NIAAA Minority Health and Health Disparities Research

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National Institute on Alcohol Abuse and Alcoholism

Mission

- increase the understanding of how alcohol use impacts normal and abnormal biological functions and behavior across the lifespan
- improve the diagnosis, prevention, and treatment of alcoholism and other alcohol-related disorders
- enhance quality health care

http://pubs.niaaa.nih.gov/publications/StrategicPlan/NIAAASTRATEGICPLAN.htm
Goal to increase understanding of the risk and resilience factors that contribute to racial/ethnic, rural (vrs. urban) & low SES based differences in patterns of drinking, AUDs and alcohol-related problems, and encourage and support research on health disparities:

- Building the capacity of minority serving institutions and diverse investigators to conduct alcohol research
- Developing a body of knowledge; transferring knowledge to practice and experiential/clinical knowledge to research
- Building multidisciplinary, multi-ethnic collaborating teams to address specific research areas
National Epidemiologic Survey of Alcohol and Related Conditions (NESARC)

• Nationally representative sample of U.S. adults 18+, interviewed 2001-2002 and re-interviewed 2004-2005

• Wave 1 response rate of 81% → N = 43,093

• Wave 2 re-interviewed eligible members of original sample (excluding those who had died or too ill, become institutionalized, entered the military, or left the country)

• Wave 2 response rate of 87% → cumulative response rate of 70% → N=34,653

• Wave 3 is oversampling Asian American and collecting genetic material in a new sample
Distribution of respondents, by race-ethnicity

<table>
<thead>
<tr>
<th>Race-Ethnicity</th>
<th>Wave 1</th>
<th>Wave 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>24,507</td>
<td>20,174</td>
</tr>
<tr>
<td>Black</td>
<td>8,245</td>
<td>6,577</td>
</tr>
<tr>
<td>Nat. Am.</td>
<td>701</td>
<td>580</td>
</tr>
<tr>
<td>Asian</td>
<td>1,332</td>
<td>966</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8,308</td>
<td>6,356</td>
</tr>
</tbody>
</table>
Prevalence of past-year DSM-IV alcohol use disorders (AUD), by race-ethnicity: Total population
Prevalence of past-year DSM-IV alcohol use disorders (AUD), by race-ethnicity:
Past-year drinkers

<table>
<thead>
<tr>
<th>Race-Ethnicity</th>
<th>Abuse Only</th>
<th>Dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>7.3%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Black</td>
<td>6.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Native American</td>
<td>6.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Asian</td>
<td>4.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.6%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>
Incidence of 3-year Wave 1 vrs 2 NESARC alcohol abuse and dependence, by race-ethnicity: Total population at risk

- **Abuse**
  - White: 5.7%
  - Black: 4.7%
  - Native American: 4.5%
  - Asian: 4.6%
  - Hispanic: 4.2%

- **Dependence**
  - White: 2.9%
  - Black: 4.4%
  - Native American: 4.2%
  - Asian: 2.5%
  - Hispanic: 4.5%
Organization of NIAAA Extramural Research

- Division of Metabolism and Health Effects
- Division of Epidemiology & Prevention Research
- Division of Treatment and Recovery Research
- Division of Neuroscience and Behavior
Trans-Divisional Research Emphasis

- Minority Health/Health Disparities
- Fetal Alcohol Spectrum Disorders
- Underage Drinking
- HIV/AIDS and Alcohol Use
- Genes X Environment
- Medication Development /Pharmacogenetics Implementation Acceptability Research
- Intersection of Addictions Research (CRAN)
Minority Health / Health Disparities and Diversity Training

Encourage and support research on minority health and health disparities by:

- **Infrastructure development** - Minority Serving Institutions (MSIs) and Diverse Investigators (Diversity Supplements, F31s, Diversity Neuroscience R25, Cooperative Agreements)

- **Enhanced technical assistance**: MHHD research, MSIs, Diversity enhancing programs awardees

- NIH and NIAAA Directors committed to increase diversity of the biomedical extramural scientific workforce (and parallel efforts in NIH staffing)
Diversity MHHD Research Infrastructure
Enhancing FOAs

- Research Supplements to Promote Diversity in Health-Related Research PA-12-149
- NRSA Predoctoral Fellowships (F31) to Promote Diversity in Health-Related Research PA-10-109
- NIH Blueprint Program for Enhancing Neuroscience Diversity through Undergraduate Research Education Experiences (R25) RFA-NS-14-010
- Collaborative Minority Alcohol Research Center Development (U54) RFA-AA10-001 (TB Renewed?)
- Small Business Administrative Contract: Data base for non English language alcohol related research measures to be review in March 2014
Minority Serving Institutions Infrastructure Development Efforts

- 48 to American Indian Alaska Native Serving Institutions (not TCUs)
- 36 to Asian American, Native Hawaiian, Pacific Islander Serving Institutions
- 32 to Hispanic Serving Institutions
- 5 awards to HBCU/Predominantly Black Colleges
  - U54 Collaboration between North Carolina Central University and Bowles Center at UNC
Distribution of FY 2013 Portfolio Diversity Supplements and New Grants

- DTRR: 29%
- DEPR: 28%
- DMB: 28%
- DMHE: 15%

- DEPR: $2,709,117
- DMHE: $1,430,334
- DMB: $2,701,267
- DTRR: $2,798,673
Enhanced Technical Assistance

- Exceptional guidance/technical assistance to PIs at MSIs, health disparities researchers, and diversity enhancing awardees

- Proactive Outreach (PO) to supportively increased knowledge and confidence with NIH submission, review & funding processes
  - Attend/listen to and enhance knowledge
  - Won’t call us ..... We’ll call you
  - Review summary statements (even non discussed ones!)
  - Cautiously optimistic (yet realistic) perspective
  - Plan for resubmission or next application
Health Disparities/Diversity Friendly/Focused Research Funding Opportunity Announcements

- **Behavioral & Social Science Research Understanding and Reducing Health Disparities (OBSSR PA-13-292)**
- **Interventions for Health Promotion and Disease Prevention in Native American Populations (PAR-11-346 NCI lead IC to be renewed)**
- **Reducing Health Disparities Among Minority and Underserved Children (PA-14-033/4 )**
- **Behavioral & Integrative Treatment Development Program (R34) (PA-13-078)**
- **Pilot and Feasibility Studies in Preparation for Drug and Alcohol Abuse Prevention Trials (R34) (PA-12-171)**
Low Income & Rural Health Disparities Research

• Harm reduction with pharmacotherapy for homeless adults with alcohol dependence

• Development of LEAP for the Homeless with Alcohol Problems

• Influence of Food Insecurity on Adherence

• The Strong African American Families Community Dissemination Model

• Northwest Pennsylvania Adolescent Alcohol Research Cooperative (Phase II)
Trans-Divisional Research Emphasis

- Minority Health/Health Disparities
- Fetal Alcohol Spectrum Disorders
NIAAA Research
Alcohol Across the Lifespan

- Alcohol
- FAS
- Binge Drinking Consequences
- Alcoholic Family Environment
- Alcohol Dependence
- Cumulative Organ Damage
- Medications Interactions

ENVIRONMENT
GENES

- Early Stage
- Childhood
- Adolescent
- Young Adult
- Middle Age
- Senior
The Face of FAS

"Fetal Alcohol Spectrum Disorders"

Fetal Alcohol Syndrome

Alcohol-related Neurodevelopmental Disorder

Discriminating Features
- short palpebral fissures
- flat midface
- short nose
- indistinct philtrum
- thin upper lip

Associated Features
- epicanthal folds
- low nasal bridge
- minor ear anomalies
- micrognathia
One More Face of FASD?
MHHD FASD Research

• Case Ascertainment to Estimate the U.S. Prevalence of Fetal Alcohol Spectrum Disorders in Young Children in San Diego, Great Falls, Mt., Sioux Falls, ND (Pine Ridge) and rural NC

• Prenatal Alcohol and SIDS and Stillbirth (PASS) Network – Pine Ridge and South Africa

• Native American Research Centers for Health
  - Prenatal Alcohol Consumption Among Native American Women in San Diego County
  - Development of a Model and Support Network for FASD
Trans-Divisional Research Emphasis

- Minority Health/Health Disparities
- Fetal Alcohol Spectrum Disorders
- Underage Drinking
Alcohol abuse and alcoholism (alcohol dependence) are collectively called Alcohol Use Disorders (AUDs).

Greatest Prevalence of Alcohol Abuse & Dependence Among Young People

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-17</td>
<td>3.9</td>
</tr>
<tr>
<td>18-20</td>
<td>12.5</td>
</tr>
<tr>
<td>21-24</td>
<td>10.9</td>
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<tr>
<td>25-29</td>
<td>7.6</td>
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<tr>
<td>30-34</td>
<td>7.3</td>
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<tr>
<td>35-39</td>
<td>6.6</td>
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<td>40-44</td>
<td>5.8</td>
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<td>45-49</td>
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<tr>
<td>50-54</td>
<td>4.9</td>
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<td>55-59</td>
<td>3.7</td>
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<tr>
<td>60-64</td>
<td>2.6</td>
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<tr>
<td>65-69</td>
<td>2.0</td>
</tr>
<tr>
<td>70+</td>
<td>2.1</td>
</tr>
</tbody>
</table>

DSM-IV Alcohol Dependence

DSM-IV Alcohol Abuse

0.1
Adolescents and Alcohol – A Public Health Problem?

A Period of Peer Pressure and Exposure to Alcohol

A Period of Rapid Changes in Brain Structure and Function
Underage Drinking a Priority at NIAAA

- Effects of adolescent binge drinking on brain development  PA12-027/28

- Screening and brief intervention in underage and young adult populations  PA-12-029/30/31

- Implications of new digital media use for underage drinking, drinking-related behaviors, and prevention research  PA-13-262

- Reducing health disparities among minority and underserved children  PA-14-033/4 Nursing lead IC
MHHD Underage Drinking Research

- Adolescent AOD Use Trajectories: The Role of Race and Ethnicity
- Alcohol Screening in an Ethnically Diverse Sample of Adolescents in Primary Care
- AMICA: Assessing Fit of Motivational Interviewing by Cultures with Adolescents
- Coping With Discrimination: Alcohol Use in Filipino/a American Young Adults
- Developmental Pathways to Substance Use Across European & Asian American Youth
- Under Age Drinking in Latino Youth
MHHD Underage Drinking Research

• A Dual Inoculation Approach to Alcohol Prevention Among African American Youth

• Preventing Underage Drinking by Southwest California Indians

• Alcohol abuse/dependence and its consequences for Indigenous adolescents

• Cherokee Nation Prevention Trial: Interactive Effects of Environment & SBIRT

• Tribal Colleges and Universities Behavior Wellness Study (TCU-BeWell)
Trans-Divisional Research Emphasis

- Minority Health/Health Disparities
- Fetal Alcohol Spectrum Disorders
- Underage Drinking

**HIV/AIDS and Alcohol Use**

- **Kendall Bryant**
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- **Deidra Roach – DTRR**
  droach@mail.nih.gov
- **Bob Freeman – DEPR**
  rfreeman@mail.nih.gov
MHHD ALCOHOL-RELATED HIV/AIDS RESEARCH

- Reducing Alcohol-Related HIV Risk in African American Females
- Structural-environmental factors, alcohol and HIV risk in Latino migrant laborers
- Computerized BI for Binge Drinking HIV At-Risk & Infected African-American Women
- Ondansetron Pharmacotherapy for Hazardous Drinking, HIV+, African-American Women
Trans-Divisional Research Emphasis

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- Underage Drinking
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• Genes X Environment
Pioneering studies of genetic vulnerability to alcohol use disorders were conducted in European American populations.

Need similar research with diverse populations; consider adding genetic component to survey, prevention and treatment intervention studies.

Encourage research on relative contribution of genetic & environmental contributions to alcohol use disorders.

Pharmacogenetics – personalized medicine.
Trans-Divisional Research Emphasis

- Minority Health/Health Disparities
- Fetal Alcohol Spectrum Disorders
- Underage Drinking
- HIV/AIDS and Alcohol Use
- Genes X Environment

- Medication Development & Pharmacogenetics Implementation
  Acceptability Research
Pharmacotherapy Research in MHHD Populations

- Ondansetron Pharmacotherapy for Hazardous Drinking, HIV+, African-American Women
- Alcohol Pharmacotherapies Among Released Prisoners
- Optimizing naltrexone for individuals of East Asian descent
MHHD Genetic Research

- RISK FACTORS FOR ALCOHOLISM IN NATIVE AMERICANS
- ALCOHOL DEPENDENCE IN AFRICAN AMERICANS: A CASE-CONTROL GENETIC STUDY
- GENETICS OF ALCOHOL DEPENDENCE IN AFRICAN-AMERICANS
- NARCH: To explore acceptability of new medication-based treatments, and pharmaco-genetic (PGX) testing among Alaska Natives
New priorities and developing areas

- Pharmacotherapy/pharmacogenetics
- Rigorous tests of research based interventions to prevent, reduce, and treat AUD (R34s!)
- Enhancing diversity of research workforce
- Violence & alcohol use – Especially gun violence
- Intersection of alcohol and drug research
- Addition of LGBT to diversity definition?
The Goal
Thank you for your attention!

Muchisimas gracias!

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