



NIH Scientific Management Review Board



Substance Use, Abuse, and Addiction Working Group

Report and Recommendations

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Working Group Charge

“... to recommend whether organizational change within NIH could further optimize research into substance use, abuse, and addiction and maximize human health and/or patient well being.”

Working Group Membership

Non-Federal

William Roper, MD, MPH
(Chair)

Deborah Powell, MD

**Eugene Washington, MD,
MSC**

Huda Zoghbi, MD

Norman Augustine
(ad hoc)

Federal

Josephine Briggs, MD

Richard Hodes, MD

Griffin Rodgers, MD, MACP

**Lawrence Tabak, DDS,
PhD**

Francis Collins, MD, PhD
(ex officio)

Process & Consultations

- **Since April 2009, the working group has held 12 teleconferences and 3 in-person meetings and has heard from:**
 - **Current and former NIAAA & NIDA Directors**
 - **Prevention and treatment specialists**
 - **Patient advocates**
 - **Policy specialists**
 - **Scientists with diverse areas of expertise**
 - **Leaders of academia**
 - **Industry representatives**
 - **Judicial system representatives**
 - **NIAAA and NIDA Advisory Councils**

Summary of Findings: Opportunities in Science and Public Health

- **Emerging scientific research indicates:**
 - **Similar reward pathways underlie compulsive behavior**
 - **Many substances that pose the potential for abuse may have similar effects on the brain**
 - **Common genetic sites associated with risk for disorders related to abuse**
 - **Addiction is a developmental disease, often beginning in adolescence with common early risk factors across substances**
- **Many substance abusers suffer from multiple drug dependencies and/or co-morbid conditions**

Research/Public Health Needs Not Currently Addressed – NIAAA Perspectives

- **A compendium of the pharmacokinetic and pharmacodynamic interactions between alcohol and the therapeutics used to treat general medical and psychiatric conditions (e.g., hypertension, diabetes, epilepsy, depression, etc.)**
- **Research on the generation of novel metabolites resulting from the in situ interaction of alcohol with opiates, stimulants, hallucinogens, or inhalants (e.g., the production of coco-ethylene) and their pharmacokinetic and pharmacodynamic properties and toxicity**
- **Mechanisms by which alcohol increases risk for certain cancers**
- **Encouraging the hesitant patient to seek treatment**

Research/Public Health Needs Not Currently Addressed – NIDA Perspectives

- **Lack of pharmaceutical industry interest in developing medications to treat addiction/alcoholism**
- **Insufficient involvement of the medical community in preventing and treating drug addiction and alcoholism**
- **Although treatments for substance abuse are available, they are not being widely used by those who need them**
- **There is a bottleneck in translating treatments for substance abuse from bench to bedside to the community**

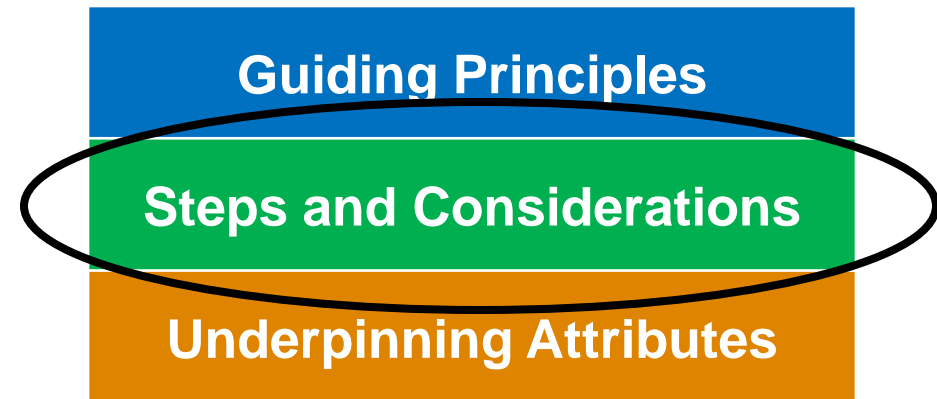
Summary of Findings: Stakeholder Perspectives

- Arguments in favor of **structural** reorganization
 - Scientific synergies
 - Underserved patient populations
 - Impediments to collaboration and integration
- Arguments in favor of **non-structural** reorganization
 - Potential loss of research
 - Establishment of a research dogma
 - Examples of current, successful collaborations
 - Licit vs. illicit substances

Deliberative Process: Framework

(DOCE Process for Considering Change)

- **STEP 1:**
Assess the need for change
- **STEP 2:**
Evaluate options for change
- **STEP 3:**
Implement and navigate the change

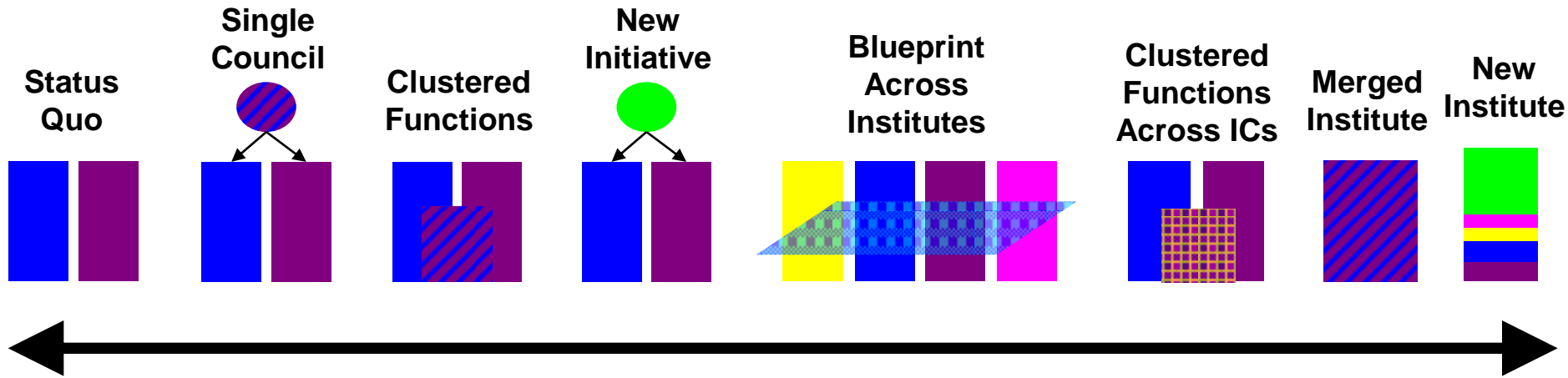


Deliberative Process: Framework

(DOCE Process for Considering Change)

- **Criteria for Assessing the Need for Change:**
 - **Immediate Crisis**
 - **Unaddressed Scientific Opportunities**
 - **Changes in Scientific Landscape**
 - **Evolving or Emergent Public Health Needs**
 - **Need for Improvements in Quality and/or Efficiency of Research**

Deliberative Process: Spectrum of Potential Options



CONCLUSIONS & RECOMMENDATIONS



Working Group Conclusions

- **Status quo is not ideal for fulfilling NIH mission and optimizing research into substance use, abuse and addiction**
- **Reorganization is needed for NIH to optimize science and best serve public health**

Identified Needs for Change

- **Unaddressed scientific opportunities, including:**
 - Preventing adolescent use, abuse, and addiction
 - Promote an understanding of both alcohol and drug abuse as diseases
 - Understanding drug-drug interactions
- **Changes in the scientific landscape, including:**
 - Advances in systems-level understanding that warrant a joint approach for many aspects of SUAA research
- **Emergent public health needs, including:**
 - Populations suffering from co-morbid conditions associated with substance use, abuse, and addiction
 - Rises in other forms of addiction (e.g. gambling, food, sex, etc.)
- **Needs for improvement in the quality and/or efficiency of research:**
 - Development of an integrated discipline of addiction research
 - Cross-training tracks need to be developed across fields

Key Features of Reorganization

- **Integration of addiction research portfolios across NIH**
 - **Scope of reorganization focused on addiction-related research**
 - **Broader than drug and alcohol research**
 - **Include other substances (e.g., tobacco) and behaviors (e.g., gambling)**
 - **Mission statement should promote**
 - **Unified vision for addiction research**
 - **Interdisciplinary approach**
 - **Flexibility for new areas of study**
 - **Multidisciplinary approach to training**

Key Features of Reorganization *(cont.)*

- **Commitment by all participants to success of reorganization**
 - Strong leadership from NIH Director & IC Directors
 - Participation and contribution from NIH staff, community of affected researchers, and other stakeholders
- **Functional integration**
 - Shared goals
 - Enhanced communication and collaboration
 - Engagement and participation from all relevant parties
 - Identification, creation, and sustention of synergies
 - Cultural shifts
 - Cannot be a change “in name only”

Two Recommended Approaches

- Reorganization **Option 1:**
 - Create a New Addiction Institute

- Reorganization **Option 2:**
 - Form a Trans-NIH Initiative on Addiction

Option 1: A New Addiction Institute

- **Integrate all relevant addiction portfolios from NIAAA, NIDA, and other ICs. Include, for example:**
 - Drug addiction research from NIDA
 - Alcohol addiction research from NIAAA
 - Tobacco addiction research from NCI
 - Gambling addiction research from NIDA and NIMH
- **Transfer non-addiction research portfolios at NIAAA and NIDA to other ICs, as appropriate. For example:**
 - Research on alcohol liver disease reassigned to NIDDK
 - Research on Fetal Alcohol Spectrum Disorders reassigned to NICHD

Option 1: A New Addiction Institute *(cont)*

- **Funding**
 - Addiction research funding relocated from existing ICs to the new institute
 - Funding for non-addiction and end-organ research programs relocated, as appropriate
 - No net change in level of funding for addiction research
- **Recruit new director**
- **Reassign current staff**
- **Develop a new strategic plan to advance addiction-related research**

Option 1: A New Addiction Institute *(cont)*

- **Establish a transition committee**
 - **Implement reorganization**
 - **Outline process for development of new mission statement**
 - **Perform NIH-wide portfolio analysis to identify relevant programs for inclusion**
 - **Develop organizational structure**
 - **Establish timelines**

Option 2: A New Trans-NIH Initiative on Addiction

- Modeled after the NIH Blueprint for Neuroscience Research or the Basic Behavioral and Social Science Opportunity Network (OppNet)
- Participation by NIAAA, NIDA, and all other ICs with relevant addiction portfolios. Include, for example:
 - NIDA (drug addiction)
 - NIAAA (alcohol addiction)
 - NCI (tobacco addiction)
 - NIMH (compulsive behaviors, gambling addiction)
 - NICHD (adolescent use)

Option 2: A New Trans-NIH Initiative on Addiction *(cont)*

- **Stable, dedicated funding**
 - May require a majority of each IC's addiction funds
 - Contributions from Office of the Director
 - Larger investment than, for example, Neuroscience Blueprint
- **Dedicated staff support provided by NIAAA and NIDA**
- **Evaluation to monitor initiative progress and success**

Option 2: A New Trans-NIH Initiative on Addiction *(cont)*

- **Organization**
 - **Steering committee to lead the initiative:**
 - **Include IC directors from respective Institutes**
 - **Co-chaired by 4-5 IC Directors, including NIDA and NIAAA**
 - **Working groups or coordinating committees carry out main work of initiative. For example:**
 - **Strategic planning activities**
 - **Identification of scientific and public health priority areas**
 - **Development of an evaluation plan**

Arguments in Favor of a New Institute

- **Changes in the scientific landscape, research opportunities, public health needs, and the potential for more efficient interdisciplinary research provide the rationale for change**
 - **These goals cannot be met through a trans-NIH initiative on addiction**
- **Divergence in scientific communities doing alcohol and drug research can only be remedied by establishing a new institute**
- **Provides a highly visible home for addiction research at NIH**
- **Enables effective promotion of research on polysubstance abuse, greater understanding of adolescent use, and development of a cohesive public health message that alcohol and illicit drugs can have similar effects on the brain and body**

Arguments in Favor of a New Trans-NIH Initiative

- **Changes in scientific landscape, research opportunities, public health needs, and the potential for more efficient research provide the rationale for change**
 - **These goals could be met through the trans-NIH initiative**
- **Functional strategies have worked in the past, in other scientific areas, with varying degrees of success**
- **Establishing a new Institute could create research gaps in understanding alcohol's ubiquitous effects on the body and unique factors contributing to its abuse**
- **Establishing a new institute constitutes a significant undertaking that will demand considerable effort and cause considerable disruption in the research community**
- **Trans-NIH initiative would maintain an inherently interdisciplinary component**

DISCUSSION

