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

Nora D. Volkow, M.D.
Director
National Institute on Drug Abuse
February 8, 2022
<table>
<thead>
<tr>
<th></th>
<th>FY 2021 Final ($k)</th>
<th>FY 2022 PB ($k)</th>
<th>FY 2023 PB ($k)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base</strong></td>
<td>$1,206,321</td>
<td>$1,447,060</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>HEAL</strong></td>
<td>$269,484*</td>
<td>$405,443*</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,475,805</td>
<td>$1,852,503</td>
<td></td>
</tr>
</tbody>
</table>

*NIH’s total HEAL funding is split evenly between NIDA and NINDS*
FY 21 Funding Overview

Non-HEAL Research

- Clinical Trials Network, 4%
- Office of the Director, 9%
- Therapeutics and Medical Consequences, 10%
- Epidemiology, Services & Prevention Research, 32%
- Neuroscience & Behavior, 46%

HEAL Research*

- Clinical Trials Network, 18%
- Therapeutics and Medical Consequences, 26%
- Epidemiology, Services & Prevention Research, 45%
- Neuroscience & Behavior, 6%
- Office of the Director, 5%

*Includes all NIDA HEAL projects regardless of funding source
Search for new NIH Leadership?

Francis S. Collins, MD, PhD
Retired as NIH Director

Lawrence Tabak, DDS, PhD
Named Acting Director, NIH
Findings Effective Treatments for SARS-CoV-2 Variants

NIH's COVID-19 Response

Our COVID-19 research response is helping to create safe and accurate tests, treatments, and vaccines.

Treatments and Vaccines
NIH is speeding the development of the most promising vaccines and treatments.

Testing
NIH is working to create and distribute accurate, widely available COVID-19 tests.

NIH Strategic Response
NIH's crosscutting strategies support research and innovation and ensure accessibility.
The NIH BRAIN Initiative is entering a new phase. Three large new projects — a comprehensive human brain cell atlas, a whole mammalian brain microconnectivity map, and tools for precision access to brain cell types — promise to transform neuroscience research and the treatment of human brain disorders.

Ngai, Cell 2022
Save the Date!

Join us **June 21-22, 2022** for the **8th Annual BRAIN Initiative Meeting**!

Meeting website with registration and abstract submission opening soon!

*All those interested in the U.S. BRAIN Initiative are encouraged to attend and participate.*

**Key Abstract Deadlines**
- Symposia Abstract Submissions: ~Feb 25
- Trainee Highlight Awards Abstract Submissions: ~Mar 31
- General Abstract Submissions: ~May 16

https://braininitiative.nih.gov/News-Events/event/8th-annual-brain-initiative-meeting
Monitoring the Future Survey 2021

Decreases in use across most substances, including – alcohol, marijuana, and vaped nicotine

*Illicit drug use in this survey was defined as use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of narcotics other than heroin, amphetamines, sedatives (barbiturates), or tranquilizers not under a doctor’s orders.
Past-Year Alcohol Use, Marijuana Use, and Vaping Nicotine for 2020 and 2021

2021 Monitoring the Future Survey.
Drug Use in College Age Adults in 2020 MTF

Marijuana Use

<table>
<thead>
<tr>
<th></th>
<th>past year college</th>
<th>past year non-college</th>
<th>daily use college</th>
<th>daily use non-college</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>38</td>
<td>39</td>
<td>4.6</td>
<td>11.8</td>
</tr>
<tr>
<td>2020</td>
<td>44</td>
<td>43</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

Hallucinogens

<table>
<thead>
<tr>
<th></th>
<th>college</th>
<th>non-college</th>
<th>any hallucinogen</th>
<th>LSD</th>
<th>hallucinogen other than LSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>5.3</td>
<td>3.7</td>
<td>6</td>
<td>7.9</td>
<td>3.3</td>
</tr>
<tr>
<td>2020</td>
<td>8.6</td>
<td>5.8</td>
<td>5.8</td>
<td>7.3</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Marijuana Vaping (past month)

<table>
<thead>
<tr>
<th></th>
<th>college</th>
<th>non-college</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>2020</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

Nicotine Vaping (past month)

<table>
<thead>
<tr>
<th></th>
<th>college</th>
<th>non-college</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>2020</td>
<td>22</td>
<td>18</td>
</tr>
</tbody>
</table>

Alcohol Use

<table>
<thead>
<tr>
<th></th>
<th>college</th>
<th>non-college</th>
<th>alcohol use in past 30 days</th>
<th>drunk in past 30 days</th>
<th>binge drinking in past two weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>62</td>
<td>35 32</td>
<td>49</td>
<td>22 24</td>
<td>28 24</td>
</tr>
<tr>
<td>2020</td>
<td>56</td>
<td>28 24</td>
<td>49</td>
<td>22 24</td>
<td>28 24</td>
</tr>
</tbody>
</table>
Adolescent Brain Cognitive Development Study

98.2 Percent Retained

298 publications
Assessing Impact of COVID-19 including PASC in Adolescents

- COVID antibody testing of youth and caregiver
- Survey participants about COVID/PASC symptoms
  - Infection effects vs general pandemic-related impacts
  - Risk and resilience factors that modify ‘infection-related’ outcomes
  - In-depth brain, cognitive, and mental health impacts
Adolescent Brain Cognitive Development (SM) Study
Impact of the COVID-19 Pandemic

As of February 2022
HEALthy Brain and Child Development Study: HBCD

Longitudinal study to understand normative neurodevelopment from birth to 9-10 years and assess impact of in utero exposures to drugs and harmful environments.
Impact of Pandemic on Early Childhood

Children born prior to Jan 2019 (pre-pandemic) vs after July 2020 (pandemic) after Control of age and Maternal Education

*2021 measures are significantly lower (p<0.001) than any other year in the past decade.
An average decrease of 33 points across the composite values.

Sean Deoni et al., medRxiv 2021 Aug 11;2021 HBCD
Drug Overdose Deaths* Continue to Increase Into 2021

<table>
<thead>
<tr>
<th></th>
<th>ALL DRUGS</th>
<th>HEROIN</th>
<th>NAT &amp; SEMI SYNTHETIC</th>
<th>METHADONE</th>
<th>SYNTHETIC OPIOIDS (mainly illicit fentanyl)</th>
<th>COCAINE</th>
<th>OTHER PSYCHOSTIMULANTS (mainly meth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/2020*</td>
<td>83,992</td>
<td>14,617</td>
<td>13,090</td>
<td>3,218</td>
<td>48,546</td>
<td>19,398</td>
<td>20,473</td>
</tr>
<tr>
<td>6/2021*</td>
<td>101,263</td>
<td>11,054</td>
<td>13,845</td>
<td>3,743</td>
<td>64,977</td>
<td>21,266</td>
<td>29,346</td>
</tr>
<tr>
<td>Percent Change</td>
<td>20.6%</td>
<td>-24.4%</td>
<td>5.7%</td>
<td>16.3%</td>
<td>33.8%</td>
<td>9.6%</td>
<td>43.3%</td>
</tr>
</tbody>
</table>

*NCHS Provisional drug-involved overdose death counts are PREDICTED VALUES, 12 months ending in select months. [https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm](https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm)
Drug Overdose Death Rates by Race/Ethnicity

- American Indian/Alaska Native (NH), 41.9
- Black (NH), 35.4
- White (NH), 32.8
- Hispanic, 17.6
- Asian or Pacific Islander (NH), 5.5

Rate per 100K Population

Years: 1999 to 2019
Novel Therapeutics OD and OUD

- Nalmefene
- Longer acting MOR antagonists
- Automatic naloxone autoinjector
- Breathing stimulators
- Cellphone OD detection
- Neuromodulation

- mAntibodies Fentanyl
- Sequestrant drugs

VALUE Ladder: Climbing out of Valley of Death
Implementation Science: CTN, JCOIN, HCS, Prevention

Enhancing the National Drug Abuse Treatment Clinical Trials Network to Address Opioids  Expand research conducted by NIDA CTN to address emergent needs presented by the opioid crisis.

NIH HEAL INITIATIVE  JCOIN

Justice Community Opioid Innovation Network  Study quality care for OUD in justice populations. Help create partnerships between local and state justice systems and community-based treatment providers.

NIH HEAL INITIATIVE  HEALing Communities Study

HEALing Communities Study  is investigate coordinated approaches for deploying evidence-based strategies to prevent and treat OUD in 67 communities in 4 states.
Treatment Challenges: OUD + Pain

- Lack of evidence-based integrated treatments
- Services for patients with both CP and OUD is fragmented
- Limited resources, expertise, communication

HEAL- Integrative Management of Chronic Pain and OUD for Whole Recovery (IMPOWR) Network

- 9 Studies OUD Cascade of Care
- 6/9 studies targeting under-served populations
- Partner engagement on every study
- 8 trials emphasize implementation science to maximize reach and sustainability
Closing Evidence Gaps in Clinical Prevention
A Report From the National Academies of Sciences, Engineering, and Medicine

Tracy A. Lieu, MD, MPH; Alexis Wojtowicz, BA; Kathleen Stratton, PhD

JAMA. Published online January 27, 2022. doi:10.1001/jama.2022.0849

For more than 30 years, the US Preventive Services Task Force (USPSTF), supported by the Agency for Healthcare Research and Quality (AHRQ), has published internationally influential recommendations for clinical preventive services. For each topic it reviews, the USPSTF uses a rigorous structured process to assess available and emerging evidence to develop recommendations and issues a letter grade recommendation or an I statement for each. Grades A and B suggest clinicians offer or provide the preventive service, grade C suggests they offer it for select patients, and grade D suggests they not offer the service. \(^1\) Topics receive I statements when the evidence is insufficient to recommend for or against a preventive service.
NIDA Racial Equity Initiative

**Workplace**
- Fall 2020 Climate Survey conducted; results analyzed by an external contractor to promote trust and objectivity of the results.
- Survey provides meaningful baseline data as we continue our internal racial and ethnic equity initiatives.
- Focus groups with NIDA staff will be held this spring to address actionable findings.
- A follow-on survey will be launched in summer 2022.

**Workforce**
- NIDA Diversity Supplement Program
  - Annual budget increased $750K
  - 4 additional supplement apps from predoc & postdocs funded in FY 2021
- 3 supplements to support ESIs in Addiction Science and Related Neuroscience Pilots at NIMHD-RCMI institutions
- 3 NIDA R25 applications to support underrepresented UG, predocs, and postdocs
- 13 research and career development applications funded in FY 2021
- 2 concepts presented later today

**Research Gaps and Opportunities**
- 18 supplements in response to REI NOSIs
- Supported 14 projects that characterize impact of racism on substance use outcomes, ameliorate disparities in SUD care, involve culturally tailored interventions, and/or are led by URM scientists
- 5 REI research concepts will be presented later today
  - A 6th REI concept was presented at the last Council on HIV-related health disparities in minority populations
NIDA communications efforts increase in 2021

- Doubled media outreach with 26 press releases
- 550+ media interactions, 300 interviews with NIDA experts
  Rates comparable to much larger ICs (NCI, NINDS)
- Four op-eds on criminalization, stigma, harm reduction and ODs generated additional stories, social media conversation
- Most-covered themes: rising OD deaths, COVID and substance use, impact of COVID on adolescents and children
- Increased sharing research (particularly basic/preclinical) on social media
THANK YOU!