First, excerpts from September 2011 Director’s Report to the National Drug Abuse Advisory Council
In Memoriam

Charles Robert ("Bob") Schuster, Ph.D.
NIDA Director -- 1986 to 1992
Director,
Addiction Research Institute
Wayne State University

Joseph V. Brady, Ph.D.
President, Institute for
Behavior Resources
and Professor Emeritus,
Johns Hopkins University
School of Medicine

Dr. Tom Brady
Program Official,
Services Research
Branch, DESPR
## NIDA BUDGET

(Thousands)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011 PB</th>
<th>2011 Full Year CR</th>
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<td><strong>NonAIDS</strong></td>
<td>$719,556</td>
<td>$739,216</td>
<td>$763,626</td>
<td>$733,194</td>
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<td><strong>AIDS</strong></td>
<td>$312,901</td>
<td>$320,230</td>
<td>$330,452</td>
<td>$317,348</td>
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<td><strong>TOTAL</strong></td>
<td>$1,032,457</td>
<td>$1,059,446</td>
<td>$1,094,078</td>
<td>$1,050,542</td>
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<td>Increase Over Prior Year</td>
<td>+2.6%</td>
<td>+2.6%</td>
<td>+3.3%</td>
<td>-0.9%</td>
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Race, Ethnicity, and NIH Research Awards

Donna K. Ginther, Walter T. Schaffer, Joshua Schnell, Beth Masimore, Faye Liu, Laurel L. Haak, Raynard Kington

We investigated the association between a U.S. National Institutes of Health (NIH) R01 applicant self-identified race or ethnicity and the probability of receiving an award by using data from the NIH IMPAC II grant database, the Thomson Reuters Web of Science, and other sources. Although proposals with strong priority scores were equally likely to be funded regardless of race, we find that Asians are 4 percentage points and black or African-American applicants are 13 percentage points less likely to receive NIH investigator-initiated research funding compared with whites. After controlling for the applicant’s educational background, country of origin, training, previous research awards, publication record, and employer characteristics, we find that black applicants remain 10 percentage points less likely than whites to be awarded NIH research funding.

Data from 83,188 applications (40,069 PI) 2000-2006. Applications from Asian investigators were 16.2%, blacks 1.4%, Hispanics 3.2%, NA 0.05%, whites 69.9%, and other/unknown 9.2% of total applications.

Applications from black investigators were much less likely to be awarded an R01 than white applicants.

“the greatest differences between blacks and whites were in the effect of previous training and the probability of receiving a priority score. Although more research is needed to discern the basis for the award differences, it is possible that cumulative advantage may be involved.”
(1) examine NIDA’s efforts at supporting minority investigators and at recruiting minority subjects into NIDA-funded research studies and clinical trials,

(2) explore the extent to which NIDA has implemented each of the recommendations from the 2005 report of a previous council review.
Recent SBIRT Developments

• Working on options for adolescent drug abuse screening for medical settings:
  -- Scientific workshop, May 27, 2011
  -- Met with NIAAA staff to coordinate with their efforts on adolescent alcohol screening (will be releasing a new document/approach)

• Revised NIDAMed screening to improve efficiency by starting with single screening questions for illicit drug abuse and prescription drug abuse

• Working with ONDCP and HHS on proposals for including drug abuse screening as a standard part of electronic medical record systems
HAART as HIV Prevention

NIDA Avant Garde 2008: Dr. Julio Montaner, Univ. of British Columbia

Decline in Community Viral Load is Strongly Associated with Declining HIV Incidence among IDUs (ALIVE)

Montaner et al., Lancet 2008

GD Kirk, N Galais, J Astemborski, B Linas, D Celentano, SH Mehta, D Vlahov
2011 NIDA Director’s Innovator Award
Redonna Chandler, Ph.D.

Proposed and organized the grantees awarded funds RFA “HIV Seek, Test, and Treat in Criminal Justice Settings”: to harmonize and standardized their instruments to increase comparability across the studies.

State Receiving Funding
NIDA funded PI single award
NIDA + NIAID funded PI
NIMH funded PI
Jail/Prison Location1

Vietnam
Puerto Rico
Ongoing Harmonization Activities

- CCTN Common Assessment Battery
- Genetics Consortium
- Seek, Test, and Treat Grantees

www.phenx.org

- Task Force on Recommended Alcohol Questions
Harnessing Health Care Reform to Improve Substance Abuse Treatment

Wilson M. Compton, M.D., M.P.E.
Director, Division of Epidemiology, Services and Prevention Research
National Institute on Drug Abuse

5 October 2011
Outcomes can be improved by:

- Developing interventions that are highly effective as delivered
Translating Basic Science Discoveries Into New and Better Treatments
Treatments for Relapse Prevention: Medications

Non-Addicted Brain

Saliency → Drive → Memory → Control

Interfere with drug’s reinforcing effects
Vaccines
Enzymatic degradation
Naltrexone
DA D3 antagonists
CB₁ antagonists

Executive function/Inhibitory control
Biofeedback
Modafinil
Bupropion
Stimulants

Strengthen prefrontal-striatal communication
Adenosine
A₂ antagonists
DA D3 antagonists

Interfere with conditioned memories
Antiepileptic GVG
N-acetylcysteine

Teach new memories
Cycloserine

Counteract stress responses that lead to relapse
CRF antagonists
Orexin antagonists

STOP

GO
Strengthen prefrontal-striatal communication
Interfere with conditioned memories
Teach new memories
Counteract stress responses that lead to relapse

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Teach new memories
Cycloserine

Counteract stress responses that lead to relapse
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Orexin antagonists
Treatments for Relapse Prevention: Psychotherapies

Non-Addicted Brain

Control

Saliency

Drive

Memory

STOP

Interfere with drug’s reinforcing effects

Contingency Management

Executive function/Inhibitory control

Cognitive Therapy

Strengthen prefrontal-striatal communication

Motivation Therapies

Interfere with conditioned memories

Biofeedback Desensitization

Teach new memories

Behavioral Therapies

Counteract stress responses that lead to relapse

Relaxation Behavioral therapies

Contingency Management

Cognitive Therapy

Motivation Therapies

Biofeedback Desensitization

Behavioral Therapies

Relaxation Behavioral therapies
Promising Practice: Screening and Brief Intervention or Referral to Treatment (SBIRT)
U.S. Prevention Services Task Force (USPSTF)

• Evidence needed that intervention, including referral to treatment, impacts long-term morbidity and mortality within primary care populations

• Accepted outcomes for SBIRT include abstinence as a means to achieve health, social, legal, economic, and vocational outcomes
USPSTF - Current Policy Status of SBIRT:

Alcohol and Tobacco - SBIRT accepted


Illicit Drug Use - SBIRT evidence insufficient

Some Key Lessons from Alcohol and Tobacco SBIRT:

Impact of SBIRT varies according to Setting and Patient Characteristics. RT is not well addressed.
Strength of Evidence for Illicit Drugs: Promising - but sparse results

- Bernstein, et al. 2005: Randomized Controlled Trial (RCT)
- WHO study, 2008: Randomized Controlled Trial (RCT) in Multiple Sites Internationally
- Madras, Compton, Avula, et al. 2009: SAMHSA program evaluation of (SBIRT) for illicit drug and alcohol use at multiple sites: Comparison at intake and 6 months later
- Bernstein, et al. 2009: Adolescent RCT in ED, reduction in days MJ smoked at 12 mo after BI
Addressing Gap in Data

RCTs in Process from RFA-o8-021 SBIRT for Drug Abuse in General Medical Settings

Additional Studies Also Show the Potential for SBI Prevention Interventions at the Boundary of Illicit Drug Abuse and Other Behavioral Health Issues in General Medical Settings
Intervention for Rape Assault Victims Shows Impact on Marijuana Use


![Graph showing the impact of intervention for rape assault victims on marijuana use.](image-url)
Dr. Barbara Gerbert (and colleagues) have used the Video Doctor to screen for the following sensitive risk areas:

- HIV risk behaviors
- Nutrition
- Smoking
- Physical activity
- Alcohol use
- Intimate partner violence/
  Domestic violence
- Drugs use
Provider - Patient Intimate Partner Violence Discussions

Barbara Gerbert, Presented at NIH Implementation Conference, March 2010
Enhancement

• Start process with *Single Questions* (prior to ASSIST assessment of severity)
  ✓ Tobacco
  ✓ Alcohol
  ✓ Prescription Drugs
  ✓ Illegal Drugs

• Expand to include *Adolescents* (meeting May 27, 2011)

• Focusing on measuring illicit and prescription drug abuse for the *Electronic Health Record*
Electronic Health Record (EHR)

- Federal encouragement to adopt with "meaningful use"
- Multiple vendors developing EMR
  - Hospital based systems
  - Individual practice based systems
  - Interoperability (EMRs → EHR)
- Content
  - Clinical care
  - Research

Source: Robert Gore-Langton, PhD, NIDA CTN Data and Statistics Center, The EMMES Corporation
Electronic Health Record (EHR)

- Federal meaningful use criteria
  - Incentive through reimbursement
  - Incorporate concepts and data elements to qualify for meaningful use
- Example
  - Meaningful use stage 1 (2011-2012)
    - Screen for tobacco use in > 50% of clinic population
  - Meaningful use stage 2 (proposed, for 2013)
    - Screen for tobacco use in 80% of clinic population
    - Screen and brief intervention for alcohol use disorders
    - Screen for illicit and prescription drugs

Source: Robert Gore-Langton, PhD, NIDA CTN Data and Statistics Center, The EMMES Corporation
Initial Presentation
3 Screener Questions

1 Question
Alcohol Screener

1 Question
Tobacco Screener

1 Question
Drug Screener

NO

YES

Alcohol Assessment

Tobacco Assessment

Drug Severity Assessment

Further Assessment and/or Referral outside of primary care

Source: Robert Gore-Langton, PhD, NIDA CTN Data and Statistics Center, The EMMES Corporation
Summary of Future SBIRT Research:

- Enhance evidence on effectiveness of SBI models of care in a variety of general medical (and related) settings, and differing populations
- Develop and validate brief screening questionnaires, with technology, to detect (and intervene on) prescription drug abuse
- Test new technologies for implementing SBI (internet, tablet, PDA, etc.)
- Developing models for referral and/or direct treatment in general medical settings (the “RT” of SBIRT)
- Integrate SBIRT/Drugs with all behavioral health behaviors
Outcomes can be improved by:

- Developing interventions that are highly effective as delivered, or
- Implementing an effective intervention more widely.
Developing an intervention is only one part of translating research into practice.

- Access and Engagement
- Provider knowledge and behavior
- Organization Structure and Climate
- External Environment (stigma, financing)
Methadone Maintenance Dosing Improved, but standards often not met

Low-dose programs characterized by:

- More African-American & Latino patients
- More managed care (pre-authorization requirements)
- Staff endorsement of abstinence orientation, and rejection of HIV prevention activities (syringe exchange)

• Substantial investment in health services research aimed at improving the quality of substance abuse treatment

The vision is that Patient Outcomes can be improved by:

• Making effective interventions more widely available to patients

• Improving the system’s ability to deliver interventions
Policy Approaches Are Part of Services Research, but *first generation* US services research on policy approaches often...

- **Responds to** rather than *informs* policy, often with a great sense of urgency
  - Managed care (capitated payment)
  - Pay for performance
- Focuses on access, retention, and continuity
- Relies on administrative data, non-randomized designs, convenience samples, statistical methods that do not support causal inferences
• “Revising payment mechanisms to increase incentives for high quality care, such as paying for improved performance...”

• “Use of performance measures and standards of care to improve assessment of client needs, treatment progress, and outcomes...”

• “Quality-of-care indicators and performance measures at the individual and organizational levels of analysis”
Next Generation US Addiction Research on Performance Outcomes?

- Build on technology and practices in other areas of medicine
- Improving the clinical quality of care
- Informing consensus on the purpose of substance abuse treatment and relevant outcome measures
  - e.g. Item Response Theory Methods?
- Informing development of EHRs, and understanding data strengths and limitations

Key are proactive, science-based approaches to research design.
Current Issue: Health Care Reforms in the USA

• *Insurance Reforms include*
  – 2009 Enhanced parity of coverage of mental illnesses and substance use disorders (compared to coverage of other medical conditions)
  – 2010 Health care reform to reduce the number of uninsured persons
Moving beyond Parity — Mental Health and Addiction Care under the ACA

Colleen L. Barry, Ph.D., and Haiden A. Huskamp, Ph.D.
Impact of the Affordable Care Act (ACA) on Drug Abuse Prevention and Treatment Services

Relevant ACA Provisions and Environment:

- Extends coverage to more than 30 million persons, many at high risk for drug abuse
- Fundamentally changes the ways drug abuse prevention and treatment services are financed
- Focuses on screening and prevention
- Promotes use of electronic health records
- Emphasizes central role of primary care settings

All at a time of exciting scientific advance but extraordinary economic challenges
Substance Abuse Counseling in FHQCs

Each additional $1 million in federal funding lead to a 3.6% increase in the probability of offering substance abuse services.

Impact of the Affordable Care Act (ACA) on Drug Abuse Prevention and Treatment Services

Typical Challenges/Barriers:

• Legislation often has far-reaching consequences that go unstudied. ACA could cause:
  – Industry consolidation leading to a new cost structure
  – Greater reliance on FQHCs and other integrated health care settings for DA service delivery
  – Enhanced CMS role in defining/approving services
  – Changes in the types of interventions developed

Will this lead to a greater quantity of efficiently-produced, effective services that meet patients’ needs?
Impact of the Affordable Care Act (ACA) on Drug Abuse Prevention and Treatment Services

Portfolio Analysis:

• Only one NIDA-funded research project directly examines impact of ACA on treatment services
  – Roman (R37DA013110-11): Adoption of Innovations in Private A&D Centers

• Two grants examine impact of parity legislation on treatment services (RFA-DA-10-004):
  – Horgan (R01DA029316): Provision of Drug Abuse Treatment Services Under Parity
  – Meara (R01DA027414): Parity, Child Mental Health, and Substance Abuse
Impact of the Affordable Care Act (ACA) on Drug Abuse Prevention and Treatment Services

Research Topic Examples:

• Uptake rate for insurance among those with drug use disorders and related conditions (i.e. HIV), and how this is affected by outreach and types of offered coverage.

• Responsiveness of demand for services among the newly covered. Effect on types and quantity of services sought and responses by payers.

• Opportunities for economies of scale or scope and impact on access to services.
2012 RFA: Integrating Drug Abuse Prevention and Treatment into Primary Care Settings

• Integrating effective interventions into
  ✓ Prevention: Prenatal/infant, Family/Parenting, Community or Video/Computer interventions
  ✓ Treatment: Screening and brief interventions; Pharmacotherapy.

• Approaches
  ✓ New components to office practice or emergency medicine
  ✓ New/reconfigured services within existing teams
  ✓ New community partnerships

• Addressing Implementation Questions
  ✓ Policy and program change (e.g. HIPAA and PPACA issues)
  ✓ Training, supervision, QA/QC
  ✓ Cost effectiveness, funding & sustainability
PRIORITIES FOR NIH

- High Throughput Technologies
- Translational Research
- Health Care Reform
- Global Health
- Empowering the Biomedical Research Community
Summary

• Embedding substance interventions into the general health system to improve patient care and outcomes.
  – Addressing important and relevant patient outcomes.
  – Focus on SBIRT, medication assisted treatment, and clinician training.
  – Health care reforms in the USA provide new opportunities, especially for addiction services.