

NIDA Strategic Planning Complex Patients Workgroup

April 27, 2015

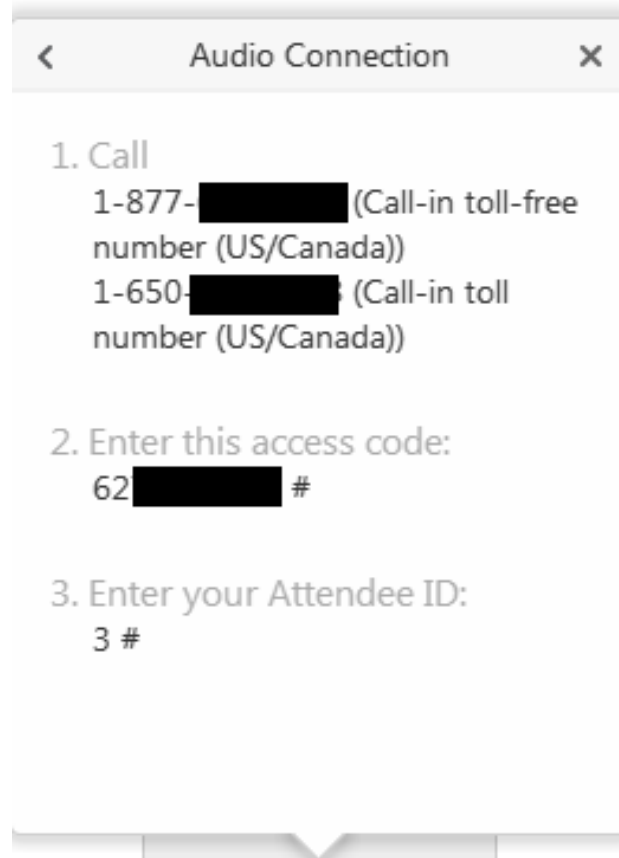
Logistics

- Workgroup members have been made **panelists** in this WebEx Event
- You should have received the special panelist WebEx access url by email
- **First**, join the WebEx Event by clicking on your panelist url and enter all passcodes and passwords contained in the email



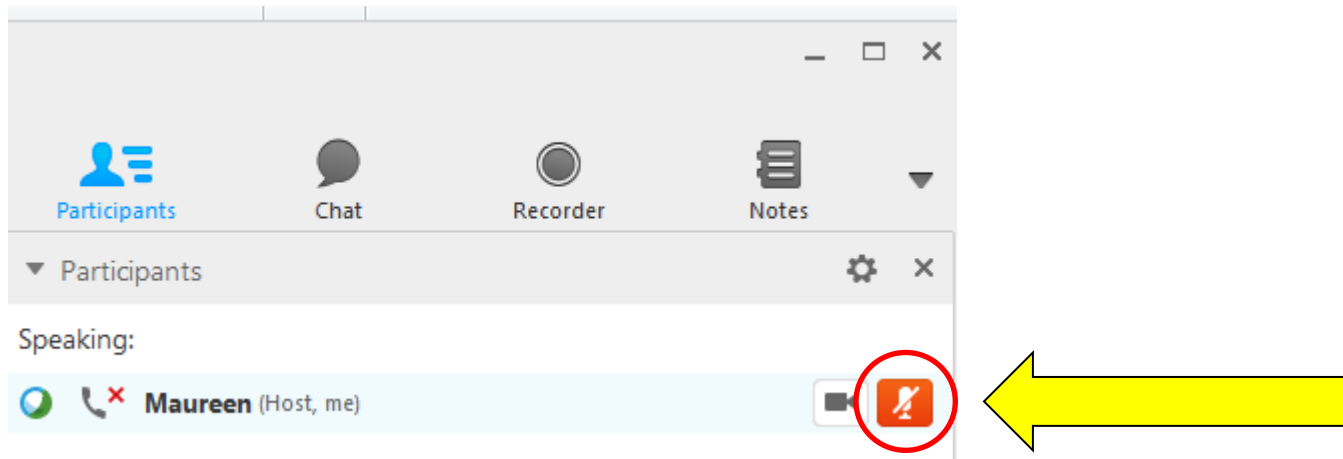
Logistics

- **Second**, join the WebEx Event by phone
 - Please dial in through the phone instead of using your computer and enter access code and attendee ID:



Logistics

- Third, you may mute yourself during the event to reduce background noise.
- We will mute panelists as necessary to control noise. Please **unmute to speak**.



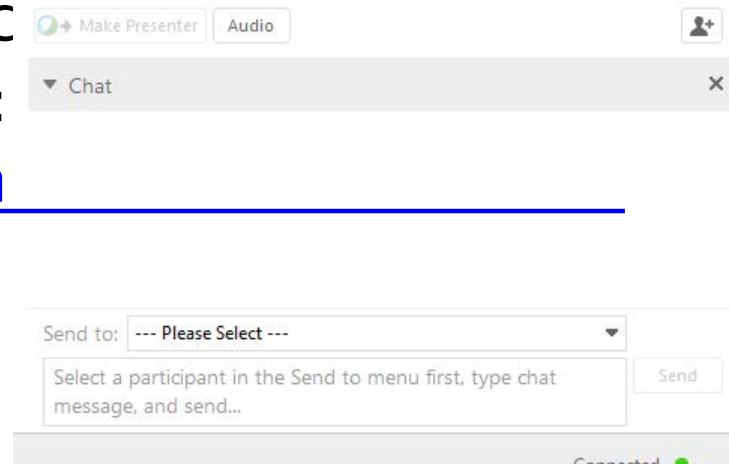
Logistics

- **Note:**

- All strategic planning WebEx events are open to the public and recorded
- Non-workgroup members (attendees) will be muted throughout the meeting until the end
 - Public comments and questions will be accepted via chat and phone during the last 5 minutes

- There is a note-taker on the call. Comments and questions will be posed on the website:

<http://www.drugabuse.gov/action/submit-comment>



Workgroup Members

External Representatives

- Marilyn Carroll – University of Minnesota
- Joseph Guydish – UCSF
- Jenae Neiderhiser – Penn State
- Connie Weisner – Kaiser Permanente Northern California
- Kathleen Brady – Medical University of South Carolina
- Lisa Metsch – Columbia University Mailman School of Public Health
- John Rotrosen – NYU
- Edward Nunes, Jr. – Columbia University College of Physicians and Surgeons

Workgroup Members

NIDA Representatives

- **Meyer Glantz**
- **David Liu**
- Geetha Subramaniam
- Karran Phillips
- Will Aklin
- Tanya Ramey
- Susan Volman
- Dave Thomas
- Jacques Normand

NIDA Strategic Planning

- RFI was released in December to solicit feedback from the field on NIDA's draft strategic priorities:
 - Basic Neuroscience: Improve our understanding of the basic science of drug use, addiction, vulnerability to addiction, and recovery
 - Clinical and Translational Science: Support the development of new and better interventions and treatments that incorporate the diverse needs of individuals with Substance Use Disorders (SUDs)
 - Public Health: Increase the public health impact of NIDA research and programs
 - Science Infrastructure: Enhance the national research infrastructure to support advancements in science
- **Comment period closed January 30th**
<http://grants.nih.gov/grants/guide/notice-files/NOT-DA-15-005.html>

Updating the NIDA Strategic Plan

- Next steps:
 - Bold goals challenge: Will award up to \$10k in prizes for top ideas
 - Priority Area Workgroups will be formed to gather input from internal and external experts on cross divisional topics to develop strategic priorities for:
 - Big Data
 - Gene x Environment x Development interactions
 - Complex patients (multiple comorbidities)
 - Division strategic plans currently being developed

Timeline

- RFI – Closed Jan 30, 2015
 - Review comments – By Mar 6, 2015
- Priority Area Workgroups – February through July
- Bold Goals Challenge
 - Winner selection – By August
- Draft Strategic Plan out for public comment– Summer 2015
- Final Strategic Plan – Fall 2015

Workgroup Charge

- **Complex Patients: How to foster research to address complex patients (i.e. those with multiple chronic conditions) and populations (i.e. adolescents, geriatric)**
- Addressing neurological, cognitive, and behavioral processes across the trajectory of addiction, recovery and relapse
- Phenotypic characterization of patients and developing animal models relevant to the full range of drug use trajectory and phenotypes

Workgroup Charge

- The workgroup should also address these cross cutting themes as appropriate
 - Training needs (training of clinicians was a common theme in RFI comments)
 - Addressing sex and gender issues
 - How to leverage technology advances
 - Leveraging innovations from other fields

Workgroup Charge

- To develop recommendations on strategic priorities for fostering research to address complex patients.
- Deliverable: 3-5 page summary of recommended priorities and related action items for NIDA to improve research related to complex patients in the next 5 years
- To be completed by Friday June 26th

Workgroup Charge

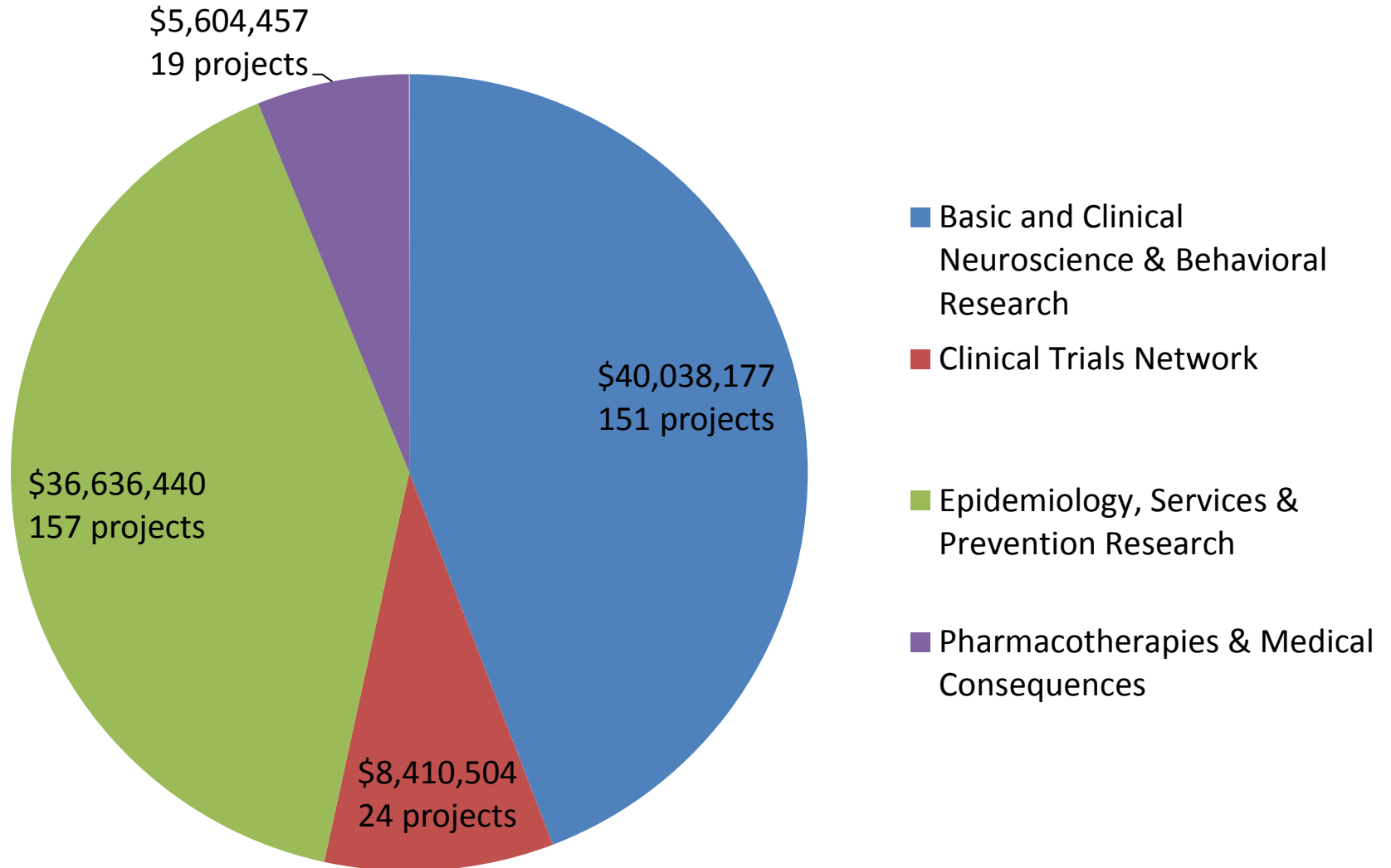
- Recommendations should focus on strategic goals within the area of Complex Patients and priority objectives for addressing those goals over the next 5 years
- Example (just illustrative):
 - Goal: Leveraging health reform associated changes to address patients with multiple co-morbidities
 - Objectives:
 - Foster research on impact of new coordinated care models (ACOs, PCMHs) on SUD treatment
 - Support more pragmatic trials on patients with multiple comorbidities
 - Foster use of common data standards related to SUD in clinical records

Topics from RFI

- Pediatric patients
 - neonatal
 - adolescents
- Geriatric patients
- Pregnant and post-partum substance use
- Multiple chronic conditions
 - Mental illness
 - Physical illness
- Adherence issues
- Leveraging health reform
 - SUD workforce issues
 - Integrated care
- Non treatment seekers
- Phenotypic characterization
- Recovery issues
- Addressing trauma
- Role of families in treatment and recovery
- Pragmatic trials

NIDA Comorbidity (Active Grants)

\$91M as of April 7, 2015



Basic and Clinical Neuroscience & Behavioral Research

- Interactions of molecular pathways in SUD and comorbid conditions
- Neural activity patterns associated with co-occurrence of SUD and mental disease/HIV (for PTSD and smoking, trauma and SUD, mental illness and SUD, pain and opioid use disorder)
- Behavioral interventions for PTSD and smoking, trauma and SUD, mental illness and SUD, pain and opioid use disorder

Clinical Trials Network

- CTN comprises 13 regional nodes, a Clinical Coordinating Center, and two Data and Statistical Centers to test therapies and facilitate integration of evidence-based practices into treatment



Epidemiology, Services & Prevention Research

- Statistical modeling of genetic, environmental, and social factors in the development of SUD
- Modeling of gene x environment interactions in SUD, and of interactions of psychiatric symptoms and SUD
- Descriptive, longitudinal studies of early risk factors on drug use
- Analysis of factors that contribute to transmission of IDU-associated infection

Pharmacotherapies and Medical Consequences



- Centers for AIDS Research, co-funded by nine NIH Institutes
- Pharmacotherapies for cocaine, tobacco, polysubstance use

Discussion of specific gaps/priorities

Discussion of specific gaps/priorities

- Complexity and Comorbidities
- Phenotypic Characterization of Patients
- Specific Areas of Complexity/Comorbidities

Complexity and Comorbidities

- In order to efficiently prevent and treat substance abuse, we need to better understand the underlying complex interaction of factors that influence drug use initiation and progression over time. These range from individual patient characteristics such as psychiatric or medical comorbidity, SES, through network factors such as social and drug networks, and system level factors such as access to health care, reimbursement and structural factors such as stable housing, incarceration, etc.
- Research cannot address substance abuse just as a single disease; it must also address many co-morbidities that occur in conjunction with substance use disorders, e.g., infectious diseases (e.g., HIV, sexually transmitted infections (STIs), endocarditis, HCV, TB), neurological and cognitive impairments/deficits, psychiatric disorders, cardiovascular disease, and accelerated aging.

Complexity and Comorbidities

- Research geared towards complex patients with addiction should be multidisciplinary and take into account the resiliency and fragility of this population, consider unexpected responses to common medications and treatments, address issues of nonadherence (to medications, health recommendations, and care appointments), and examine and address the social determinants of addiction including but not limited to the distribution of economic and social conditions (social gradients, stress, early childhood development, social exclusion, social support/safety network, housing and/or food insecurity, unemployment/job security, working conditions) and their impact on individual and group differences in addiction status as well as individual factors like risk behavior and genetics.

Complexity and Comorbidities

- Research is needed to develop prevention and treatment modalities that enable tailoring of intervention intensity and emphasis to different patient populations and settings.
 - Intersecting biological, social, and environmental factors that influence substance use initiation and progression need to be addressed simultaneously.

Complexity and Comorbidities

- We need to determine how best to aggregate and harmonize big data across large studies to understand and address comorbidity, in collaboration with CRAN partners (NIDA, NIAAA, NCI and perhaps NIMH). These efforts would encompass many types of biomedical big data, including clinical health, imaging, genetic and other molecular, phenotypic, exposure, behavioral, and other types of data.

Complexity and Comorbidities

- Research may be needed to determine the whether current interventions effectively address the complex needs of SUD patients, and whether treatment providers have adequate training and qualifications to provide effective diagnosis and treatment for SUD patients. Research to further develop treatments for complex patients, to determine the most effective role for self-help and support groups, and to foster integrated services for complex patients is also needed.
 - Research should also address issues of increased clinician effort, health care resources, and family and community support in an effort to improve the quality of care and decrease unnecessary health care utilization when working with complex patients with addiction.

Phenotypic Characterization of Patients

- A concerted research effort is needed to develop, for research purposes, new ways of characterizing differential trajectories of substance abuse, addiction, and recovery based on behavioral processes and cognitive and neurobiological measures.
- One approach to the above is to model and/or build upon the NIMH RDoC framework, a plan that has been proposed for alcohol use disorder as AARDoC (Alcohol Addiction RDoC: Litten et al., 2015). An element of this approach would be to pilot cross-diagnostic assessment and characterization of participants in SUD clinical trials.
- Broadening empirically based characterizations of SUD patients to include the commonality of co-occurring conditions and other complexities and their implications is needed.

Phenotypic Characterization of Patients

- Research to better characterize non-treatment populations of individuals with significant and problematic substance use behavior and to increase their participation in treatment is needed as well as research to better understand non-treatment SUD populations patterns of function and their substance use trajectories.
- Research is needed to explore differing models of addiction and substance use disorders and to consider which are most useful in different research and intervention circumstances.

Specific Areas of Complexity/Comorbidity

- Cognitive functions are directly involved in decision-making, response inhibition, planning and memory. They also are indirectly involved in successful encoding and retrieval of information, attentional control, affective responsiveness, and self-awareness. Because many treatments for substance abuse focus on changing behavior, developing skills to prevent relapse and promotion of psychosocial adaptation—activities that clearly require cognitive processing—research is needed to develop effective methods for moderating and/or reversing an identified cognitive deficit (e.g., deficits in impulsivity, learning, inhibitory control, or decision making) in a drug-dependent patient population, which could potentially improve one or more drug abuse treatment outcomes.
- Research is needed to examine the intersection of traumatic brain injury, substance use and abuse with or without pain.