

## Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development – A Workshop

December 12, 2023, 9:00 am – 5:00 pm (ET)

December 13, 2023, 8:30 am – 2:00 pm (ET)

Keck Center, Keck 100  
500 Fifth St. NW, Washington, DC, 20001

To watch the livestream, please visit the workshop page [here](#).

### PURPOSE

A two-day public workshop, convened by the National Academies of Sciences, Engineering, and Medicine's Forum on Drug Discovery, Development, and Translation; and Forum on Neuroscience and Nervous System Disorders; will provide an opportunity for professionals who typically diagnose attention-deficit/hyperactivity disorder (ADHD), drug developers, researchers, regulators, patients, and other stakeholders to examine the diagnosis and treatment of adults with ADHD.

The public workshop will feature invited presentations and discussions to:

- Discuss the criteria for diagnosis and treatment of adults with ADHD, taking into consideration health disparities and perspectives of people with lived experience.
- Consider what is known and unknown about the risks and benefits of ADHD medication use in adult populations.
- Share perspectives on the causes, perceptions, consequences, and health equity implications of non-medical use of prescription stimulants, including misuse potential, overdose, and toxicity.
- Explore challenges and opportunities for the development of new and improved therapeutics for the treatment of ADHD.
- Consider potential strategies for assessing the risks and benefits of ADHD medication treatment in adult populations, including the intersection with opioid use, that support the public health goal of safely and effectively treating adults with ADHD.

## DAY 1: TUESDAY, DECEMBER 12, 2023

### 9:00 am WELCOME, OPENING REMARKS, AND SETTING THE STAGE

CRAIG B.H. SURMAN, *Workshop Co-chair*  
Director, Clinical and Research Program in Adult ADHD  
Massachusetts General Hospital  
Associate Professor of Psychiatry  
Harvard Medical School

### 9:35 am REGULATORY OVERVIEW

MARTA SOKOLOWSKA  
Deputy Center Director  
Substance Use and Behavioral Health  
Center for Drug Evaluation and Research  
U.S. Food and Drug Administration

### 9:55 am SESSION I – DIAGNOSIS OF ADULTS WITH ADHD

#### Session Objectives:

- Discuss the criteria and available tools for diagnosis of ADHD in adults (including DSM 5 criteria, assessment tools, best practices in diagnosing the condition);
- Explore gaps and barriers when it comes to appropriate diagnosis of ADHD for different adult populations; and
- Consider the long-term public health implications of underdiagnosing, differential diagnosing, and misdiagnosing ADHD in adults and considerations for different populations.

### 9:55 am Presentation

ANN CHILDRESS  
President  
Center for Psychiatry and Behavioral Medicine, Inc.  
President  
The American Professional Society for ADHD and Related Disorders

### 10:20 am Panel Discussion

*Moderator: Steve Lee, University of California, Los Angeles*

#### *Clinical Diagnosis Perspective*

NAPOLEON HIGGINS  
President and Chief Executive Officer  
Bay Pointe Behavioral Health

#### *Clinical Screening Perspective*

SARA L. WEISENBACH  
Associate Professor of Psychology in Psychiatry, Harvard Medical School  
President, American Psychological Association, Society for Clinical Neuropsychology (Division 40)  
Chief of Neuropsychology  
McLean Hospital

#### *Lived Experience Perspective*

TAMARA ROSIER  
Owner, ADHD Center of West Michigan  
President  
ADHD Coaches Organization

*Research Perspective*

MARGARET SIBLEY  
Professor of Psychiatry and Behavioral Sciences  
University of Washington School of Medicine

Discussion Questions:

1. Why do clinicians find it challenging to diagnose ADHD in adults (e.g., co-morbidities, differential diagnosis with other conditions such as depression, anxiety, other psychiatric conditions, and/or COVID-19)?
2. What barriers do adults experience when seeking a diagnosis of ADHD, particularly those from minority and medically underserved communities?
3. How does an ADHD diagnosis, or the lack of one, impact individuals across adulthood?
4. How is ADHD diagnosed under the DSM 5 criteria?

**11:20 am**      **COFFEE BREAK**

**11:50 am**      **SESSION II – MEDICATION OPTIONS FOR ADULTS WITH ADHD: RISKS AND BENEFITS**

Session Objectives:

- Consider what is known and unknown about the risks and benefits of ADHD medication use in adult populations;
- Consider the public health implications for potential overprescribing of Schedule II stimulants;
- Discuss the barriers (e.g., legal, regulatory, social, cultural) to access of equitable treatment for adults with ADHD; and
- Explore approaches for alternative treatment options for adults with ADHD (e.g., non-pharmacological interventions, re-tooling of existing medications, new drug development) that may reduce the risk of harm to patients, that take into account social and cultural considerations.

**11:50 am**      **Presentation**

DAVID W. GOODMAN  
Assistant Professor of Psychiatry and Behavioral Sciences  
Johns Hopkins University School of Medicine

**12:10 pm**      **Panel Discussion**

*Moderator: James (Jimmy) Leonard, Maryland Poison Center; University of Maryland School of Pharmacy*

*Lived Experience Perspective*

DUANE GORDON  
President  
Attention Deficit Disorder Association

*Clinical/Pharmacology Perspective (Medication Treatments)*

ANGELA MAHOME  
Staff Psychiatrist  
The University of Chicago

*Research/Clinical Perspective (Nonmedication Treatments/CBT)*

J. RUSSELL RAMSAY  
Independent Practice  
Former Co-Founder, Co-Director, Adult ADHD Treatment and Research Program  
University of Pennsylvania

*Regulatory Perspective*

TIFFANY FARCHIONE  
Director, Division of Psychiatry  
Center for Drug Evaluation and Research, FDA

Discussion Questions:

1. What is known and unknown about the risks and benefits of medication (stimulant and non-stimulant) use for the treatment of ADHD in adult populations?
2. What are the primary barriers (e.g., legal, regulatory, social, cultural) to appropriate treatment for adults with ADHD and how have these barriers been overcome? What are the health equity implications of these approaches?
3. How can prescribers, clinicians, and other providers be better informed regarding the treatment options available to their patients?

**1:10 pm**      **LUNCH BREAK**

**2:00 pm**      **SESSION III – IMPLICATIONS FOR DRUG DEVELOPMENT**

Session Objectives:

- Consider areas of unmet treatment needs for adults with ADHD that could potentially be addressed through new and/or improved therapeutics; and
- Explore challenges and opportunities for the development of new and improved therapeutics for the treatment of ADHD, including options that may reduce the risk of diversion.

**2:00 pm**      **Presentation**

CRAIG BERRIDGE  
The Patricia Goldman-Rakic Professor of Psychology  
University of Wisconsin, Madison

**2:20 pm**      **Panel Discussion**

*Moderator: Stevin Zorn, MindImmune Therapeutics*

*Industry Perspective*

JONATHAN RUBIN  
Chief Medical Officer and Senior Vice President of Research & Development  
Supernus Pharmaceuticals

*Neurobiology/Pharmacology Perspective*

AMY ARNSTEN  
Albert E. Kent Professor of Neuroscience and Professor of Psychology  
Yale School of Medicine

*Regulatory Perspective*

ERIKA LIETZAN  
William H. Pittman Professor of Law & Timothy J. Heinsz Professor of Law  
University of Missouri School of Law

Discussion Questions:

1. How do available therapeutic treatment options meet the needs of adults with ADHD? What are the gaps/unmet medical needs?
2. How might alternative treatment options for adults with ADHD reduce the risk of harms, such as misuse potential, overdose, and toxicity?
3. What are the barriers and opportunities to the development of new medications for treating adults with ADHD?

**3:20 pm**      **COFFEE BREAK**

**3:50 pm**      **SESSION IV – DAY 1 SYNTHESIS AND DISCUSSION**

Session Objective:

- Discuss key themes from previous workshop sessions;
- Lay out questions to be addressed; and
- Consider next step opportunities for improving the diagnosis and treatment of adults with ADHD; implications for drug development.

**3:50 pm**      **Panel Discussion**

*Moderator: Craig B. H. Surman, Massachusetts General Hospital; Harvard Medical School*

*Pharmacology Perspective*

ALMUT WINTERSTEIN  
Director, Center for Drug Evaluation and Safety (CoDES) and Consortium for Medical Marijuana  
Clinical Outcomes Research  
Distinguished Professor, Pharmaceutical Outcomes and Policy  
University of Florida

*Industry Perspective*

DAVID BAKER  
Former Pharmaceutical Executive – Shire, Alcobra, Vallon Pharmaceuticals  
Board Member  
Edge Foundation

*Lived Experience Perspective*

KOFI OBENG  
Executive Director  
Attention Deficit Disorder Association

*Resources and Education Perspective*

SUNNY PATEL  
Senior Advisor for Children, Youth and Families  
SAMHSA

*Research Perspective*

MARY SOLANTO  
Professor of Pediatrics and Psychiatry  
Zucker School of Medicine at Hofstra-Northwell

Discussion Questions:

1. Based on the day's sessions, what are the main themes you heard regarding the diagnosis, treatment, and drug development for ADHD in adult populations? What questions remain?
2. How can the use of a health equity framework help the those with adult ADHD, health professionals, and others better understand the social, political, economic, and environmental factors impacting the diagnosis and treatment of adult ADHD?
3. How do we bridge the gap from where we are now to where we want to be? What is needed and from whom?
4. What are some key things from today's sessions we should keep in mind as we move into Day 2?

**4:35 pm**      **Audience Q&A**

**4:50 pm**      **DAY 1 CLOSING REMARKS**

CARLOS BLANCO, *Workshop Co-chair*  
Director, Division of Epidemiology, Services, and Prevention Research  
National Institute on Drug Abuse, NIH

**5:00 pm**      **ADJOURN WORKSHOP DAY 1**

**5:00 pm**      **RECEPTION**

## DAY 2: WEDNESDAY, DECEMBER 13, 2023

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### 8:30 am OPENING REMARKS

CARLOS BLANCO, *Workshop Co-chair*  
Director, Division of Epidemiology, Services, and Prevention Research  
National Institute on Drug Abuse, NIH

### 8:40 am FIRESIDE CHAT

EVELYN POLK GREEN  
Immediate Past President;  
Attention Deficit Disorder Association  
Past President;  
Children & Adults with Attention Deficit/Hyperactivity Disorder

### 9:20 am SESSION V – ENABLING ACCESS TO RESOURCES AND SHARED DECISION MAKING FOR ADULTS WITH ADHD AND THEIR PROVIDERS

#### Session Objective:

- Share perspectives and available resources for prescribers, clinicians, and patients on the risks and benefits of ADHD medication use in adults, particularly for underserved populations;
- Discuss practical approaches that have helped overcome barriers (e.g., stigma, misdiagnosis) to appropriate diagnosis and treatment of adults with ADHD; and
- Consider opportunities to enable shared decision making between patients and their providers regarding the diagnosis and treatment of ADHD.

### 9:20 am Presentation

MARK OLFSON  
Professor of Psychiatry, Medicine, and Law;  
Professor of Epidemiology  
Columbia University

### 9:40 am Presentation

LARA ROBINSON  
Behavioral Scientist  
National Center on Birth Defects and Developmental Disabilities, CDC

### 9:55 am Panel Discussion

*Moderator: Andrea Chronis-Tuscano, University of Maryland, Department of Psychology*

*Lived Experience Perspective*  
KYLIE BARRON

*Clinical Perspective*  
BRANDI WALKER  
Chief Executive Officer  
Marie Pauline Consulting, LLC

*Psychiatrist Perspective*

BENJAMIN CHEYETTE

Psychiatrist

Director of ADHD Programming

Mindful Health Solutions

*Telehealth and Social Media Perspective*

JESSICA GOLD

Associate Professor, Department of Psychiatry, University of Tennessee Health and Science Center

Chief Wellness Officer

University of Tennessee (UT) System

(As of 2/1/2024)

Discussion Questions:

1. What methods and/or systems are in place to support prescribers, clinicians, and other providers who diagnose and treat adults with ADHD? What else is needed?
2. Are there lessons learned from the diagnosis and treatment of pediatric populations that may be applicable for adult populations?
3. What approaches have and/or could help support adults with ADHD make informed decisions about the risks and benefits of ADHD medication use?
4. How can we best disseminate evidence-based educational materials/content about adult ADHD to patients (including those from diverse backgrounds) so that they can engage in informed discussions around their care?

10:55 am

**SESSION VI – PUBLIC HEALTH CONSIDERATIONS AND HARM REDUCTION STRATEGIES FOR ADHD MEDICATION USE**

Session Objectives:

- Share perspectives on the causes, perceptions, consequences, and health equity implications of non-medical use of prescription stimulants;
- Discuss what is known and unknown about the intersection of ADHD medication use (medical and non-medical) and opioid use; and
- Consider how strategies to reduce the misuse of ADHD medications could impact public health (e.g., limiting patient access to medication, exacerbating existing health inequities).

10:55 am

**Presentation**

BROOKE MOLINA

Professor of Psychiatry, Psychology, Pediatrics, Clinical & Translational Science

University of Pittsburgh

11:15 am

**Panel Discussion**

*Moderator: Taleed El-Sabawi, Florida International University*

*Clinical Perspective*

ROBIN WEISS

Private Practice of Psychiatry

Past President

Maryland Psychiatric Society



*Lived Experience Perspective*

PATRICK KELLY

*Research/Community Health Perspective*

RYAN MCNEIL

Associate Professor, Director of Harm Reduction Research

Yale School of Medicine

*Research/Clinical Perspective*

KEVIN ANTSHEL

Professor of Psychology and Associate Department Chair

Syracuse University

Discussion Questions:

1. What is known and unknown about the intersection of ADHD medication use (medical and non-medical) and opioid use?
2. What are public health and health equity implications of not appropriately treating adults with ADHD?
3. What strategies (e.g., public health efforts, regulatory policies) have been deployed to reduce the misuse of ADHD medications and what was the impact on people with ADHD? What was the impact on public health?

12:15 pm

**COFFEE BREAK**

12:45 pm

**SESSION VII – DAY 2 SYNTHESIS AND DISCUSSION**

Session Objectives:

- Discuss key themes from previous workshop sessions; and
- Consider next step opportunities for improving the diagnosis and treatment of adults with ADHD.

12:45 pm

**Panel Discussion**

*Moderator: Carlos Blanco, National Institute on Drug Abuse, NIH*

*Clinical Perspective- ADHD in underserved populations*

JOSEPH SCHATZ

Director, Psychiatric/Mental Health Nurse Practitioner Track

University of Pennsylvania School of Nursing

*Lived Experience Perspective*

TALEED EL-SABAWI

Assistant Professor of Law

Florida International University

*Pharmacology Perspective*

MATTHEW RUDORFER

Chief, Psychopharmacology, Somatic, and Integrated Treatment Research Program

National Institute of Mental Health, NIH

*Research Perspective*

AMELIA ARRIA

Director, Center on Young Adult Health and Development  
Professor, Department of Behavioral and Community Health  
University of Maryland School of Public Health

*Family Medicine Perspective*

LATASHA SELIBY PERKINS

Assistant Professor of Medicine  
Georgetown University School of Medicine

Discussion Questions:

1. Based on the day's sessions, what are the main themes you heard regarding enabling access to resources, shared decision making, and strategies to reduce the misuse of ADHD medications for adults with ADHD? What questions remain?
2. How can the use of a health equity framework help those with adult ADHD, health professionals, and others better understand the social, political, economic, and environmental factors impacting the health and overall well-being of adults ADHD?
3. Considering everything you've heard over the past day and a half, what is important for the FDA to know as it relates to diagnosis, treatment, and drug development for adult ADHD?

1:35 pm

**Audience Q&A**

1:50 pm

**CLOSING REMARKS**

MARTA SOKOLOWSKA

Deputy Center Director  
Substance Use and Behavioral Health  
Center for Drug Evaluation and Research  
U.S. Food and Drug Administration

CRAIG B.H. SURMAN, *Workshop Co-chair*

Director, Clinical and Research Program in Adult ADHD  
Massachusetts General Hospital  
Associate Professor of Psychiatry  
Harvard Medical School

2:00 pm

**ADJOURN DAY 2**