

Director's Report to the National Advisory Council on Drug Abuse

September 10, 2020

Nora D. Volkow, M.D., Director

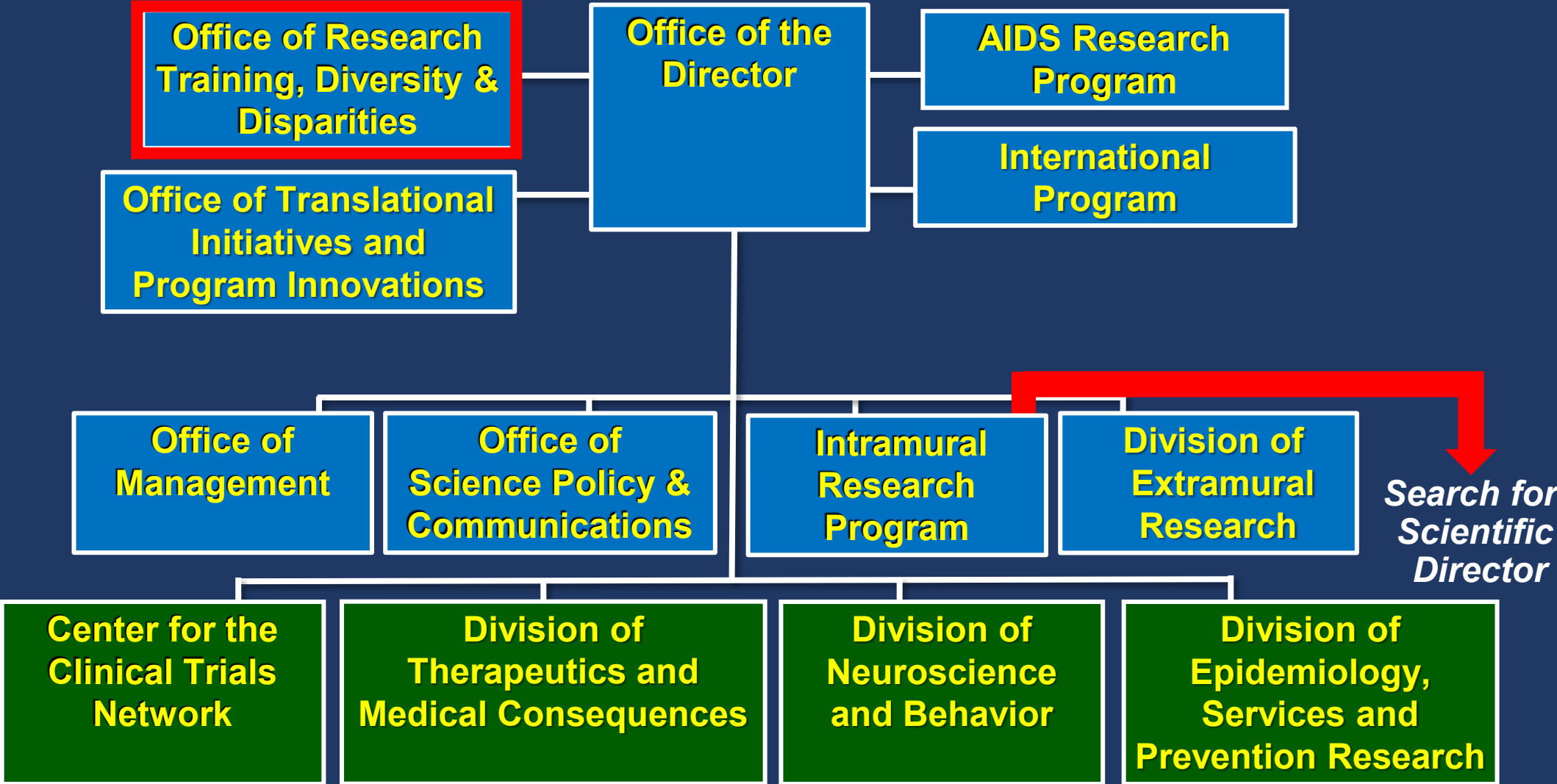


National Institute
on Drug Abuse



@NIDAnews

NIDA



NIDA Budget

	FY 2019 Actuals (\$k)	FY 2020 Enacted (\$k)	FY 2021 PB (\$k)
Base	\$1,150,367	\$1,191,403	\$1,165,449
HEAL	\$470,967*	\$266,321	\$266,321
Total	\$1,621,334*	\$1,457,724	\$1,431,770

*Reflects total HEAL funding obligated in FY 19, regardless of source. Includes 1-year funds provided in FY 19 and balance of 2-year funds provided in FY 18.

Milestone highlights

Rapid Standup & Execution

EARLY APRIL

FNIH (Foundation for the NIH) collaborates with NIH to launch the Accelerating COVID-19 Therapeutic Interventions & Vaccines (ACTIV) Public-Private Partnership

EARLY JUNE

Ramp-up of additional Rapid Acceleration of Diagnostics (RADxSM) programs

EARLY JULY

RADx Data Hub effort and RADxSM-ATP program kick off

LATE JULY

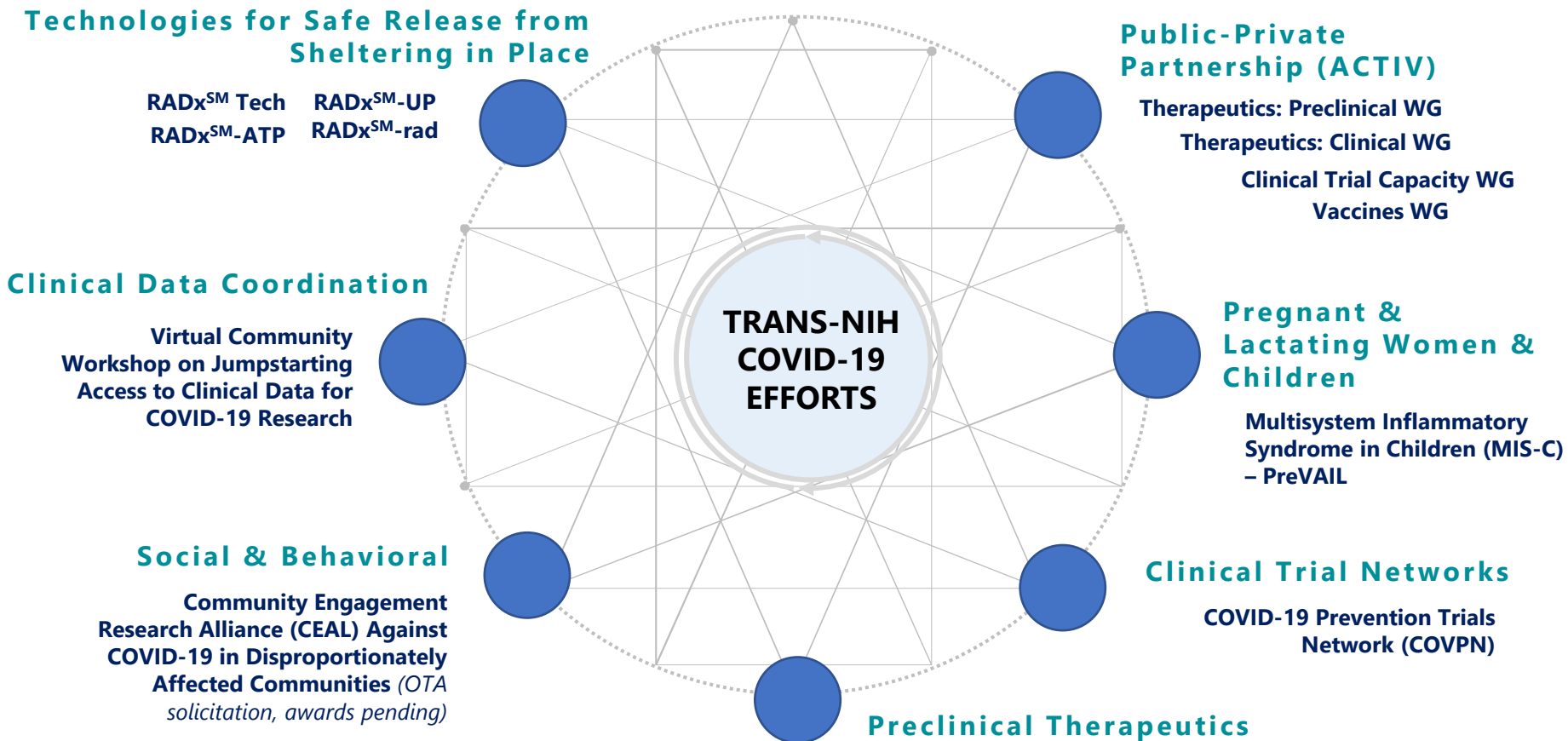
Jumpstarting Access to Clinical Data for COVID-19 Research Virtual Workshop

EARLY AUGUST

Kickoff of increased focus on community engagement efforts & PreVAIl announced

TRANS-NIH COVID-19 EFFORTS

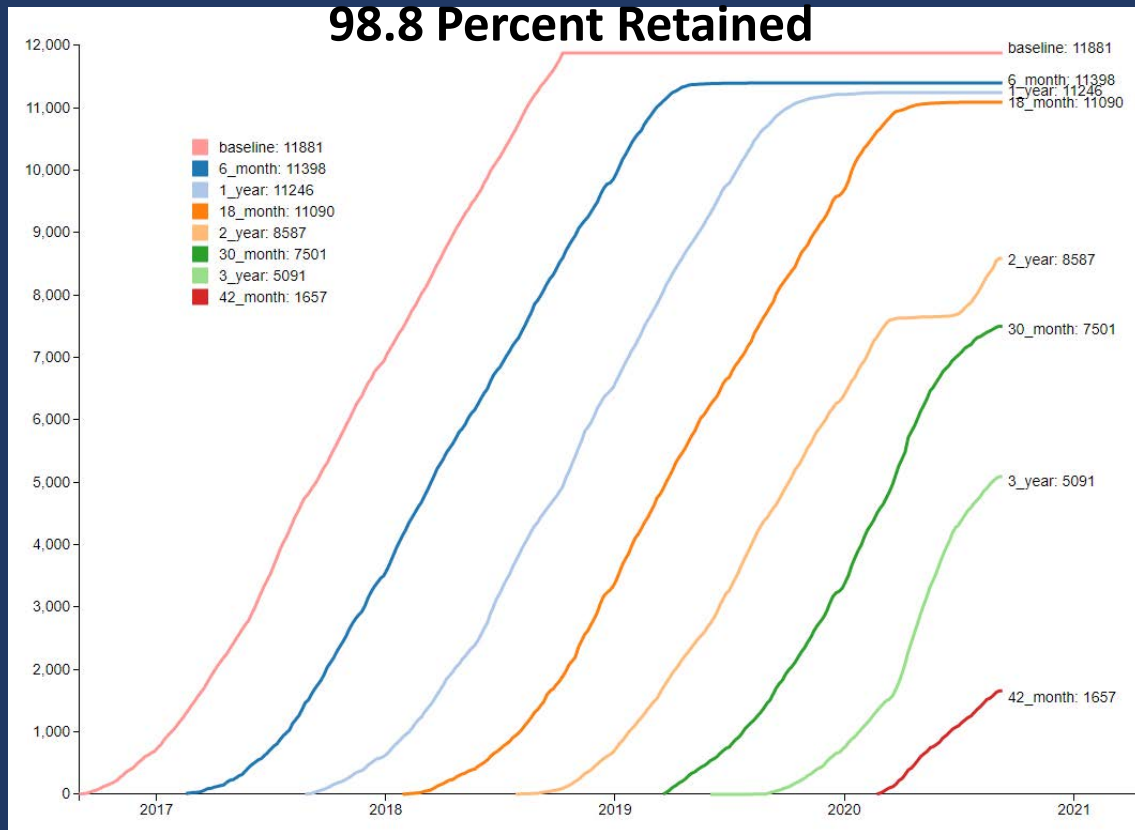
In response to COVID-19, NIH has **multi-IC collaborative** efforts to address interdisciplinary challenges associated with the pandemic



These efforts directly support the NIH's **Strategic Priorities** outlined in its **Strategic Plan for COVID-19 Research**:



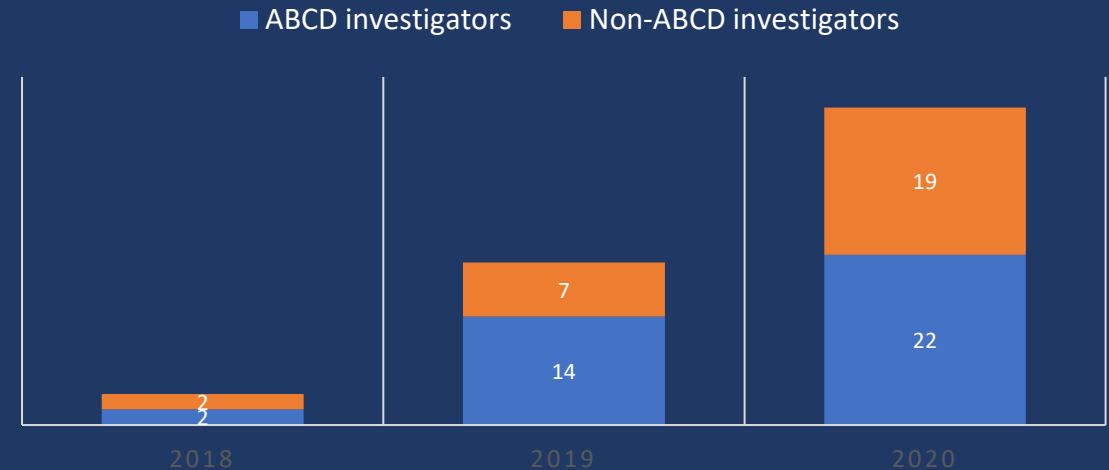
Adolescent Brain Cognitive Development (ABCD) Study



COVID-19 Adjustments

- Resumed 2-year follow-up visits (either virtually or hybrid)
 - In-person - brain imaging, select neurocog assessments and sensitive questionnaires
- No biospecimen collection
- 3-year follow-ups continuing virtually

PUBLICATIONS USING ABCD DATA

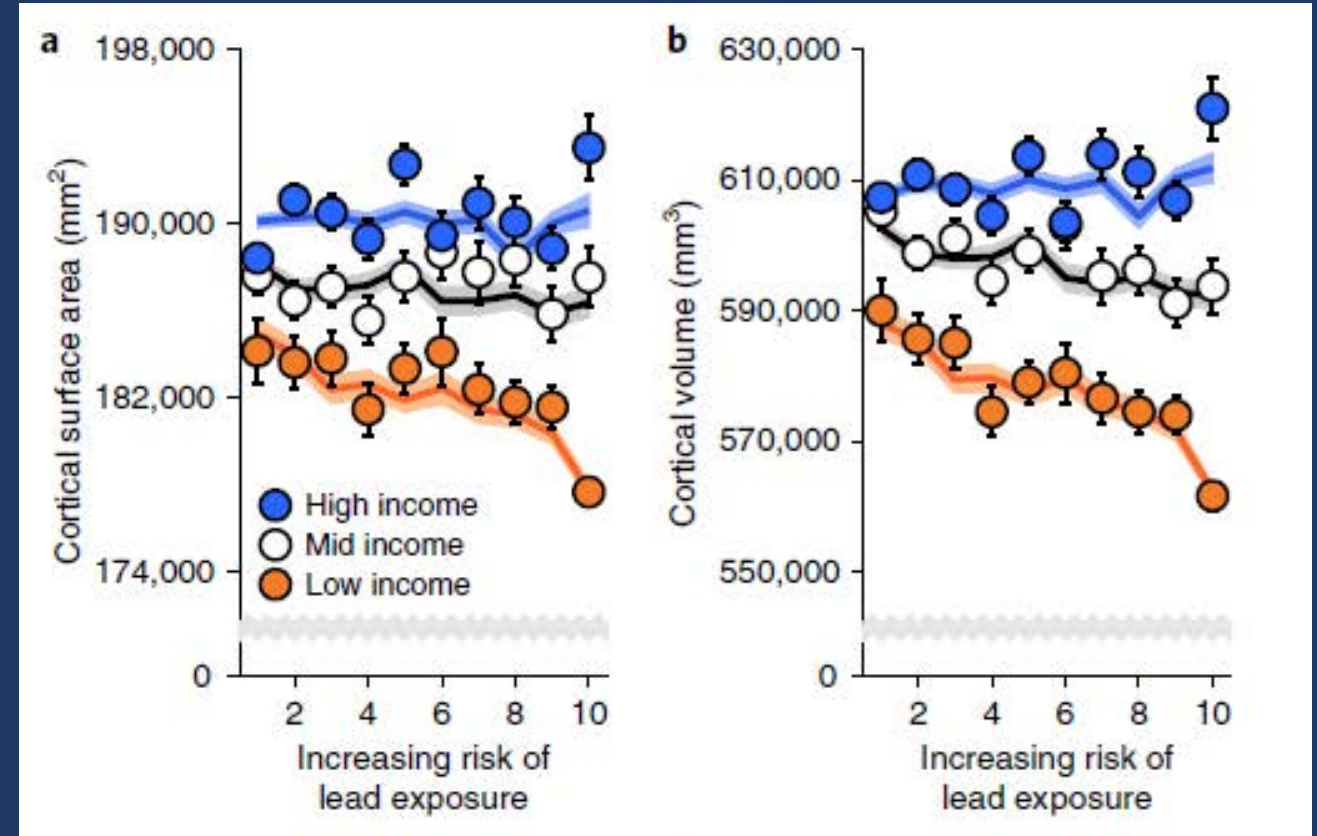
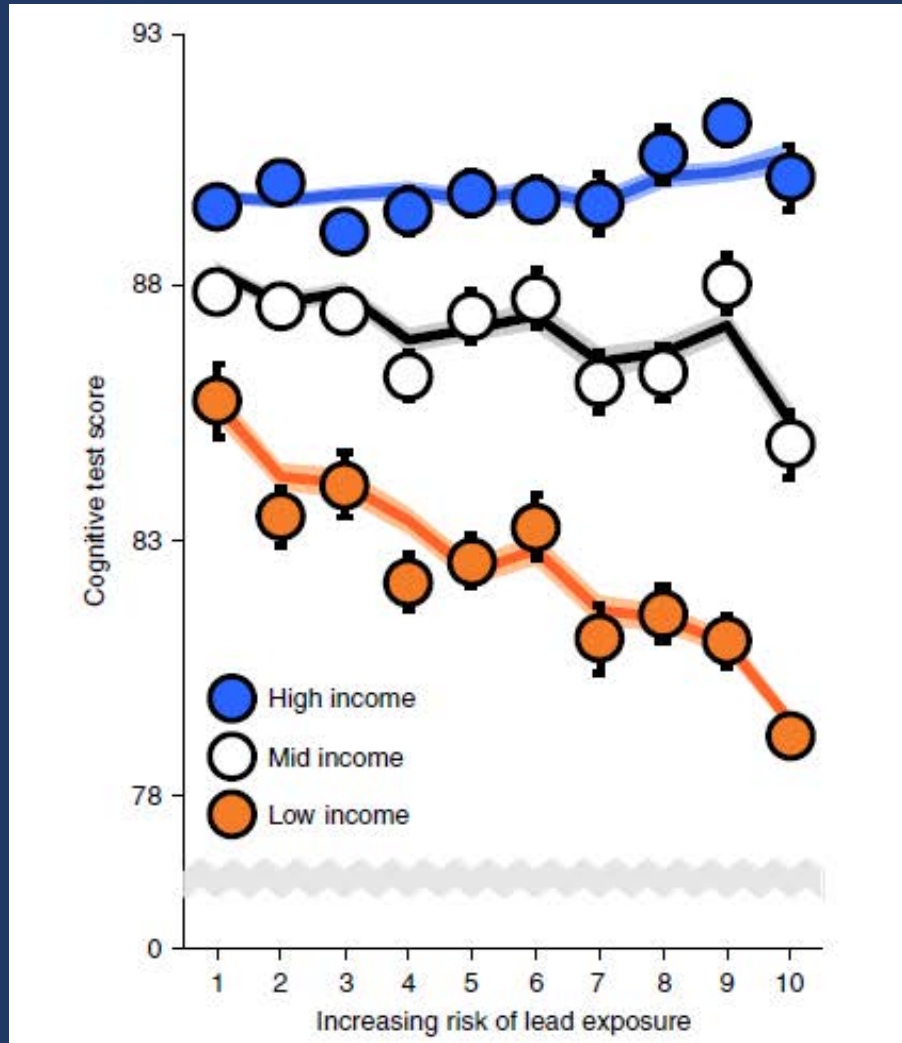


COVID-19 Data Collection

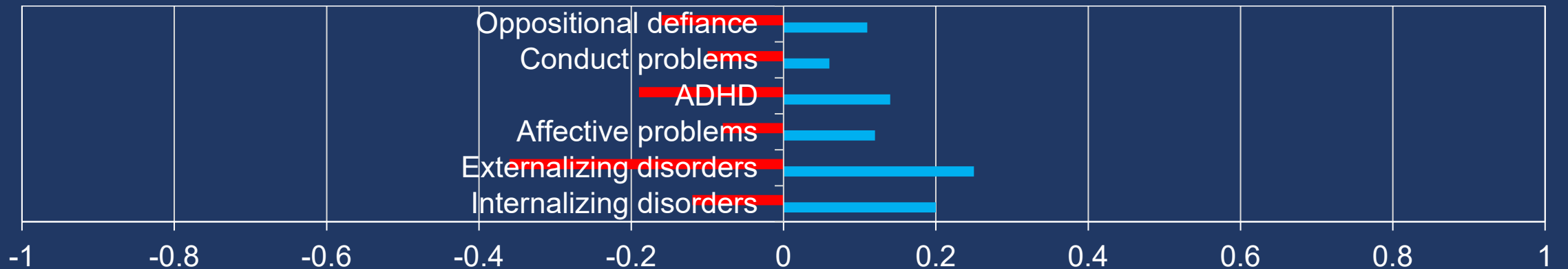
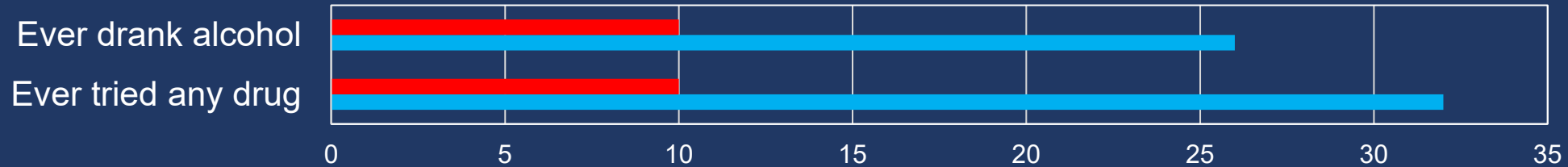
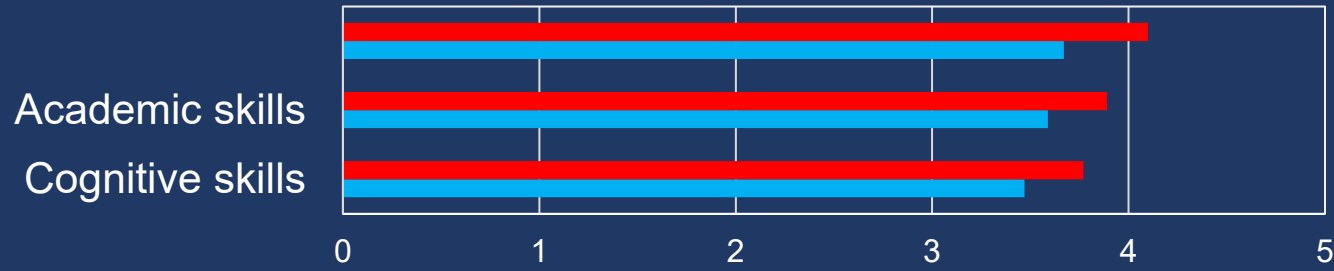
- Monthly COVID-19 questionnaires beginning May
 - Funded by NSF, NIDA, NIMH, OBSSR, Children and Screens
- Characterize community- and regional-level impacts of COVID -19 by geocoding measures of incidence, spatial distancing, changes in (un)employment, and timing of state and/or local policies on mitigation practices
 - Funded by NIH COVID-19 Social, Behavioral, and Economic Impacts Group

ABCD Data Release 3.0 Fall 2020 – 6-month and 1-year follow-up data for the full cohort; interim 18-, 24-, 30-month data

Effects of Lead Exposure on Cognition and Brain Structure Modulated by Socioeconomics (ABCD 9712; 9-10 years old)



Children of Parents who were in *Raising Healthy Children Intervention* in Grades 1-6 (n=72) Compared to Controls (n=110) through ages 1-18

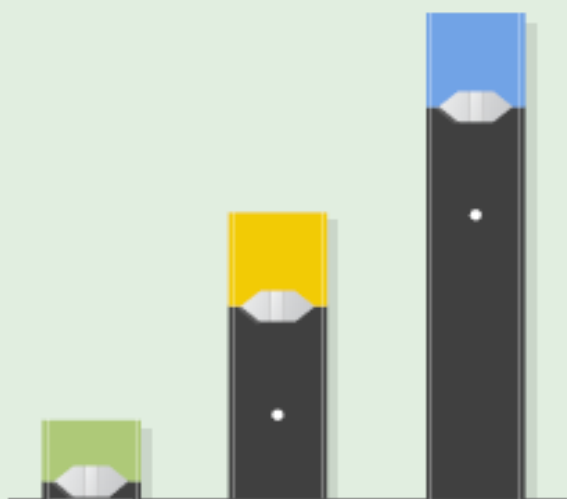


Significant Increases in Teens VAPING

NICOTINE

DAILY NICOTINE VAPING¹

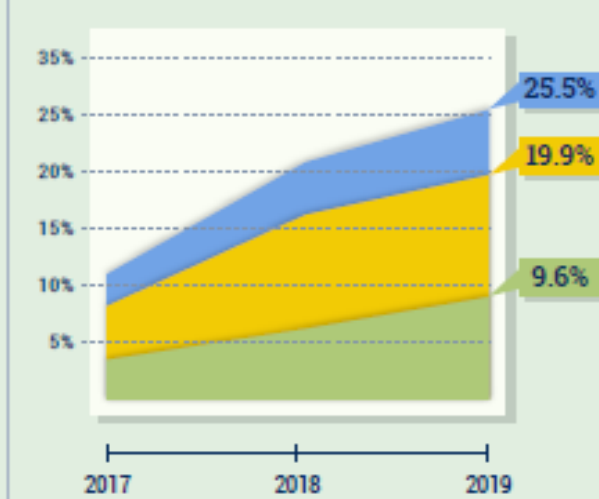
Measured for the first time in 2019



8th graders 1.9%
10th graders 6.9%
12th graders 11.7%

NICOTINE VAPING

Past month use



8th graders 10th graders 12th graders

1. Miech R, Johnston L, O'Malley PM, Bachman JG, Patrick ME. Trends in adolescent vaping, 2017–2019. *N Engl J Med* 2019; 381:1490-1491

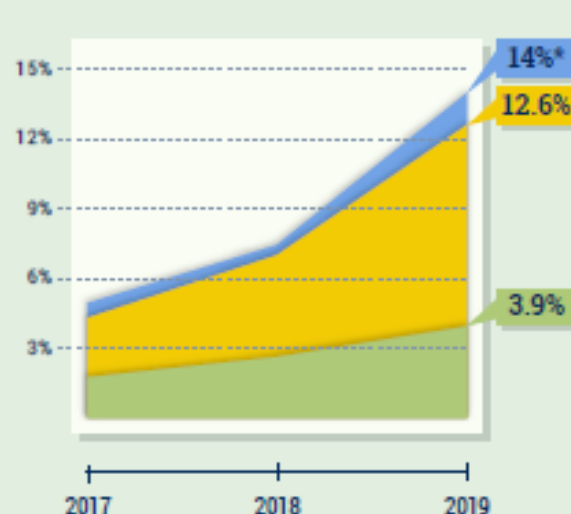
2019 Past Month Nicotine Vaping Equates to:

1 IN 4 – 12TH GRADERS • 1 IN 5 – 10TH GRADERS • 1 IN 10 – 8TH GRADERS

THC

THC VAPING

Past month use



8th graders 10th graders 12th graders

DAILY THC VAPING

Measured for the first time in 2019



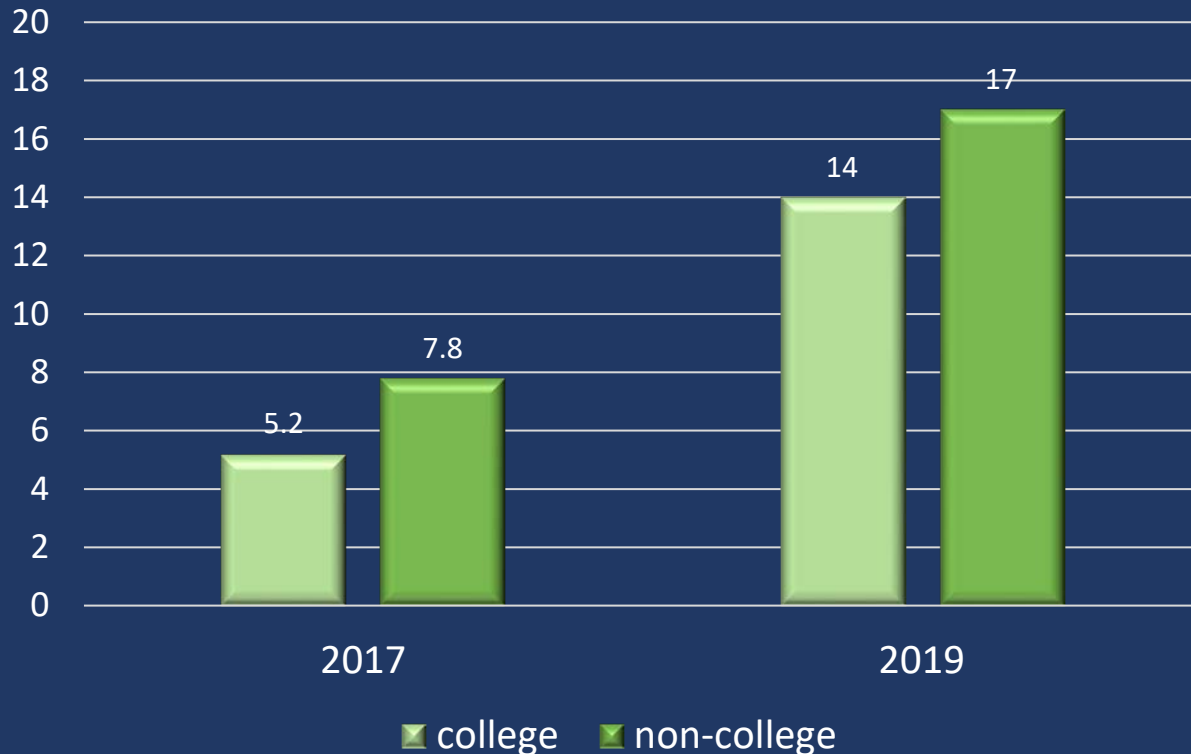
8th graders 0.8%
10th graders 3.0%
12th graders 3.5%

*2018 – 2019 INCREASE IS THE SECOND LARGEST ONE-YEAR JUMP EVER TRACKED FOR ANY SUBSTANCE IN THE 45-YEAR SURVEY HISTORY (NICOTINE VAPING WAS THE LARGEST FROM 2017 – 2018)

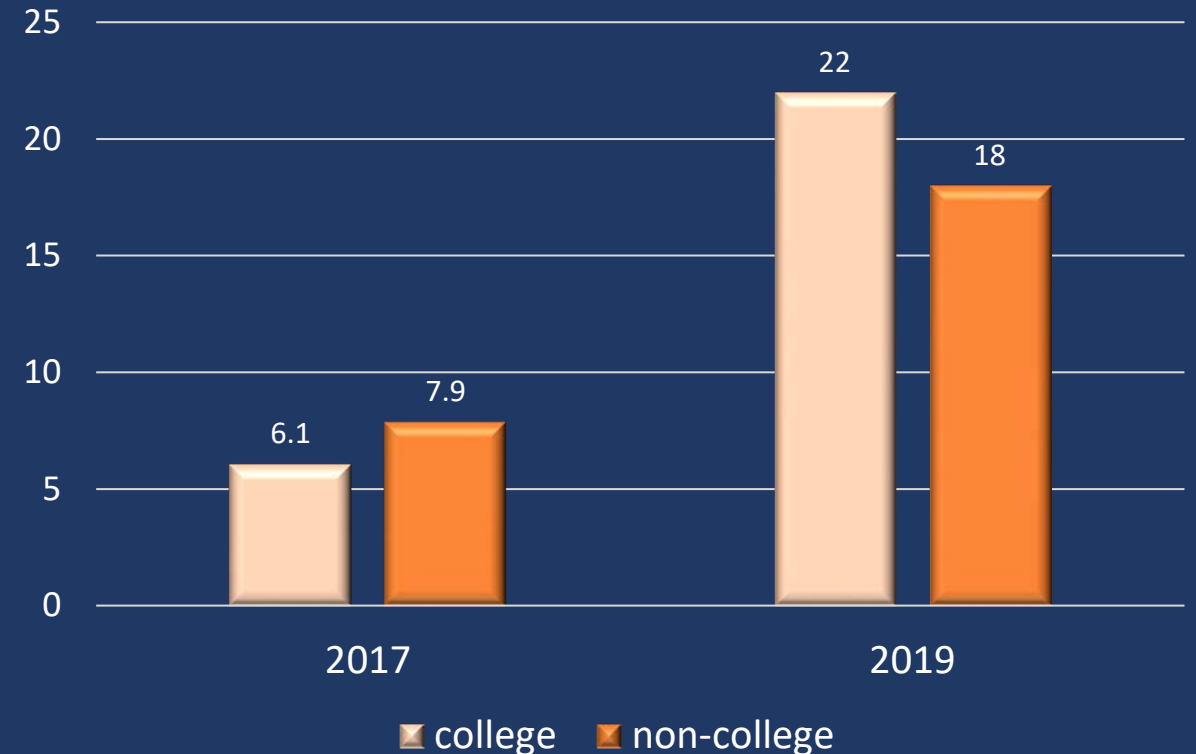
SOURCE: University of Michigan, 2019
Monitoring the Future Study

Vaping Of **Marijuana** and **Nicotine** Rose Sharply In The Past Three Years Among College-age (19-22 Years Old) Individuals

Marijuana Vaping



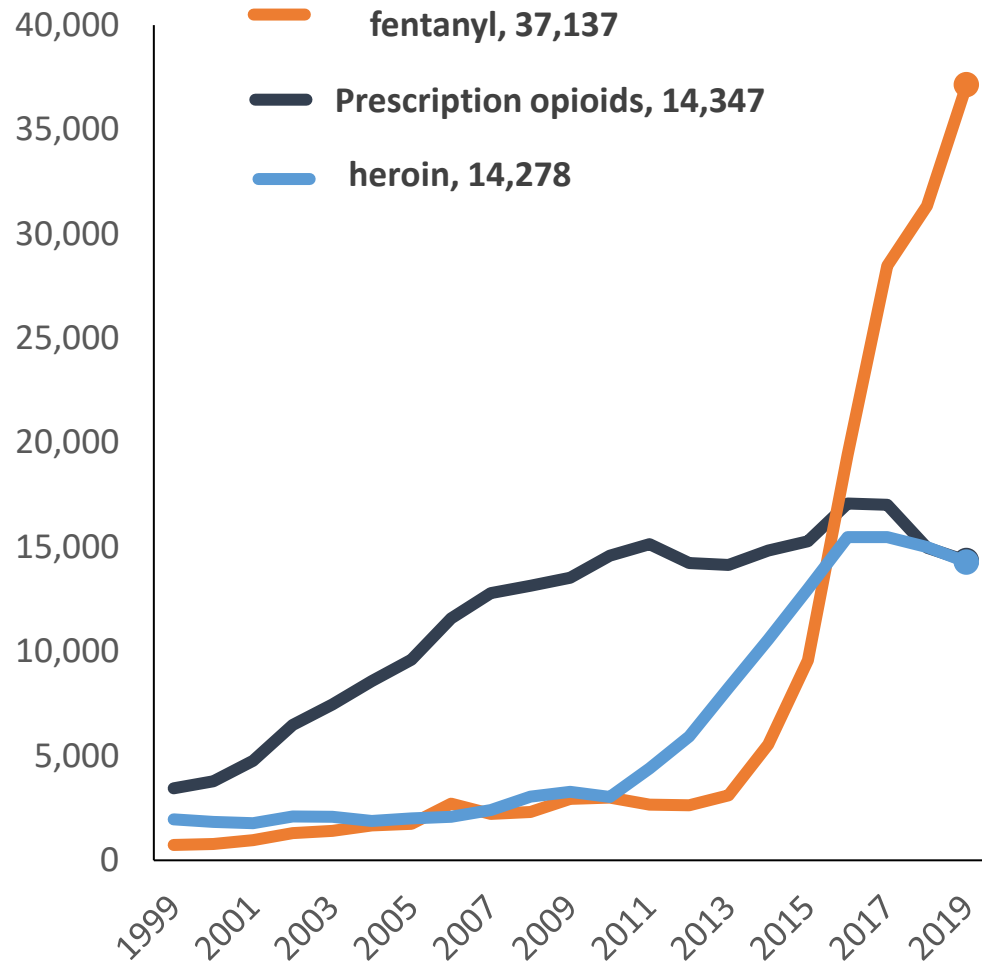
Nicotine Vaping



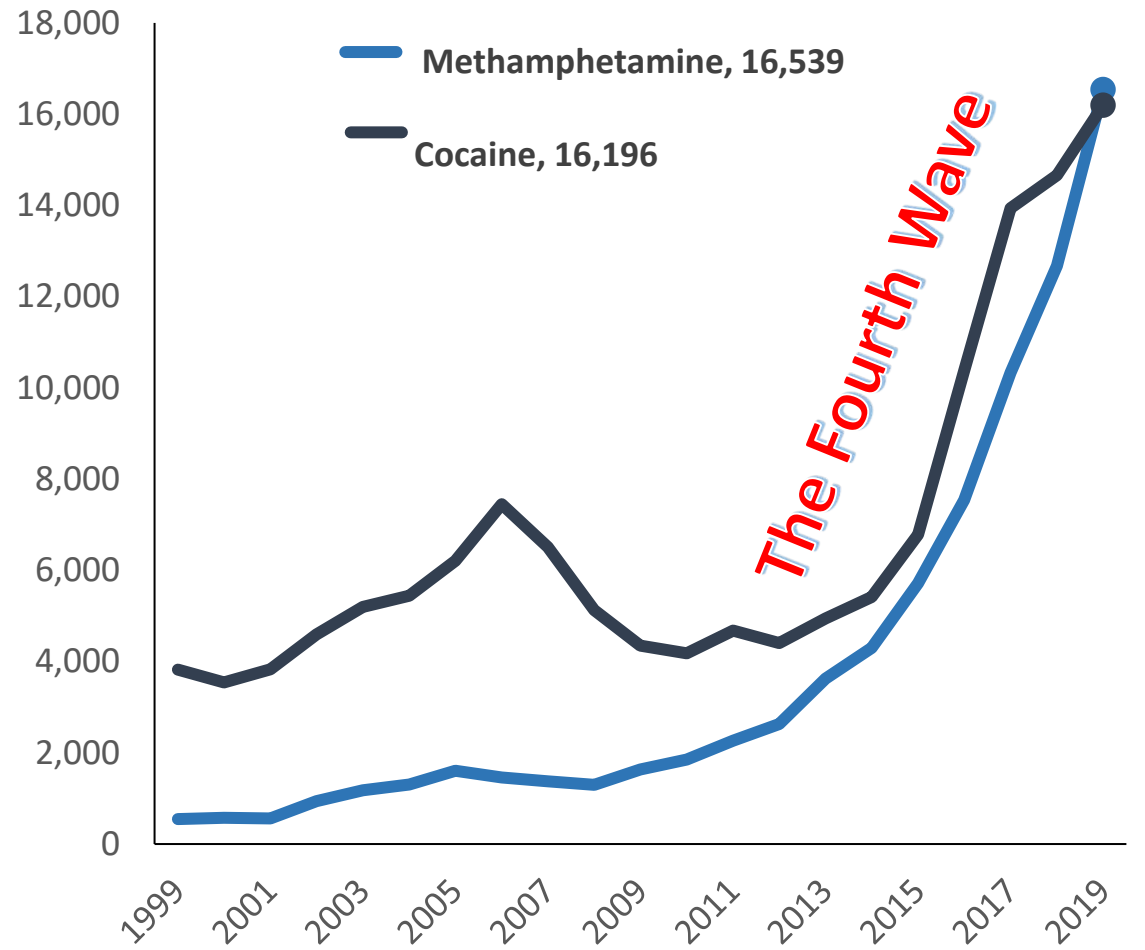
Source: Monitoring the Future 2019 Survey on College Age Adults.

Overdose Deaths in 2019 Increased by 4.6%

Number of Deaths



Number of Deaths

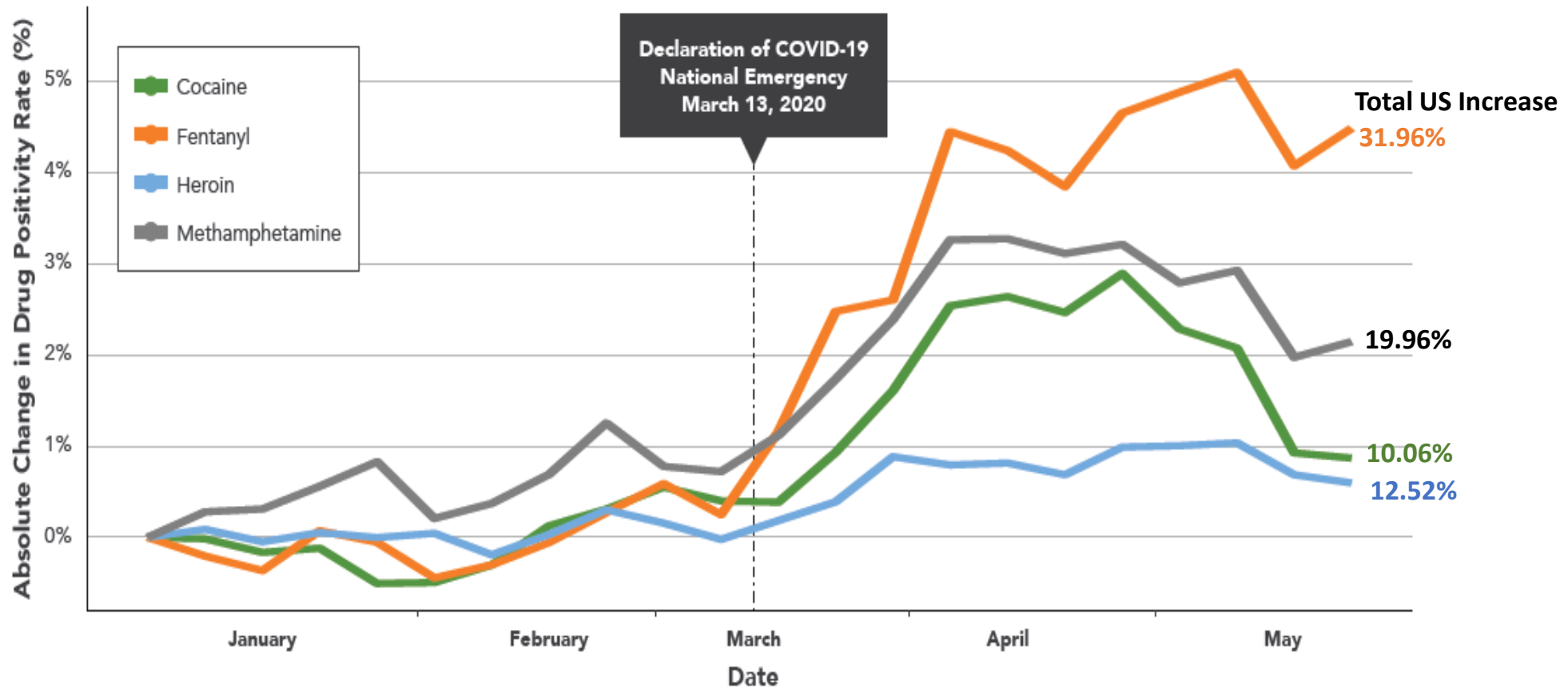


Source: CDC NVSS Vital Statistics Rapid Release Provisional Drug Overdose Death Counts

Intersection Between Opioid Crisis and COVID-19



Drug Use Increase During COVID



Millennium Health Signals Report™ COVID-19 Special Edition:
Significant Changes in Drug Use During the Pandemic Volume 2.1 Published July 2020

Total Study Population Change in Unadjusted Positivity Rate for Cocaine, Fentanyl, Heroin and Methamphetamine

Overdoses Grew Dramatically During COVID Pandemic

Overdoses increased up to 42% per month during the pandemic, as compared to the same months in 2019.

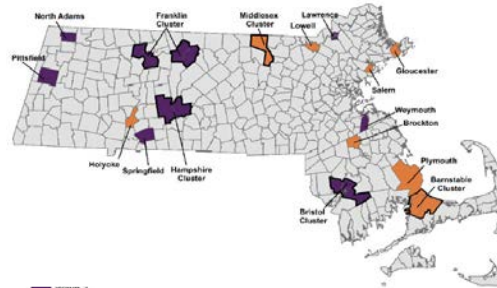
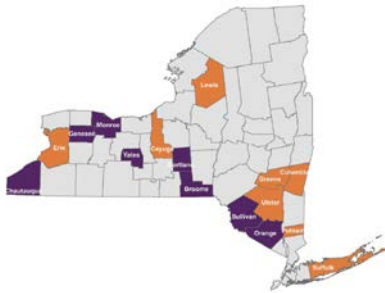
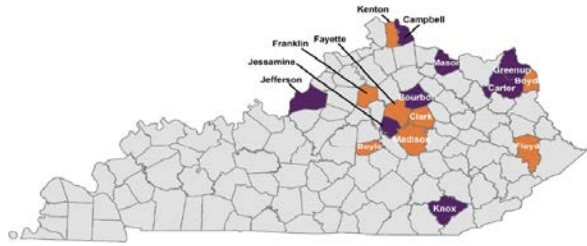


Note: Percent growth references the 1,201 agencies reporting to ODMAP by January

Source:  **ODMAP**
OVERDOSE DETECTION
MAPPING APPLICATION PROGRAM

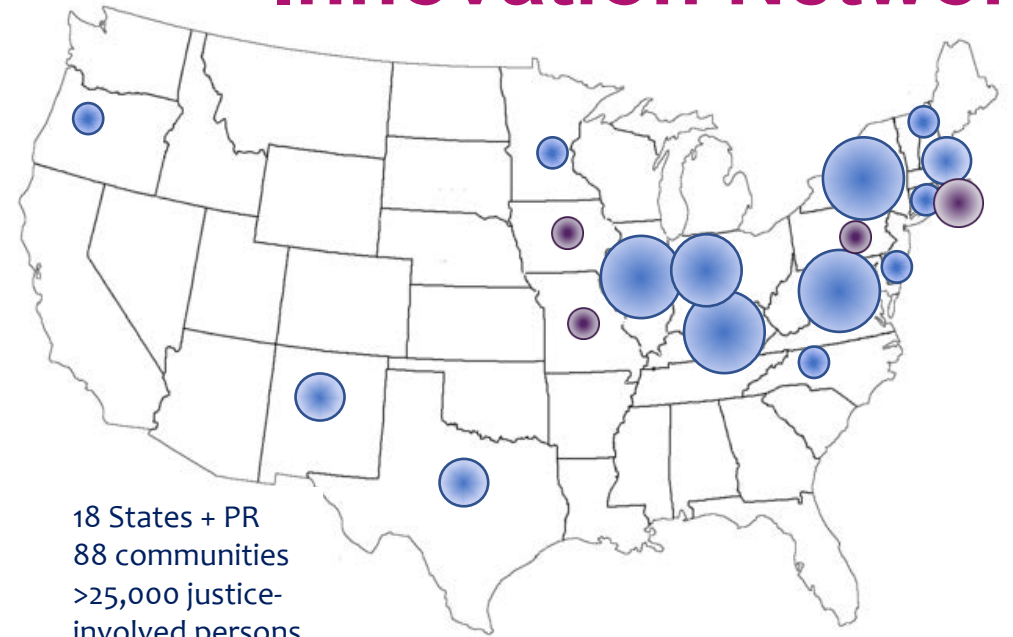
ALYSSA FOWERS/THE WASHINGTON POST

HEALing Communities Study



- Has the rate of overdoses changed?
- Impact on treatment initiation and retention
- Impact on drug access in the community
- Challenges to providers and first responders
- Challenges to those with SUD

Justice Community Opioid Innovation Network

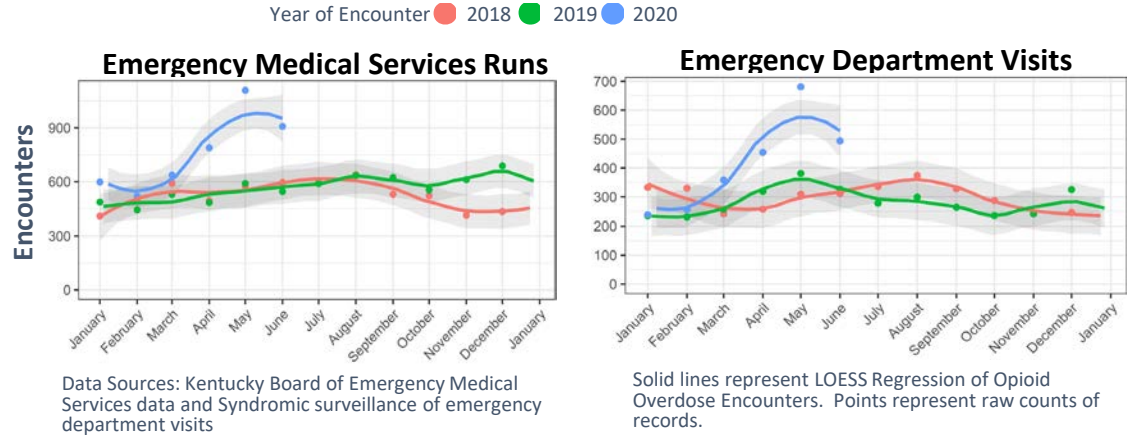


18 States + PR
88 communities
>25,000 justice-involved persons

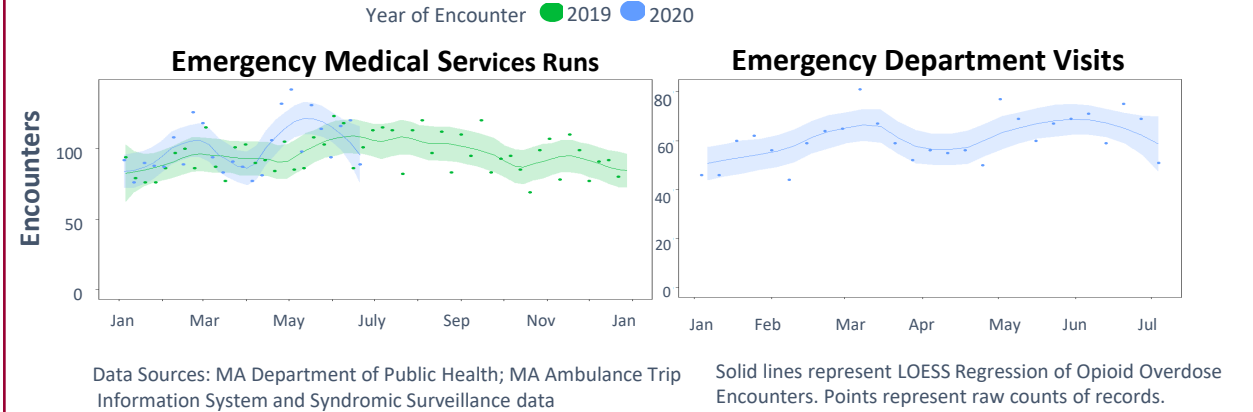
- Compiled >120 guidelines/resources for justice systems responding to COVID-19
- Advisory group to provide real-time information to NIDA COVID-19 impact in justice settings

Overdose Encounters in HEALing Communities States

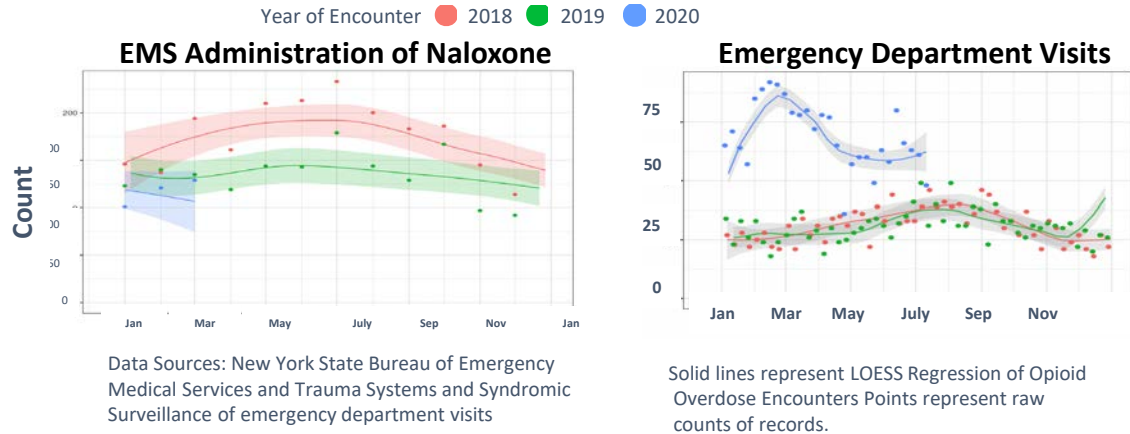
Kentucky HCS Opioid Overdose-related Encounters: 2018-2020, N=16 Communities



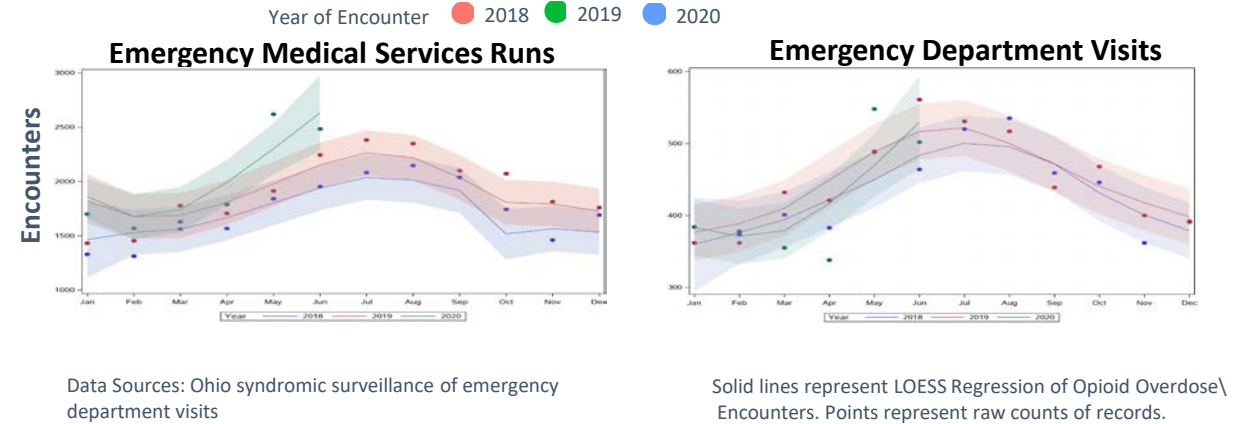
Massachusetts HCS Opioid Overdose-related Encounters: 2019-2020, N=16 Communities



New York HCS Opioid Overdose-related Encounters: 2018-2020, N=16 Communities



Ohio HCS Opioid Overdose-related Encounters: 2018-2020, N=19 Communities



COVID Policy Changes for Prescribing Medications for OUD

Methadone (II)

- ***Prior to COVID:***
 - only federally approved OTPs
 - in person for daily dosing
- ***Under COVID, SAMHSA allowed:***
 - 3/16/2020: 28 day take home
 - 3/20/2020; for those under quarantine: surrogate take home or door-step delivery
 - Still requires in person visit for first dose

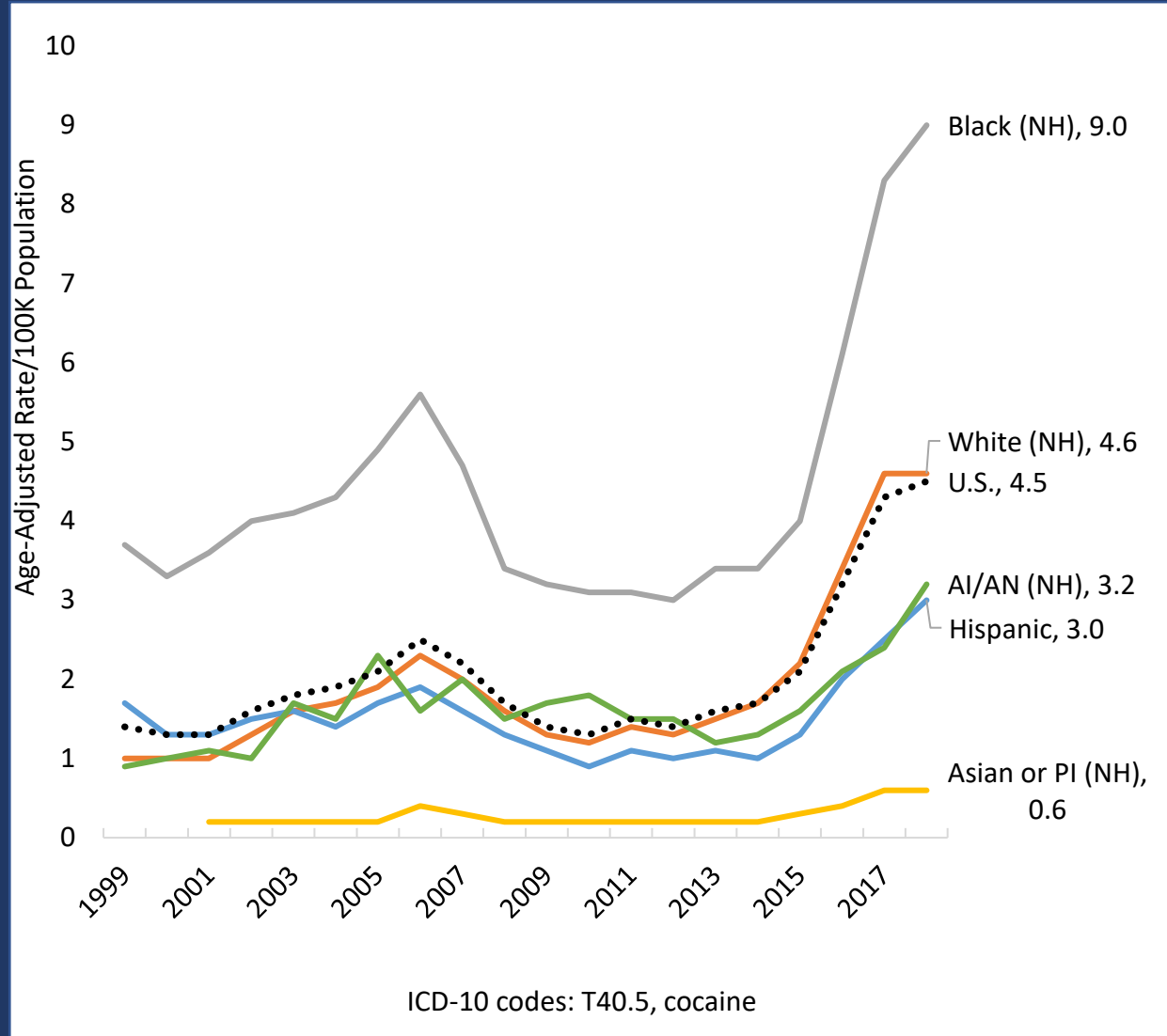
Buprenorphine (III)

- ***Prior to COVID:***
 - Prescribed through pharmacies in outpatient settings
 - DATA 2000, limited to Clinicians with Bup waivers that required additional training and federal registration
 - Limited number of patients to treat.
 - In person evaluation for initial dose
- ***Under COVID, DEA allowed:***
 - 3/17/2020: Buprenorphine initiation through telehealth (including phone) without in-person visit
 - Follow up can be via phone

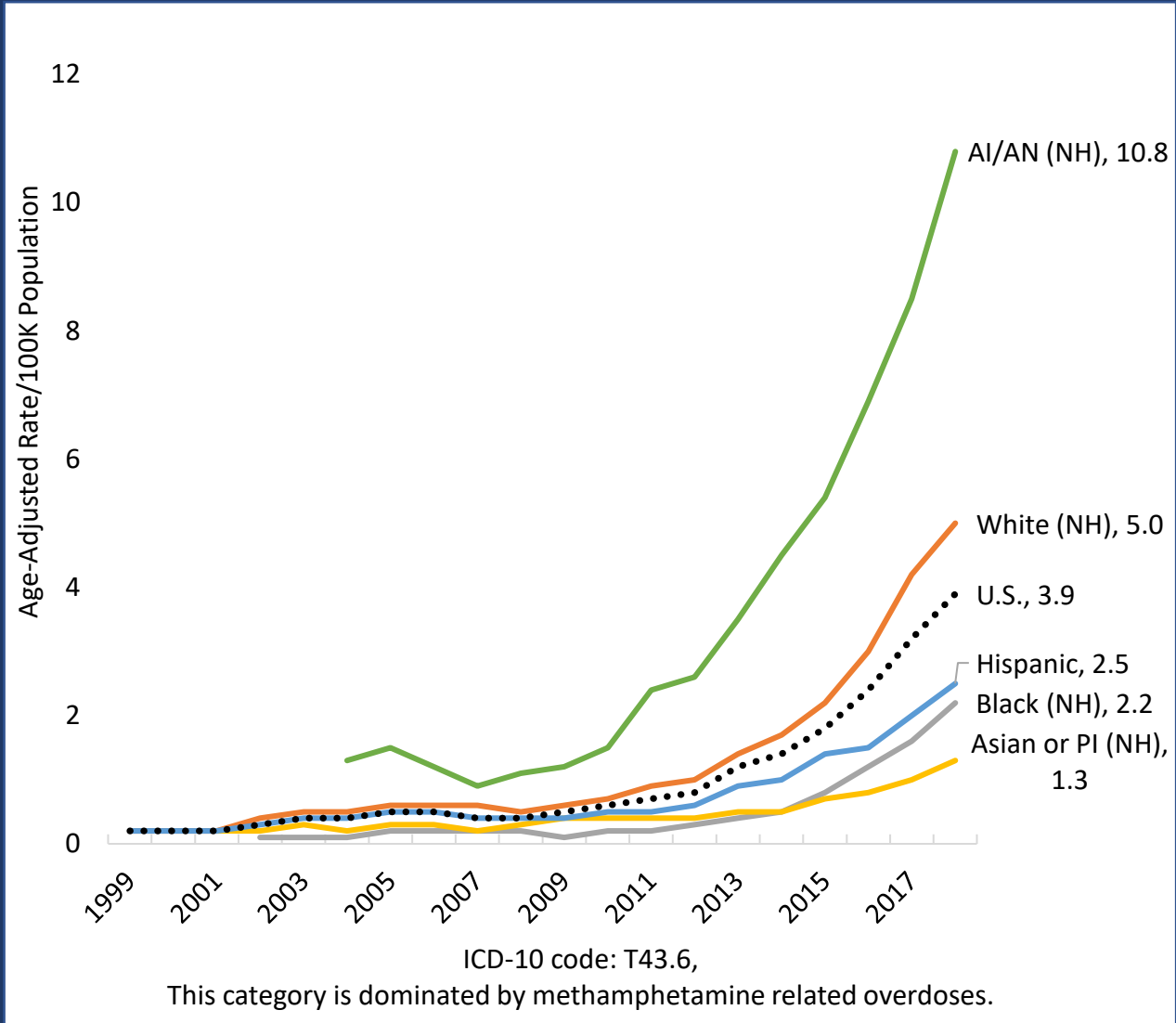
Additional Opportunities in SUD Treatment Under COVID

- Increased use of **telemedicine** and its reimbursement
 - Expanded access to **Treatment of Co-morbid conditions***
 - Expanded access to **Behavioral Treatments***
 - Establishment of **Mental Health hot lines***
 - Deployment of **virtual support meetings and coaches***
- Changes in Justice settings
 - Release of non-violent offenders with SUD from **jails/prisons***
 - Expanded use of telemedicine including for MOUD*
 - Expanded opportunities for education via web-based program*

U.S. Overdose Deaths Involving Cocaine, by Race



U.S. Overdose Deaths Involving Methamphetamine, by Race

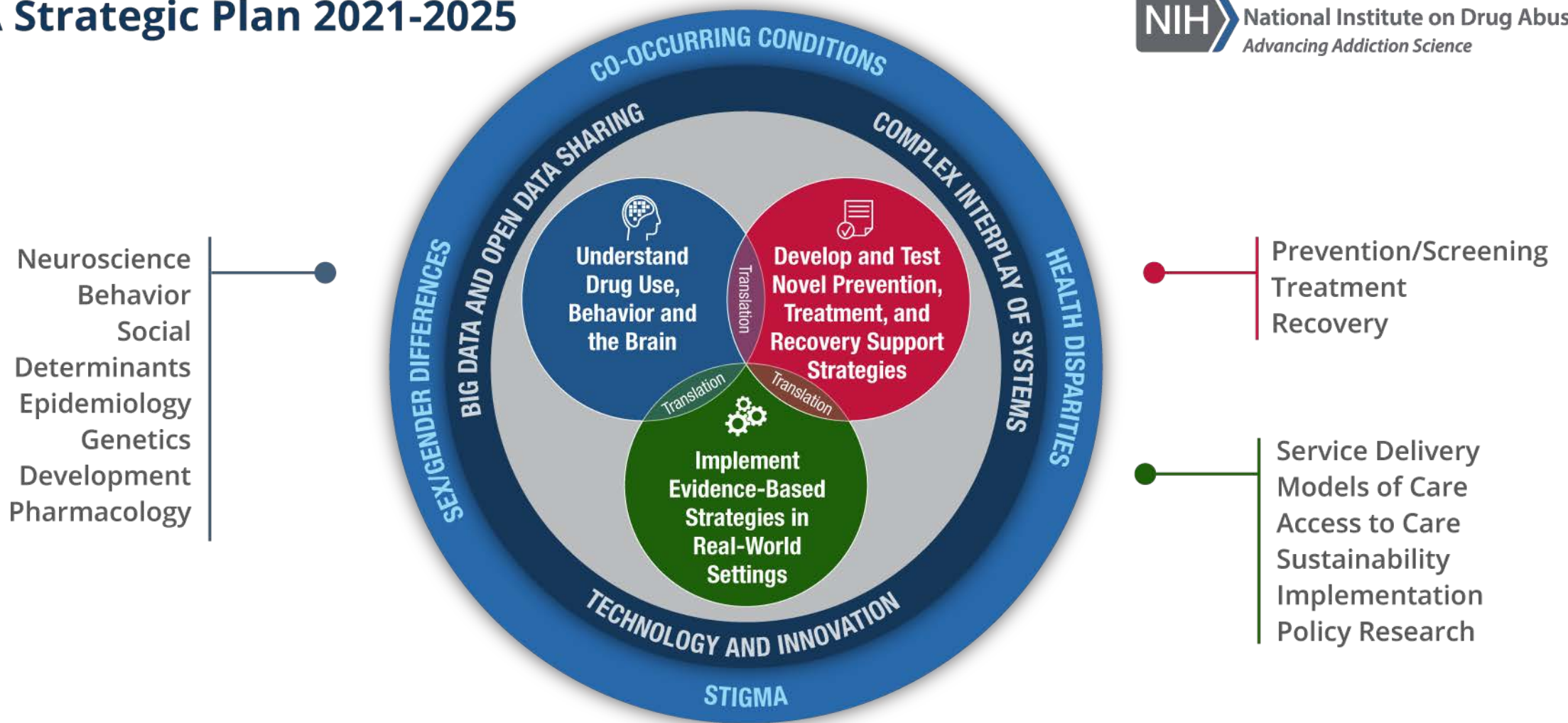


Stimulant (Cocaine and Methamphetamine) Use Disorder Medication Pipeline

Early Preclinical T2L: (>12 yrs)		Late Preclinical (10-12 yrs)	Ph I (6-10 yrs)	Ph Ib (5-9 yrs)	Ph II (4-6 yrs)		Ph III (3-5 yrs)
SBI-0069330 or SBI-0801315 * + mGluR2 PAM	GLT-1 up-regulator *	Orexin-1 antagonist *	dAdGNE * Anti-cocaine vaccine	Mirtazapine * NE/5HT antagonist	NS2359 * DAT/NET/SERT inhib.	Mavoglurant * mGluR5 non-competitive antagonist	
NOP/Kappa/Mu ligands *	Meth vaccine +	IXT-m200 + Long-duration anti-meth mAb	Cocaine hydrolase gene therapy *	Duloxetine & Methylphenidate + NET/SERT inh. & CNS stim.	Bupropion * DAT/NET inhibitor	Lorcaserin *	
PTPRD ligands * +	Cocaine hydrolase *	Methamphetamine Conjugate Vaccine	h2E2 * Anti-cocaine mAb	Lorcaserin * 5-HT2C agonist	Adderall * Mixed amph. salts	EMB-001 * Metyrapone/oxazepam GC synth inhib/benzo.	
Peptidic KOR agonists *	VMAT-2 inhibitor +			Cariprazine * D3/D2/5HT1A partial agonist	Ketamine * NMDA antag.	Guanfacine * α2A agonist	
				Pomaglumetad methionil + mGluR2/3 agonist prodrug	IXT-m200 + Anti-meth mAb		
				Clavulanic acid * GLT-1 activator			

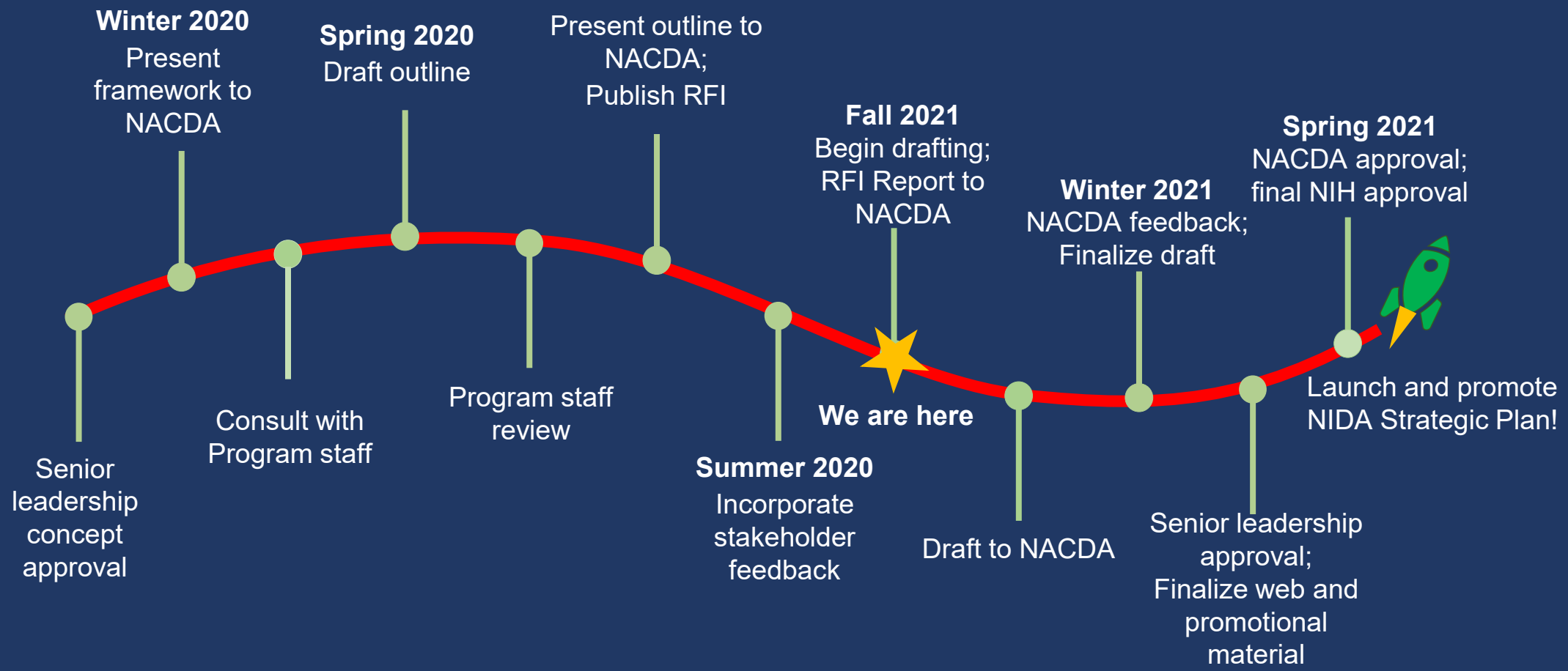
Black – NME Red – New Indication Blue – Biologic Green – Gene Therapy * cocaine + meth * + cocaine or meth

NIDA Strategic Plan 2021-2025



SCIENTIFIC STEWARDSHIP OF PUBLIC RESOURCES

- Research Training and Workforce Diversity
- Communication and Dissemination of Science
- Public-Private Partnerships and Collaboration
- Research Infrastructure Development
- Rigor and Reproducibility of Evidence



NIDA Initiative to Promote Racial Equity

Gaya Dowling, HQ/DER
Emily Einstein, HQ/OSPC

NIDA Workplace

Joellen Austin, HQ
Marisela Marsalis, IRP

Scientific Research Workforce

Albert Avila, HQ/ODHD
Michelle Jobes, IRP

Research Gaps and Opportunities

Will Aklin, HQ/DTMC
Carlos Blanco, HQ/DESPR

NIDA-wide Subgroup

Redonna Chandler, HQ/OD
Lorenzo Leggio, IRP

HQ Subgroup

Mary Kautz, DNB
Ericka Wells, DER

IRP Subgroup

Brenda Curtis, IRP (TT)
Leslie Premo, IRP (OSD)

- Christie Brannock, IRP
- Alice Delaney, IRP
- Katrina Foster, HQ/DTMC
- Chase Francis, IRP
- Julie Frost, HQ/OSPC
- Marsha Lopez, HQ/DESPR
- Jonathan Pollock, HQ/DNB
- Katherine Savell, IRP
- Ayesha Sengupta, IRP
- Adrienne Snyder, IRP
- Rita Valentino, HQ/DNB
- Kevin Walton, HQ/DTMC

- Stacy Gardner, HQ/OM
- Dharm Rathore, HQ/DER
- Carrie Wertheim, IRP
- Da-Yu Wu, HQ/DNB

- Tara Garwood, HQ/OSPC
- Chloe Jordan, HQ/DER
- Guifang Lao, DTMC
- Brian O'Laughlin, HQ/OM
- Julia Zur, HQ/DESPR

- Flavia Barbano, IRP
- Albert Burgess-Hull, IRP
- David Reiner, IRP
- Javier Rubio, IRP
- Mitchele Williams, IRP

- Jane Acri, HQ/DTMC
- Ruben Baler, HQ/OSPC
- David Bochner, HQ/OSPC
- Natty Davis, HQ/OM
- Bethany Deeds, HQ/DESPR
- Kathy Etz, HQ/DESPR
- Mehdi Farokhnia, IRP
- Yvonne Ferguson, HQ/DER
- Meyer Glantz, HQ/DESPR
- Evan Herrmann, HQ/DTMC
- Kenzie Himelein-Wachowiak, IRP
- Elizabeth Hoffman, HQ/DER
- Carol Hubner, HQ/DTMC
- Petra Jacobs, HQ/CTN
- Heather Kimmel, HQ/DESPR
- Brenton Liang, IRP
- Flair Lindsey, HQ/DNB
- Holly Moore, HQ/DNB
- Ipolia Ramadan, HQ/DER
- Carmen Rosa, HQ/CTN
- David White, HQ/DTMC

Science Behind Addiction LIVE Video series

Addressing Race, Equity and Inclusion



Dr. Freeman A. Hrabowski



Emergency Care and SUD During COVID-19



Dr. Gail D'Onofrio





Jack B. Stein, Ph.D.

National Association of State Alcohol and Drug Abuse Directors (NASADAD)
Harwood/Anderson Service Award

This award is given to a member or non-member of NASADAD in recognition of their distinguished service in the field of addiction research, training, and evaluation.

NIDA Headquarters *On the Move...*

3 White Flint North
11601 Landsdown Street Bethesda MD



- *NIDA's OA moved November 18, 2019*
- *The rest of NIDA HQ moved July 21, 2020*