, Hillsdale, New Jersey: Erlbaum Associates, pp. 47-172, 1995

Objectives 4.1 Improve our ability to prevent problems due to alcohol abuse and alcoholism in racial/ethnic minority communities. Continue to develop and expand strategic, coordinated, methodological and conceptual approaches for evaluating prevention interventions in minority groups and subgroups. Develop research initiatives that address gaps in the current state of basic behavioral and applied knowledge on alcohol-focused prevention strategies effective for specified minority populations.

Ascertain whether prevention interventions that have been proven effective in the general population are also effective for minority groups and subgroups. Develop and evaluate culturally sensitive prevention interventions for specific minority populations and for problems where minority populations are at high risk. Develop culturally relevant interventions for primary and secondary prevention of HIV/AIDS infection among alcohol abusers in ethnic minority communities.

Action Plan 4.1: Review and synthesize existing data on effectiveness of prevention interventions among minority populations, and based on the ongoing literature review, support future secondary analyses of data sets that contain minority-focused outcomes but have not yet been analyzed in terms of minority group.

Timeline:     **FY 2002**- Complete ongoing literature review and review final report.  
                  **FY 2003**- Award 3-6 new secondary analysis applications  
                  **FY 2004** - Continue support for 3-6 new projects  
                  **FY 2005** - Continue support for projects -initiate 2 new secondary analysis projects  
                  **FY 2006** - Review findings from projects

Estimated Completion Date for Objective: FY 2007

Performance Measures 4.1: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Number of meetings/workshops/technical assistance programs convened directed to increasing research on the effectiveness of alcohol prevention in minority communities, including the identification of data sets for future ethnic-group analyses, and suggest future secondary analyses of existing research data sets.
- 2) Number of Requests for Applications (RFAs) and Program Announcements (PAs) to further characterize the effects and effectiveness of prevention programs in minority populations and/or the effects of laws and policy decisions on minority populations.

Outcome Measures 4.1: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) The number of new secondary analysis research grant applications submitted and the number funded.
- 2) The number of journal articles, book chapters, reports, monographs and other documents published as a result of the findings.
- 3) Disseminate scientific findings through peer reviewed journals and NIAAA publications.



Action Plan 4.2: Evaluate the current knowledge base and support future pre-intervention research to determine those aspects of minority drinking environments, patterns, and problems as well as expectancies, risk perceptions, community norms, values, and unique cultural factors that are likely to influence the outcomes of preventive intervention efforts. Explore the ways that various prevention messages, information strategies and emerging technologies can be tailored to address those social and cultural factors that increase risk for specific racial/ethnic minority groups.

Timeline:     **FY 2002** - Provide continuation support for 8 ongoing grants and solicit new applications through a program announcement.  
                  **FY 2003** - Award 1 renewal and 4-6 new applications in FY2003.  
                  **FY 2004** - Award support for 6-12 renewal and new studies.  
                  **FY 2005** - Continue support for 10-12 renewal and new projects on this topic.  
                  **FY 2006** - Continue support for 10-12 projects.

Estimated Completion Date for Objective: FY 2008

Performance Measures 4.2: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Number of meetings/workshops/technical assistance programs convened directed toward increasing research on the effectiveness of alcohol prevention in minority communities.
- 2) Number of Requests for Applications (RFAs) and Program Announcements (PAs) to encourage new pre-intervention research on specific racial/ethnic minorities' alcohol expectancies, risk perceptions, and unique cultural factors, and the social environments in which alcohol is consumed to design effective prevention programs.

Outcome Measures 4.2 The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of new research grant applications submitted and number funded as the result of programmatic efforts including RFAs and PAs.
- 2) Number of journal articles, book chapters, reports, monographs and other documents published on the topic of this action plan as a result of research supported by the NIAAA.

Action Plan 4.3: Test the efficacy and effectiveness of prevention interventions including laws and policies, culturally sensitive family-based interventions, multicomponent community interventions, and preventive interventions for specific minority groups with increasing risk of HIV/AIDS infection.

Timeline:        **FY 2002** - Provide continued support for 17 existing grants and solicit applications for new studies.  
                         **FY 2003** - Award 14 renewal and 4-8 new applications in  
                         **FY 2004** - Continue support 6-8 ongoing projects; initiate 4-8 new applications.  
                         **FY 2005** - Continue support for projects; initiate 4-8 new studies.  
                         **FY 2006** - Continue support for 10 projects.

Estimated Completion Date for Objective: FY 2008

Performance Measures 4.3: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Number of meetings/workshops or technical assistance programs convened that were directed toward encouraging research on the effectiveness of various alcohol prevention strategies among individual of minority communities.
- 2) Number of Requests for Applications (RFAs) and Program Announcements (PAs) to further characterize the effects and effectiveness of prevention programs in minority populations and/or the effects of laws and policy decisions on minority populations.

Outcome Measures 4.3: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) The number of journal articles, book chapters, reports, monographs, and other documents that are published relevant to this action plan under support from NIAAA funding during each fiscal year.
- 2) The number of scientific conference presentations, symposia, and other dissemination activities that are conducted as a result of this action plan.
- 3) The number and type of publications disseminated by NIAAA relevant to this action plan.

## **5. AREA OF EMPHASIS: ALCOHOLISM TREATMENT AND HEALTH SERVICES RESEARCH**

### Rationale and Priority

Because the categories that represent ethnicity are necessarily broad, they categorize individuals of diverse culture, heritage, language, origin, phenotype, and social and geographic context into single groups (Castro et al., 1999). An important, but untested, assumption has been that treatments tailored to the health needs of minority populations will be more effective than generic treatments. While Project MATCH, a large NIAAA-sponsored clinical trial, found no differences in treatment outcomes among minority participants as compared to whites, other research studies have been generally inadequate to determine whether subjects in particular ethnic groups are more likely to have better or poorer outcomes than subjects drawn from the majority population. Studies of the social and cultural factors that may influence motivation for treatment, adherence to treatment, and improved treatment outcomes among minority populations are essential to advance understanding in this area. Research is needed to validate and extend knowledge about alcoholism treatment gained in studies with non-minority samples to minority populations.

While some culturally sensitive treatment programs have been developed for Hispanics/Latinos, they are often aimed at specific subcultures within the larger Hispanic/Latino population and have not undergone evaluation. There is no currently available research evidence to suggest that minority populations respond differently to treatment. Success rates among minority patients in programs aimed at the general population are equal to those of whites in the same programs. However, culturally specific modifications of existing services have a theoretical and intuitive basis and may increase positive outcomes and, thus, merit more systematic and diverse evaluation than has previously been conducted.

Majority and minority population differences with respect to access to effective treatment may contribute to health disparities. In addition, the absence of insurance coverage for alcoholism treatment may be an important barrier to treatment access, while the lack of culturally appropriate aftercare may similarly impede the effective delivery of treatment to nonmajority patients. Although access to treatment for some minority populations has not been assessed widely, some factors have been studied. Available data indicate that Hispanics/Latinos and African Americans are less likely than the general population to have health insurance that would support access to treatment.

Castro FG, Proescholdbell RJ, Abeita L & Rodriguez D. Ethnic and cultural minority groups, In McCrady BS and Epstein EE, Addictions: A Comprehensive Guidebook, New York: Oxford University Press, pp. 499-526, 1999.

Objective 5.1: Continue and expand a program of research that examines the influence of race/ethnicity and associated sociocultural factors on health disparities and that assesses their combined impact on the effectiveness of treatment and health services delivery for alcohol abuse and alcoholism in minority populations. Where appropriate, develop new culturally sensitive treatments for racial and ethnic minorities and for those who are economically disadvantaged. In addition, develop and improve the existing program of research for special subgroups within racial and ethnic diverse populations such as persons with concurrent psychiatric comorbidity, alcohol-related medical comorbidity, and/or HIV/AIDS; individuals in the criminal justice system; and adolescents, the elderly, and pregnant alcoholic women who place their children at risk for FAS.

Action Plan 5.1: a) Support research to replicate established behavioral/psychosocial and pharmacological treatments for alcohol abuse and alcoholism in minority populations and to develop and test new approaches hypothesized to enhance treatment outcomes in these populations. b) Fund research to critique reliability and validity of culturally relevant constructs and measures (e.g., demographic, economic, and sociocultural), and encourage the development of new indices where appropriate. Participate in NIAAA-wide requests for applications wherever possible to achieve these objectives.

Examples of research projects are: a) Identify social and cultural factors that influence motivation for treatment, adherence to treatment, and treatment outcomes. b) Replicate and test in minority populations the relative effectiveness of established treatments for alcoholism, including Brief Intervention, Cognitive Behavioral Therapy, Motivational Enhancement Therapy, Twelve-Step Facilitation Therapy, or combinations of these with pharmacological treatment (e.g., naltrexone, disulfiram). c) Test and implement “customized” treatment strategies to increase motivation, improve treatment entry, promote treatment adherence, and address relapse. d) Develop and evaluate new medications and behavioral/psychosocial therapies that are tailored to the needs of specific racial/ethnic populations.

Timeline: **FY 2002** - Convene working group; solicit applications for research grants. Award 1-3 grants from the RFA entitled “Research on Alcohol Health Disparities” (RFA-AA-02-002).  
**FY 2003** - Support a literature review; award 2-4 research project grants, career development awards, and/or supplements; continue to solicit research applications.  
**FY 2004** - Continue support of ongoing projects; award 2 new research project grants, career development awards, and/or supplements; continue to solicit research applications; disseminate information on scientific findings and other research issues.  
**FY 2005** - Continue support of ongoing projects; award 1-3 new research

project grants and follow priorities specified above for FY 2004.  
**FY 2006** - Continue support for ongoing projects; award 1-3 new research grants and follow priorities specified above for FY 2004.

Estimated Completion Date for Objective: FY 2010

Performance Measures 5.1: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Proceedings of working group with recommendations for research distributed. In FY2002, convene a working group with health disparities and alcohol treatment research experts to critique the status of research in this area, to identify major gaps in research on the relationship between race/ethnicity, health disparities, and alcoholism treatment outcomes; and to identify future research needs for health disparities research in NIAAA's alcohol treatment research programs.
- 2) Number of literature reviews conducted: Conduct a literature review to identify the nature and scope of what is currently known about the influence on alcoholism treatment outcomes of race/ethnicity and associated sociocultural variables.
- 3) Number of Program Announcements (PA) and Requests for Applications (RFA): The development of program announcements and requests for applications where appropriate.
- 4) Number of grant writing and mentoring workshops: Conduct grant writing and mentoring workshops where appropriate.
- 5) Number of brochures, fact sheets, web pages, and other publications.
- 6) Number of orders placed through the national clearing house and web hits per web page. Dissemination of scientific information to researchers, treatment providers, and policy makers by developing brochures, factoids, web pages and publications.

Outcome Measures 5.1: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of research project grants and contracts addressing issues of health disparities and the treatment of alcohol abuse and alcoholism.
- 2) Number of journal articles, book chapters, reports, monographs, and other documents that are published relevant to this action plan under support from NIAAA funding during each fiscal year.
- 3) The number and type of research information publications disseminated by NIAAA and the number of scientific conference presentations, symposia, and other research dissemination activities that are conducted relevant to the results of this action plan during each fiscal year.

Objective 5.2: Health services: access, utilization, cost effectiveness, and cost benefit of alcohol abuse and alcoholism treatments. Evaluate the current knowledge base and support future research on disparities in access to and utilization of treatment for alcohol abuse and alcoholism (including disparities in coverage under health insurance policies), and on disparities in the cost effectiveness and cost benefit of treatments tailored to specific racial/ethnic minority groups.

Action Plan 5.2: The research goal of Action Plan 2 is to support research to improve access to and utilization of alcohol treatment services (including access to health coverage) and to increase the cost effectiveness of services for specific racial/ethnic groups demonstrating health disparities in this regard.

Timeline:

- FY 2002** - Solicit applications for research project grants, career development awards, and/or supplements. Award 1-2 grants from the RFA entitled "Research on Alcohol Health Disparities" (RFA-AA-02-002).
- FY 2003** - Convene working group for conducting literature review. Continue to solicit applications for research project grants; award 2-4 research project grants, career development awards, and/or supplements; continue support of ongoing projects.
- FY 2004** - Continue support of ongoing projects; award 2 new research project grants, career development awards, and/or supplements; continue to solicit research applications; disseminate information on scientific findings and other research issues.
- FY 2005** - Continue support of 4-6 ongoing projects; award 2 new research project grants and follow priorities specified above for FY 2004.
- FY 2006** - Continue support for 8-10 ongoing projects; award 2 new research project grants and follow priorities specified above for FY 2004.

Estimated Completion Date for Objective: FY 2010

Performance Measures 5.2: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Number of working groups convened with health disparities and alcohol health services research experts.
- 2) Literature review conducted. The purpose will be to identify the nature and scope of what is currently known about the influence of health disparities among diverse racial/ethnic groups on access to, utilization of, and cost analyses of alcohol treatment services.
- 3) Number of program announcements and requests for applications: The development of program announcements and requests for applications where appropriate.

- 4) Number of NIAAA publications: Results of a literature review, workshop proceedings, and research findings will be published in peer reviewed journals and NIAAA publications.
- 5) Number of grant writing and mentoring workshops: Conduct grant writing and mentoring workshops where appropriate.
- 6) Number of brochures, fact sheets, web pages, and other publications (including orders placed through the national clearing house and web hits per web page): Dissemination of scientific information to researchers, treatment providers, and policy makers by developing brochures, factoids, web pages and publications.

Outcome Measures 5.2: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of research project grants and contracts addressing issues of health disparities and access to treatment, utilization of treatment, and cost/cost effectiveness of treatment.
- 2) Number of journal articles, book chapters, reports, monographs, and other documents that are published relevant to this action plan under support from NIAAA funding during each fiscal year.
- 3) The number and type of research information publications disseminated by NIAAA and the number of scientific conference presentations, symposia, and other research dissemination activities that are conducted relevant to the results of this action plan during each fiscal year.

Objective 5.3: Minority subgroups: special populations. Evaluate the current knowledge base and support future research on how to meet special treatment and service needs for alcohol problems in minority subgroups including persons with concurrent psychiatric comorbidity, alcohol-related medical comorbidity, and/or HIV/AIDS; individuals in the criminal justice system; and adolescents, the elderly, and pregnant alcoholic women who place their children at risk for FAS.

Action Plan 5.3: The research goals are: a) Support projects that evaluate interventions and services designed to improve alcohol-related treatment outcomes in minority subgroups identified under Action Plan 3. b) Support research to assess the effectiveness of established treatments through secondary analyses and to develop and evaluate new treatments, or combinations of treatments, hypothesized to meet the special needs of minority subgroups. c) Support research to examine and reduce disparities in access to and utilization of treatment in targeted racial/ethnic minority subgroups.

Timeline:     **FY 2002** - Solicit applications for research project grants, career development awards, and/or supplements. Award 1-2 grants from the RFA entitled "Research on Alcohol Health Disparities" (RFA-AA-02-002).  
                  **FY 2003** - Convene working group and for conducting literature review.

Continue to solicit applications for research project grants; award 2-4 research project grants, career development awards, and/or supplements; continue support of ongoing projects.

**FY 2004** - Continue support of ongoing projects; award 1-3 new research project grants, career development awards, and/or supplements; continue to solicit research applications; disseminate information on scientific findings and other research issues.

**FY 2005** - Continue support of ongoing projects; award 1-3 new research project grants and follow priorities specified above for FY 2004.

**FY 2006** - Continue support for ongoing projects; award 1-3 new research project grants and follow priorities specified above for FY 2004.

Estimated Completion Date for Objective: FY 2010

Performance Measures 5.3: The NIAAA will use these performance measures to demonstrate accomplishment of the Action Plan:

- 1) Working group convened: In FY2003, convene a working group with health disparities, interventions research experts to critique the status of research in this area with respect to minority subgroups specified above to identify major gaps in research on the relationship between race/ethnicity, health disparities, and alcoholism treatment outcomes; and to identify future research needs for health disparities research in NIAAA's alcohol treatment research programs.
- 2) Conduct literature review: In FY2003, conduct a literature review to identify the nature and scope of what is currently known about the unique needs of these subgroups relevant to alcohol abuse and alcoholism behavioral/psychosocial and pharmacological interventions.
- 3) Number of program announcements and requests for applications: The development of program announcements and requests for applications where appropriate.
- 4) Number of NIAAA publications: Results of a literature review, workshop proceedings, and research findings will be published in peer reviewed journals and NIAAA publications.
- 5) Number of grant writing and mentoring workshops: Conduct grant writing and mentoring workshops where appropriate.
- 6) Number of brochures, fact sheets, web pages, and other publications (including orders placed through the national clearing house and web hits per web page): Dissemination of scientific information to researchers, treatment providers, and policy makers by developing brochures, factoids, web pages and publications.

Outcome Measures 5.3: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.



- 1) Number of research project grants that evaluate interventions and services designed to improve alcohol-related treatment outcomes in minority subgroups which may have special treatment and service needs
- 2) Number of journal articles, book chapters, reports, monographs, and other documents that are published relevant to this action plan under support from NIAAA funding during each fiscal year.
- 3) The number and type of research information publications disseminated by NIAAA and the number of scientific conference presentations, symposia, and other research dissemination activities that are conducted relevant to the results of this action plan during each fiscal year.

## 6. AREA OF EMPHASIS: RESEARCH INFRASTRUCTURE

### Rationale and Priority

NIAAA has identified two areas where new and enhanced activities could strengthen its research infrastructure and better equip the Institute to address health disparities. The areas are: increased support for collaborative capacity development in minority-serving institutions; and expansion of efforts to attract and retain minority investigators to alcohol research.

Minority clinicians and scientists have much to add to our understanding of alcohol-related health disparities. Established alcohol researchers have demonstrated a willingness to collaborate with minority clinicians/investigators and to include minority populations and communities in their research.

The plan will expand and strengthen the existing NIAAA initiatives:

*Cooperative Agreements* - In 1997, NIAAA initiated three Collaborative Minority Institution Alcohol Research Development (CMIARD) programs. Using the cooperative agreement mechanism (U24), these grants supported a variety of exploratory research projects each building upon existing expertise at minority serving institution, strong collaborations from established alcohol research scientists, and significant input from Institute staff.

*Developmental Research Project Grants* - NIAAA has issued a program announcement titled Developmental Grants for Minority Collaborative Projects (R21) to support pilot projects developed collaboratively between scientists in minority institutions and established alcohol researchers. Its purpose is to support the transition from mentored collaborative research development to larger, independent investigator-initiated research projects. Developmental awards are intended to enhance and extend the alcohol research activities of minority scientists.

*Special Efforts in Alaska and Hawaii.* - With co-funding from NIH/ORMH (currently NCMHD), NIAAA has increased its support for studies on the health disparities among Alaskan Natives with a special research project grant to the University of Alaska on pathways to Alaskan Native sobriety. NIAAA has also supported the State of Hawaii in conducting a symposium on alcohol research as well as co-sponsoring a workshop and symposium with the HMO Research Network. A collaborative project to develop alcohol epidemiology research with the University of Hawaii is under way.

*Training of Health Care Professionals* - Efforts are under way to facilitate the application of research results to practice through the development of curricula for

pediatricians and prenatal care professionals on the identification of children affected by prenatal exposure to alcohol and on screening women of childbearing age for at-risk drinking. A companion booklet in English and Spanish has also been developed to assist women in cooperating with their health care providers to reduce at-risk drinking.

*Technical Assistance Workshops* - NIAAA has been conducting a series of workshops to attract faculty in minority-serving institutions to alcohol research. A recent effort, convened as a satellite to the annual meeting of the Research Society on Alcoholism, offered guidance in project development and grantsmanship. Other technical assistance initiatives include programs in distance and face-to-face mentoring in prevention research, discussions on the conduct of clinical alcohol research, and sessions to stimulate collaborative projects.

*Minority Supplements* - NIAAA continues to increase funding for the Under-represented Minority Supplement Program. Under this program the Institute supplements existing grants to assist new minority scientists, researchers, and clinicians in minority-serving and non-minority-serving institutions to develop small projects under the mentorship of existing NIAAA principal investigators. Such projects have the potential for expansion into larger studies.

*Mentor Awards* - Encourage and support established alcohol scientists on research project grants, centers and contracts to initiate collaborations with minority-serving institutions.

Objective 6.1: Increase capacity development in minority-serving institutions (MSIs) through support of mutually beneficial collaborative research with leaders in alcohol research. Involve minority populations and communities in alcohol research and wellness strategies.

Action Plan 6.1: Provide support for promising areas of alcohol research developed or developing in minority serving institutions. Incorporate lessons learned from NIAAA's current collaborative research development programs (collaborative agreements and feasibility contracts). Provide technical assistance and promote strategies to improve institutional expertise and systems to handle the administrative and fiscal responsibilities associated with business management for federal grant programs.

Timeline: **FY 2002**- Provide bridge funding for 3 ongoing Collaborative Minority Institution Alcohol Research Development (CMIARD) projects and solicit renewal applications. Solicit applications for 3-5 new CMIARD cooperative agreements and planning grants for CMIARD cooperative agreements. **Award 2-4 planning grants**. Develop requirements for data to evaluate success of CMIARD projects.  
**FY 2003**- Award 6-8 renewal and new CMIARDs in FY 2003. Continue planning grants.

**FY 2004** - Continue support for 8-10 CMIARD projects and planning grants

**FY 2005** - Continue support for CMIARD projects; award new CMIARD projects -collect data for evaluation.

**FY 2006** - Continue support for CMIARD projects- award contract to evaluate data.

Estimated Completion Date for Action Plan: FY 2012

Performance Measures 6.1: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of meetings/workshops or technical assistance programs convened directed toward creating potential CMIARD collaborations and/or increasing likelihood of quality applications to planned RFAs and PAs.
- 2) Number of Requests for Applications (RFAs) for CMIARD Collaborative Research programs.
- 3) Number of Program Announcements (PAs) designed to supplement or further the advancement of CMIARD related research.
- 4) Number of CMIARD applications received.

Outcome Measure 6.1: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives.

- 1) Number of CMIARD applications funded.
- 2) Number of minority-serving institutions that are conducting alcohol research relevant to the needs of their communities and populations.
- 3) Number of research projects being pursued at CMIARD-funded MSIs.
- 4) Number of research projects being pursued at CMIARD-funded MSIs specifically targeted to populations that reflect the multi-ethnic, multi-cultural heterogeneity of the U.S. population.
- 5) Number of presentations at National meetings and published abstracts resulting from CMIARD-supported research.
- 6) Number of publications in peer-review journals resulting from CMIARD-supported research.

Objective 6.2: Attract new and retain existing minority investigators in alcohol research. Develop minority investigators conducting alcohol research. Bring scientists and clinicians with experience working with minority populations into the alcohol research field.

Action Plan 6.2: Increase the number of minority alcohol research scientists, particularly at minority serving institutions and increase the amount and complexity of research conducted by minority investigators. Encourage Training Grant Program Directors to seek out minority investigators. Encourage the Research Society on Alcoholism Education Committee to promote outreach programs for minority students and investigators.

Timeline: **FY 2002** - Encourage minority investigators to submit R21, R01 or other types of research grant or fellowship applications to NIAAA. Encourage collaboration with more experienced researchers. Support minority supplements to grants for minority clinicians, faculty and students. Alert Training Grant Directors to opportunities for minority students and trainees.

**FY 2003** - Award research projects whose Principal Investigators are new investigators and racial or ethnic minorities. Convene a workshop to develop strategies to enable minority investigators to compete successfully for regular research grants. Identify barriers that limit minority investigators from competing successfully for NIH funding.

**FY 2004** - Solicit applications from additional minority investigators. Take steps to overcome impediments to minority investigators competing successfully for funding.

**FY 2005** - Support additional minority investigators. Encourage minority investigators to present their findings at national research meetings.

**FY 2006** - Continue support for new minority investigators.

Estimated Completion Date for Action Plan: FY2008

Performance Measures 6.2:

- 1) Number of OCR-sponsored health disparities research meetings and technical assistance workshops.
- 2) Number of minority supplements to support involvement of minority investigators.
- 3) Number of new NIH applications resulting from OCR-sponsored NIAAA meetings and workshops.
- 4) Number of partnerships between experienced alcohol researchers and minority researchers and clinicians, or faculty from minority-serving institutions resulting from OCR-sponsored NIAAA meetings and workshops.
- 5) Number of new strategies identified to improve applicants expertise in developing sound research hypotheses and writing responsive grant applications and contract proposals.

## Outcome Measures 6.2

- 1) Number of under-represented minority PIs conducting alcohol research as a result of OCR-sponsored meetings, workshops, and supplements.
- 2) Number of presentations at National meetings resulting from OCR-sponsored NIAAA meetings and workshops.
- 3) Number of publications in peer-reviewed journals resulting from NIAAA-sponsored research developed by OCR-sponsored meetings and workshops.

Objective 6.3: Expose minority high school and/or college and graduate level students and their teachers to the NIAAA Intramural Program's cutting-edge basic science research with the hope that this experience will lead them to choose careers in alcohol-related biomedical research.

Action Plan 6.3: The NIAAA Intramural Program will host four high school, college or graduate students and one teacher from minority institutions for 2 months every summer. They will be assigned to specific laboratories and will learn the basics of biological research under the mentorship of the laboratory director or another senior scientist. The more successful students will be encouraged to return the following summer when they can become more actively involved in specific research projects. At the end of this period, each student and teacher will present his or her work at a laboratory meeting and will receive feedback from NIAAA's intramural scientists. A database will be developed to follow the career development of these students.

Timeline:

- FY 2002-** Develop application form and recruit applicants for summer.
- FY 2003-** Return of successful students from previous summer and recruit more so total equals 4. Develop database and requirements to evaluate success of project.
- FY 2004 -** Return of successful students from previous summer and recruit additional so total equals 4. Review requirements evaluating success of individuals. Enter career path information into database.
- FY 2005 -** Continue support for returning or new summer students and teacher. Review requirements evaluating success of individuals. Enter career path information into database.
- FY 2006 -** Continue support for project and to evaluate career data.

Estimated Completion Date for Objective: Ongoing each year as long as objectives are met.

Performance Measures 6.3: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of presentations the first year to intramural investigators.
- 2) Number of students returning each successive year and subsequent presentations and abstracts/posters presented at NIH Summer Student Fair.

Outcome Measure 6.3: The NIAAA will use these procedures to measure and evaluate the outcomes of the objectives:

- 1) Number of students who study science-related curriculums at universities and colleges
- 2) Number of students who obtain a bachelor's degree in a scientific field
- 3) Number of students who obtain advanced degrees in a scientific discipline.

## **7. AREA OF EMPHASIS: INCREASE AT-RISK AND MINORITY ACCESS TO ALCOHOL-RELATED HEALTH MESSAGES**

### Rationale and Priority

Objective 7.1: Increase awareness of alcohol abuse, alcohol dependence (alcoholism), and alcohol-related problems experienced by minority populations. Develop culturally relevant health messages on a variety of alcohol-related issues such as FAS, drinking and driving, alcoholic liver disease, and HIV/AIDS. Reach out to minority and minority-serving health care professionals and communities to gather and impart information that will make it possible to focus health messages and distribute research findings more effectively.

Action Plan 7.1: Develop a Health Communications Program for Minority Populations. The program will include developing a 5-year strategic plan, designing and testing prevention messages with different target audiences, producing culturally relevant print and non-print materials, implementing various prevention campaigns such as preventing drinking and driving among Hispanic men, and evaluating the program's effectiveness. An expert panel, comprised of minority organizations/associations, will provide guidance to SCB.

Timeline:

- FY 2002-** Develop and issue a Request for Proposal (RFP) for a health communications program for minority populations.
- FY 2003-** Award a contract to implement the health communications program.
- FY 2004** -Continue support for the contract.
- FY 2005** - Continue support for the contract.
- FY 2006** - Continue support for the contract.

Estimated Completion Date for Objective: FY 2007

Performance Measures 7.1: The Scientific Communications Branch (SCB) will monitor and assess the implementation of the 5-year strategic plan and its products. This activity will include monitoring:

- 1) Number of messages developed for each targeted minority population.
- 2) Number of materials produced and distributed to targeted audiences.

Outcome Measure 7.1: To help gauge effectiveness of the communications program, quantitative and qualitative evidence will be tracked. This will include:

- 1) Number of radio/television placements.



- 2) Number of televised and radio news stories, print media stories.
- 3) Number of materials disseminated, and pre-and post-surveys conducted.

Objective 7.2:

Action Plan 7.2: Form partnerships with organizations and associations whose goals are to promote healthy and safe behaviors and to develop comprehensive research plans to address alcohol-related problems for specific audiences. Identify and establish collaborative partnerships with NIH, other governmental and national organizations such as the National Traffic Highway Safety Administration, Mothers Against Drunk Driving, National Organization on Fetal Alcohol Syndrome as well as local groups to implement various prevention campaigns associated with the Health Communications Program for Minority Populations.

Timeline:     **FY 2002** - Prepare and issue Request for Proposal.  
                  **FY 2003** - Award contract.  
                  **FY 2004** - Continue support for contract.  
                  **FY 2005** - Continue support for contract.  
                  **FY 2006** - Continue support for contract.

Performance Measures 7.2: To monitor our performance we will determine:

- 1) Number of National and Local organizations involved in the project that cooperate in communicating with minority populations.
- 2) Number of organizations involved in the project that specifically represent minority populations.
- 3) Number of organizations that provide the NIAAA with their needs for disseminating relevant communications and research findings to their constituencies.

Outcome Measures 7.2

- 1) Percentage of NIAAA's RFA's and program announcements that specifically include health disparities research.
- 2) Percentage of NIAAA's publications and communications that specifically include health disparities research.

Action Plan 7.3: Include and expand health care professionals in NIAAA's outreach efforts.

Timeline:     **FY 2002** - Develop and issue Request for Proposal.  
                  **FY 2003** - Award contract.

**FY 2004** - Develop curricula/training.  
**FY 2005** - Implement training  
**FY 2006** - Evaluate

Estimated Completion Date for Objective: FY 2012

Performance Measures 7.3:

- 1) Number of culturally relevant information products that health care providers can use with their clients.
- 2) Number of visits, lectures, meetings or contacts to provide accurate, current information and training on how to use the information effectively with specific populations.

Outcome Measures 7.3:

- 1) Number of training programs that include alcohol-specific information for minority clients.
- 2) Number and characteristics of curricula used for targeted minority populations.

## **8. AREA OF EMPHASIS: SCIENCE EDUCATION AND HEALTH PROFESSIONALS EDUCATION INITIATIVE**

### Rationale and Priority

Alcohol related disorders occur in approximately 26 percent of general medical patients, a prevalence rate that is similar to that for hypertension. Given this rate of occurrence, the Institute of Medicine recommends that questions about alcohol use be included among the routine behavioral/lifestyle questions asked of all those seeking medical care. Because medical and other health professional schools provide only minimal training to recognize and treat alcohol problems, NIAAA has developed a program to develop better methods for teaching health care professionals to screen for and treat alcoholism. Special treatment issues for minority groups, such as higher incidence rates for alcoholic liver disease and FAS, treatment barriers, cultural factors, must be incorporated in our health professions training for those who care for racial and ethnic minority individuals. Many patients are willing to accept suggestions from health care professionals, and the skills to intervene effectively, refer and follow-up with these individuals must be included in training and continuing education programs. Further, there is a need to reach children, future teen and adult patients, with information concerning alcohol and its effects on health. School-based science education is a potentially valuable vehicle for this. It is proposed that alcohol related science education curricula and curriculum supplements be developed and field-tested in multi-ethnic or predominately minority serving schools.

### Improving Physician/Health Care Provider Intervention Skills

Objective 8.1: Make research-based education regarding alcohol use disorders, interventions and treatment a priority in the training of health professionals serving minority populations. Increase the number of faculty role models on the handling of alcohol use disorders and intervention; improve the patient physician interaction around the topic of alcohol use, abuse and alcoholism.

Action Plan 8.1: Improve physicians' and other health care providers' skills in detecting alcohol-related problems among minority populations, conducting office-based interventions (including brief therapy and pharmacotherapy), and referring minority patients for treatment. Form a trans-NIH working group on research and treatment of behavioral health problems among minority patients in primary care settings in collaboration with other NIH Institutes. Conduct translational research and effectiveness trials of screening approaches, brief office-based interventions, and pharmacotherapy for minority patients.

Timeline: **FY 2002-** form trans-NIH working group; Hold Expert Panel meeting; Develop RFA; Develop clinical pharmacy curriculum.

**FY 2003-** Publish RFA and award 4-5 grants; bi monthly working group meetings; annual grantee meeting; partnership with minority serving institutions and medical/health professions associations for research dissemination (including incorporation of NIAAA medical, nursing, social work and pharmacy curriculums); Pilot testing of pharmacy curriculum.

**FY 2004** - continue NIH working group and outside partnerships; continue grant support

**FY 2005** -continue NIH-working group and outside partnerships; continue grant support

**FY 2006** - continue support/ award new grants. Award evaluation contract to assess effectiveness of research dissemination efforts.

Estimated Completion Date for Objective: FY 2008

Performance Measures 8.1: The NIAAA will use these performance measures to demonstrate accomplishment of the objective:

- 1) Number of studies that are identifying the best ways to improve health professionals' skills in screening and intervention for alcohol-use disorders in minority populations.
- 2) Number of technical assistance workshops to facilitate proposals for translational research and effectiveness trials of screening approaches, brief, office-based interventions, and pharmacotherapy for minority patients.
- 3) Number of partnerships with medical and other health professions associations actively working to disseminate research results to graduate physicians serving minority populations.
- 4) Number of recruiting contacts to institutes regarding trans-NIH working group and actual working group meetings held

Outcome Measure 8.1: The NIAAA will use these procedures to measure and evaluate the outcomes of the:

- 1) Number of new systems approaches to integrating culturally sensitive screening for alcohol with screening for other disorders (e.g., hypertension) in primary care settings with minority patients.
- 2) Number of medical and other health profession education programs in minority serving institutions that are using the NIAAA developed curricula in medicine, pharmacy, nursing, and social work in undergraduate education.
- 3) Number of graduate health professionals receiving CME/CE training regarding the prevention, detection, and intervention of alcohol-use disorders in minority populations.
- 4) Number of institutes actively participating in trans-NIH working group on behavioral health in minority populations.

Action Plan 8.2: Develop curricula and train health care providers in the use of booklets on drinking during pregnancy, reducing at-risk drinking for women and FAS and neurobehavioral deficits aimed at pediatric and prenatal care professionals. Collaborate with Tribal Colleges and Universities to develop and implement culturally sensitive curriculum and education materials about all aspects of alcoholism. Implement these curricula in TCU training programs for health care professionals.

Timeline:

- FY 2002** - Develop/implement plan to present initiative at appropriate professional meetings (AAMC, NMA). Convene expert panel; Develop RFP/RFA for curriculum development and clinical training
- FY 2003** - Publish RFP/RFA, hold technical assistance workshop and award grants/ contracts. Hold grantee meeting to standardize protocols, definitions, instruments, etc., to permit comparability among projects.
- FY 2004** - Continue support for grants/contracts; solicit applications and support additional grants/contracts
- FY 2005** - Continue support; Support additional grants/contracts
- FY 2006** - Continue support; Partner with AHRQ; Award evaluation contract; Disseminate results

Estimated Completion Date for Objective: FY 2008

Performance Measures 8.2:

- 1) Number of funded grants and contracts that identify key elements for curricula use in high risk, minority-serving health profession environments.
- 2) Number of presentations made at professional meetings
- 3) Completion of effectiveness study regarding training efficacy in reducing at-risk drinking.
- 4) Number of training of trainer courses held.

Outcome Measures 8.2:

- 1) Number of new strategies for training health care providers and allied health professionals.
- 2) Number of curriculum tests completed.
- 3) Number of health professionals receiving training on identification of women/ children.
- 4) Number of better strategies for delivering appropriate interventions, referrals, and care to minority populations.
- 5) Number of health professionals using NIAAA developed protocols for identifying at risk drinking during pregnancy
- 6) Number of health professionals using NIAAA developed protocol for identifying children with adverse effects from pre-natal alcohol exposure.

7) Increase in number of referrals of women with alcohol use problems; increase in number of referrals of children with alcohol-related neurodevelopmental disorders.

Objective 8.3: Develop and Test Alcohol-Related Science Education Curricula.

Action Plan 8.3: Develop and field-test alcohol-related science education curricula. Adapt and field test NCMHD and NIAAA funded curriculum supplements and materials for use in multi-ethnic and minority serving adult education, secondary, and middle schools.

Timeline:     **FY2002** - Publish up-dated PA for Alcohol Education Project Grants (R25's), giving special emphasis to addressing under served minority populations; fund grants; establish advisory committee and partnerships  
                  **FY 2003**- Partner with teacher colleges/ university Education schools to use curricula in teacher training aimed at minority populations; award additional grants; hold advisory committee meeting  
                  **FY 2004** - continue teacher college partnerships; continued funding of grants; awards new education grants; hold advisory committee meeting  
                  **FY 2005** - Conduct invitational summer science teacher institutes; support translation of adult education curricula into Spanish and other necessary languages; continue grant support; conduct portfolio review panel and devise and carry out strategies for filling gaps  
                  **FY 2006**- Continue, evaluate, and expand outreach of all of the above, identifying strategies for obtaining community support as needed and relevant.

Estimated Completion Date for Objective: FY 2012

Performance Measures 8.3:

- 1) Number of grant/contract awards made for curricula development and testing
- 2) Number of partnerships formed with colleges/ university Education schools that train teachers to serve minority populations
- 3) Number of summer science teacher institutes convened
- 4) Number of collaborations with community organizations to support curriculum dissemination.

Outcome Measures 8.3:

- 1) Number of new/revised curricula
- 2) Number of new strategies for getting teachers/student teachers that serve minority populations to utilize NIH developed curricula
- 3) Number of teachers trained in use of curricula
- 4) Number of schools/ adult education programs adopting and using NIH developed curricula

NIAAA Health Disparities Budget  
(Dollars in Millions)

Institute/Center	FY 2002			FY 2003		
	Research	Infrastructure	Outreach	Research	Infrastructure	Outreach
NIAAA	\$30.80	\$4.00	\$1.60	\$34.10	\$4.20	\$3.20