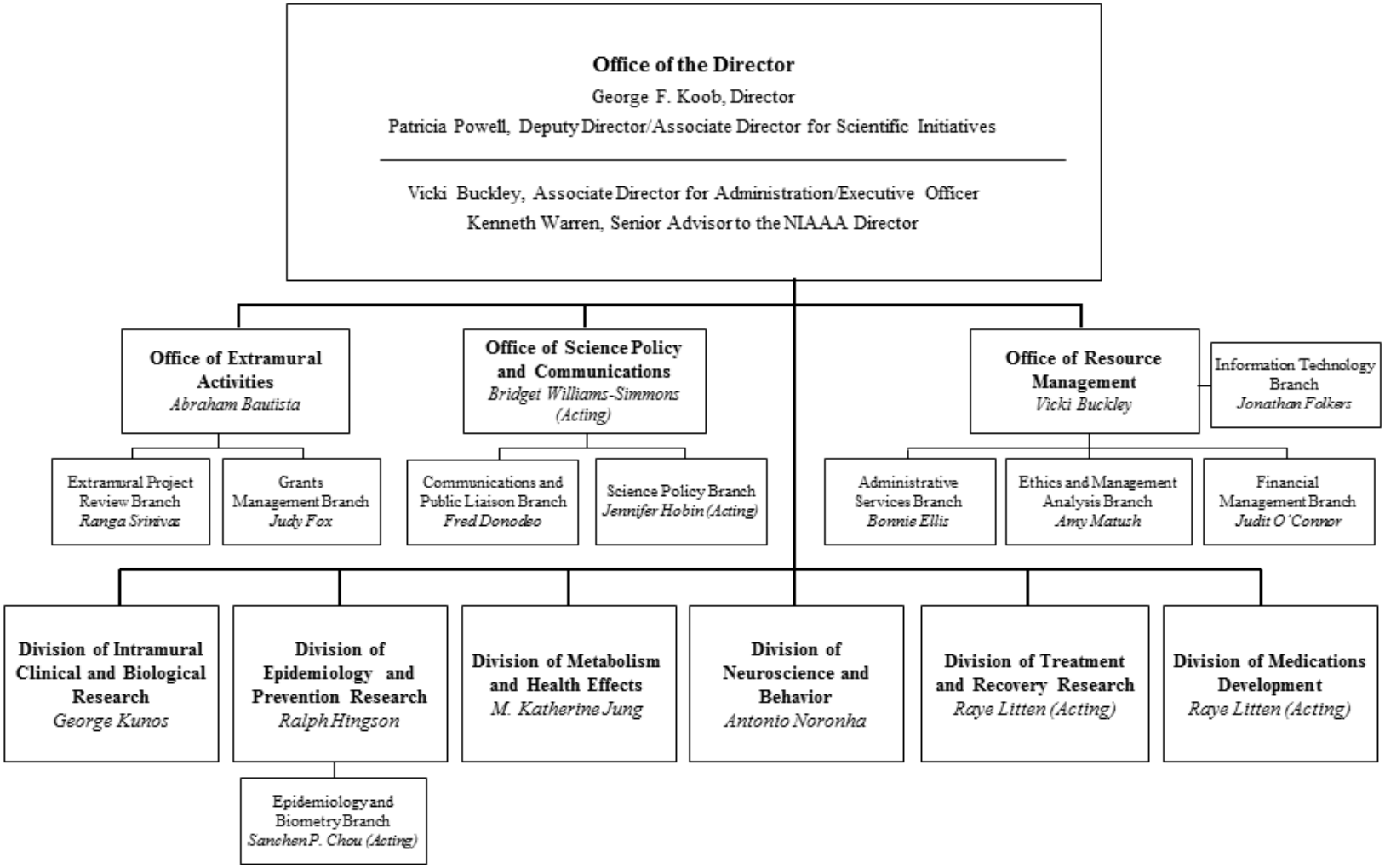
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

National Institute on Alcohol Abuse and Alcoholism



NATIONAL INSTITUTES OF HEALTH

National Institute on Alcohol Abuse and Alcoholism

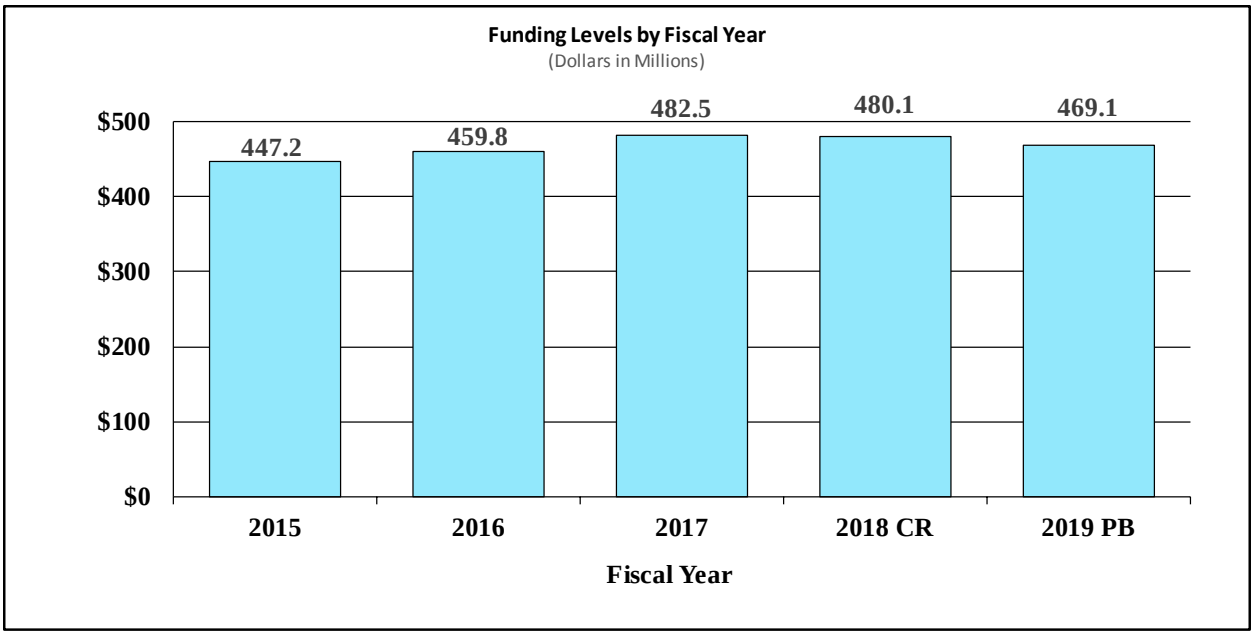
For carrying out section 301 and title IV of the PHS Act with respect to alcohol abuse and alcoholism, $469,109,000.

NATIONAL INSTITUTES OF HEALTH
National Institute on Alcohol Abuse and Alcoholism

Amounts Available for Obligation[1]
(Dollars in Thousands)

Source of Funding	FY 2017 Final	FY 2018 Annualized CR	FY 2019 President's Budget
Appropriation	$483,363	$483,363	$469,109
Mandatory Appropriation: (non-add)			
Type 1 Diabetes	*(0)*	*(0)*	*(0)*
Other Mandatory financing	*(0)*	*(0)*	*(0)*
Rescission	0	-3,283	0
Sequestration	0	0	0
Secretary Transfer	-$1,074	0	0
Subtotal, adjusted appropriation	$482,289	$480,080	$469,109
OAR HIV/AIDS Transfers	162	0	0
Subtotal, adjusted budget authority	$482,451	$480,080	$469,109
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	$482,451	$480,080	$469,109
Unobligated balance lapsing	-2	0	0
Total obligations	$482,449	$480,080	$469,109

[1] Excludes the following amounts for reimbursable activities carried out by this account:
FY 2017 - $4,761 FY 2018 - $7,000 FY 2019 - $5,250


Funding Levels by Fiscal Year
(Dollars in Millions)
$500
$400
$300
$200
$100
$0
447.2
459.8
482.5
480.1
469.1
2015
2016
2017
2018 CR
2019 PB
Fiscal Year

NATIONAL INSTITUTES OF HEALTH
National Institute on Alcohol Abuse and Alcoholism

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2018 Amount Authorized	FY 2018 Annualized CR	2019 Amount Authorized	FY 2019 President's Budget
Research and Investigation	Section 301	42§241	Indefinite	$480,080,482	Indefinite	$469,109,000
National Institute on Alcohol Abuse and Alcoholism	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				$480,080,482		$469,109,000

NATIONAL INSTITUTES OF HEALTH
National Institute on Alcohol Abuse and Alcoholism

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2009	$436,681,000	$451,688,000	$448,834,000	$450,230,000
Rescission				$0
2010	$455,149,000	$466,308,000	$457,887,000	$462,346,000
Rescission				$0
2011	$474,649,000		$473,904,000	$462,346,000
Rescission				$4,059,673
2012	$469,197,000	$469,197,000	$453,127,000	$460,389,000
Rescission				$870,135
2013	$457,104,000		$458,489,000	$459,518,865
Rescission				$919,038
Sequestration				($23,064,687)
2014	$463,848,000		$460,765,000	$446,025,000
Rescission				$0
2015	$446,017,000			$447,408,000
Rescission				$0
2016	$459,833,000	$456,012,000	$469,355,000	$467,700,000
Rescission				$0
2017[1]	$467,445,000	$480,330,000	$488,782,000	$483,363,000
Rescission				$0
2018	$361,356,000	$490,796,000	$500,491,000	$483,363,000
Rescission				$3,282,518
2019	$469,109,000			

[1] Budget Estimate to Congress includes mandatory financing.

Justification of Budget Request

National Institute on Alcohol Abuse and Alcoholism

Authorizing Legislation: Section 301 and title IV of the Public Health Service Act, as amended.

Budget Authority (BA):

	FY 2017 Final	FY 2018 Annualized CR	FY 2019 President's Budget	FY 2019+ / - FY 2018
BA	$482,451,000	$480,080,482	$469,109,000	-$10,971,482
FTE	236	238	238	0

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Director's Overview

Alcohol misuse has profound effects on the health and well-being of individuals, families, and communities. Approximately 15 million people in the United States have alcohol use disorder (AUD), and alcohol misuse cost the country $249 billion in 2010.[1,2] Guided by its five year strategic plan,[3] the National Institute on Alcohol Abuse and Alcoholism (NIAAA) supports research and related initiatives to generate and disseminate fundamental knowledge about the effects of alcohol on health and well-being, and apply that knowledge to improve the diagnosis, prevention, and treatment of alcohol-related problems, including AUD, across the lifespan.

Tackling Complex Challenges by Leveraging Partnerships

Strategic partnerships are critical to advancing NIAAA's mission. The Institute collaborates with other Federal agencies, scientific societies, professional organizations, educators, and patient, family, and community groups. Through the Collaborative Research on Addiction at NIH (CRAN) initiative, NIAAA partners with the National Institute on Drug Abuse (NIDA) and the National Cancer Institute (NCI) to integrate resources and expertise across NIH to develop a comprehensive understanding of substance use, misuse, and addiction. The Adolescent Brain Cognitive Development study, a major CRAN initiative, is the largest long-term study of brain development and child health in the United States. NIAAA partnered with the United States Surgeon General and other Federal agencies on *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. This report reviewed the state of the science of substance misuse and articulated an actionable set of recommendations for preventing and treating AUD and other substance use disorders. NIAAA and the Substance Abuse and Mental Health Services Administration worked together to raise awareness among health care providers

[1] Center for Behavioral Health Statistics and Quality (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52). Retrieved from http://www.samhsa.gov/data/

[2] Sacks JJ et al. 2010 National and State Costs of Excessive Alcohol Consumption. *Amer. Journal of Prev. Med.* 2015;49(5):e73–e79.

[3] NIAAA Strategic Plan, 2017-2021. https://www.niaaa.nih.gov/strategic-plan

about alcohol diagnosis, prevention, and treatment (see program portrait 1). Together, they developed *Medication for the Treatment of Alcohol Use Disorder: A Brief Guide* to help clinicians incorporate pharmacotherapy into their alcohol treatment practices. Partnerships with industry are important to advancing AUD medications development. NIAAA's Clinical Investigations Group streamlines this process by partnering with pharmaceutical companies to conduct "fast success/fast fail" phase II clinical trials of promising compounds.

Supporting Basic Research

Basic research is integral to NIAAA's mission. Breakthroughs in neuroscience have revolutionized our understanding of AUD, demonstrating that it is a chronic brain disease with the potential for recovery and recurrence. As individuals progress from alcohol use to misuse to AUD, changes occur in brain structure and function that drive the transition from responsible, moderate alcohol use to chronic, compulsive drinking. NIAAA supports research to develop a deeper understanding of these changes and translate discoveries into effective interventions. Through the NIH Blueprint for Neuroscience Research,[4] NIAAA issued a funding opportunity announcement[5] to illuminate how interactions between the central nervous system (CNS) and the immune system affect the transition from normal to disordered CNS function. NIAAA also supports basic research to address the adverse consequences of alcohol misuse, including alcoholic liver disease (ALD) and fetal alcohol spectrum disorders (FASD). A recent study demonstrated associations between: fungi in the gastrointestinal (GI) tract and ALD in animal models; alterations in the types of intestinal fungi and AUD in humans; and, among alcoholic cirrhosis patients, higher fungal levels outside the GI tract and higher likelihood of mortality compared to those with lower fungal levels. Another study in mice showed that inhibiting enzymes involved in DNA repair, cell death, and inflammation reduces alcohol-induced liver injury. Research indicates that there is no safe level of alcohol use during pregnancy. An NIH-funded study in mice illuminates the risks of prenatal alcohol exposure, finding that even low doses of alcohol may lead to severe and highly variable deficits in the fetal brain. The unpredictable nature of the deficits may be due to inconsistencies in how brain cells activate a protective response to alcohol and other harmful compounds, which may help explain behavioral and learning deficits observed in people with FASD.

Investing in Translational and Clinical Research to Improve Health

Advances in alcohol research have led to effective treatments for AUD, including behavioral therapies and three Food and Drug Administration-approved medications. These interventions work better for some people than for others, underscoring the need for a broader array of options. NIAAA supports research on new and repurposed AUD medications and on behavioral therapies. Understanding the mechanisms by which effective behavioral interventions exert their effects (e.g., by increasing coping skills or enhancing motivation to change) may help providers optimize their care by emphasizing the delivery of those aspects of treatment likely to have the greatest positive impact on a patient based on his or her needs. Unfortunately, even with effective interventions, fewer than 10 percent of people with AUD in the United States receive treatment for it. Many people are not aware of the full range of treatment options, nor do they have the information they need to identify qualified treatment providers. To address this issue, NIAAA launched the Alcohol Treatment Navigator[SM]. Grounded in decades of research, this

[4] NIH Blueprint for Neuroscience Research. https://neuroscienceblueprint.nih.gov/
[5] https://grants.nih.gov/grants/guide/rfa-files/RFA-AA-18-007.html

online resource offers a comprehensive strategy to help people search for professionally-led, evidence-based alcohol treatment that meets their needs (see program portrait 2). NIAAA supported an initiative to promote basic, translational, and clinical research focusing on the pathobiology, diagnosis, treatment, and prevention of alcoholic hepatitis (AH), and these programs are now being integrated into the AH Clinical and Translational Network. The network is designed to streamline processes for designing, initiating, and conducting clinical trials, reduce administrative redundancy, facilitate interactions among researchers, and make optimal use of scientific innovations.

Fostering a Diverse and Talented Workforce

Cultivating a talented and diverse research workforce is essential to advancing the frontiers of scientific knowledge and translating research findings into practice. NIAAA promotes alcohol research training through individual pre- and postdoctoral fellowships, institutional training grants, and career development awards across NIAAA's research portfolio. Consistent with NIH-wide efforts, NIAAA is increasing support for promising early stage investigators and mid-stage investigators at risk of losing NIH funding. Diverse research teams broaden the scope of scientific inquiry and bring creative solutions to bear on complex scientific problems. As such, programs to identify, recruit, and train scientists from diverse populations are vital components of NIAAA's training portfolio.

Program Descriptions and Accomplishments

Embryo and Fetus

Alcohol consumption during pregnancy can have devastating effects on the developing embryo and fetus, including at the earliest stages and often before a woman knows that she is pregnant. Prenatal alcohol exposure is a leading preventable cause of birth defects and developmental abnormalities in the United States. It can lead to brain and other organ damage, growth retardation, facial abnormalities, and a range of neurobiological deficits that can result in lifelong physical, cognitive, behavioral, and social challenges. The broad range of developmental effects that may result from prenatal alcohol exposure are known collectively as fetal alcohol spectrum disorders (FASD), which varies in severity and includes fetal alcohol syndrome (FAS). NIAAA's research portfolio to prevent FASD and improve outcomes for children affected by it encompasses: developing interventions to prevent prenatal alcohol exposure, diagnosing and treating women with alcohol use disorder (AUD), improving diagnosis of children with FASD, establishing more precise prevalence estimates of FASD in the United States, understanding the neurobiological deficits that underlie FASD-related cognitive and behavioral impairments, and developing pharmacological and behavioral interventions to mitigate FASD-related health effects. A key challenge facing clinicians is the ability to recognize women who are drinking during pregnancy and newborns who have been exposed prenatally to alcohol. For example, both 3-dimensional fetal ultrasound and measures of circulating microRNAs in maternal blood, novel biomarkers elevated by alcohol use during pregnancy, have the potential to improve early identification of children affected by prenatal alcohol exposure. Likewise, functional near-infrared spectroscopy, a portable, noninvasive, and relatively inexpensive brain imaging technique that has proven effective at detecting changes in brain activity among children, may be used to differentiate children exposed to alcohol prenatally from other children. Yet another study found that measuring cardiac orienting response—a specific pattern of heart rate changes

in the presence of novel stimuli—in 6-month old infants could predict developmental delays at 12 months of age. Although FASD lasts a lifetime, earlier diagnosis may increase the effectiveness of interventions to improve a child's developmental outcomes.

Youth/Adolescence (Ages 0-17)

Many people first begin using alcohol during adolescence, and the prevalence of drinking and binge drinking (consuming five or more drinks on one occasion for men or four or more drinks on one occasion for women) increases dramatically during this time. Not only are adolescents at increased risk of injuries and accidents while under the influence, but those who begin drinking before age 15 are four times more likely to report AUD symptoms at some point in their lives compared to those who wait until they are 21 or older. Moreover, preclinical and clinical research indicate that alcohol exposure during adolescence can affect brain development and compromise cognitive function in both the short and long term. To elucidate further how adolescent drinking affects the developing brain, NIAAA supports the National Consortium on Alcohol and Neurodevelopment in Adolescence (NCANDA) and the Adolescent Brain Cognitive Development (ABCD) study, two longitudinal studies examining brain structure and function in youth before and after they begin using alcohol or other drugs. Findings from NCANDA show that a combination of demographic, neurocognitive, and brain imaging data obtained when participants were 12-14 years old were predictive of alcohol misuse at age 18. Seven of the 10 most predictive variables were derived from brain-based measures. The ABCD study is recruiting over 10,000 9-10 year olds and will follow them over a 10-year period. More than 5,000 children have already been enrolled in the study, and researchers have begun to collect structural and functional magnetic resonance imaging data. In coordination with the National Institute of Mental Health Data Archive, ABCD data will be shared with the public on an ongoing basis. Complementing NCANDA and ABCD, NIAAA's Neurobiology of Adolescent Drinking in Adulthood Initiative (NADIA) is enabling investigators to examine, in animal models, the mechanisms by which adolescent drinking affects brain structure and function and how the changes observed during this critical period persist into adulthood. NADIA investigators found that adult animals exposed to alcohol during adolescence show decreased baseline connectivity among brain regions involved in impulsivity, risk-taking, and substance use, as well as alterations in brain circuit sensitivity in response to alcohol.

Considering the adverse consequences associated with adolescent drinking, it is critical to prevent, or at least delay, the onset of drinking among youth and reduce drinking among those who have started. Alcohol screening and brief intervention in primary care has been recognized as a leading preventive approach for reducing harmful alcohol use in adults, and a growing body of evidence indicates that it is effective among adolescents. To facilitate screening 9-18 year olds in primary care settings, NIAAA developed *Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide*. The *Guide* introduces a two-question screening tool, with one question about personal drinking frequency and the other about friends' drinking. Since the publication of the *Guide*, an NIAAA-funded study demonstrated that adolescents who have substance-using peers are more likely to escalate alcohol or other drug taking. The results of this study provided support for asking youth about peer substance use as a screen for substance use risk, as recommended in NIAAA's youth screening guide. NIAAA also supports studies evaluating the effectiveness of youth screening in other contexts, including emergency departments, juvenile justice settings, and schools. A recently published prevention trial found

that school-based universal screening and brief intervention grounded in the NIAAA *Guide*, as well as a community-based intervention to reduce alcohol access among underage individuals, reduced overall alcohol use, binge drinking, and associated consequences among American Indian youth living in the Cherokee Nation.

Young Adult (Ages 18-29)

Young adults are also vulnerable to the adverse effects of alcohol misuse. Each year, more than 5,000 18- to 24-year-olds die from unintentional injuries related to alcohol, and an NIAAA analysis of survey data found that alcohol-related hospitalizations and overdose deaths among this group have increased since 1998. Although binge drinking is declining among adolescents, binge and extreme binge (drinking two or more times the binge drinking threshold) drinking have increased among adults. These drinking patterns are particularly troubling, as they increase risks for blackouts, alcohol poisoning, sexual assault and sexually transmitted diseases, poor academic performance, and developing AUD. To address alcohol misuse among young adults in particular, NIAAA focuses on risk assessment and screening, universal and selective prevention, and early intervention and treatment for those who need it. To assist college and university officials in addressing alcohol misuse on their campuses, NIAAA developed the College Alcohol Intervention Matrix (*CollegeAIM*). This user-friendly guide and website rates nearly 60 evidence-based alcohol interventions in terms of effectiveness, costs, and other factors. NIAAA embarked on a multifaceted effort to promote and disseminate *CollegeAIM*, including presentations at national higher education conferences and regional workshops. Since its launch in 2015, the *CollegeAIM* website has received over 47,000 visitors, the digital *CollegeAIM* booklet was downloaded more than 8,000 times, and NIAAA distributed more than 14,000 print copies of the booklet. NIAAA is in the process of updating *CollegeAIM* to ensure that it reflects the latest research on evidence-based alcohol interventions for college-age individuals.

Midlife/Senior Adult

Most adults drink alcohol, and the prevalence of drinking, binge drinking, and AUD among those 50 years of age and older has increased (see program portrait 3). Midlife is the time when individuals with AUD are most likely to seek alcohol treatment, and NIAAA is committed to advancing through the medications development pipeline compounds with promise for it. To facilitate the development of novel medications for treating AUD, NIAAA has taken several steps. The Institute established a Human Laboratory Program to bridge the gap between animal studies and early human testing of compounds and uses the Small Business Innovation Research/Small Business Technology Transfer programs to help businesses conduct early stage studies needed for an Investigational New Drug application to the FDA. NIAAA's Clinical Investigations Group (NCIG) continues to coordinate multi-site Phase II clinical trials of novel and re-purposed compounds for treating AUD. NIAAA also prioritizes research to develop new and improved behavioral interventions for AUD and co-occurring conditions, as well as studies to identify factors that facilitate or inhibit long-term recovery. One exciting area in which NIAAA is encouraging research is the use of neuroimaging and other biomarkers to assess physiological processes that accompany treatment and recovery and to use this information to optimize interventions for patients.

In addition to AUD, many of the other pathological health consequences associated with chronic alcohol misuse emerge during mid-life. These include alcoholic liver disease (ALD),

neurodegeneration, acute and chronic pancreatitis, kidney failure, and alcoholic cardiomyopathy. Indeed, a recent NIAAA-funded study found that alcohol misuse increases the relative risk of three types of cardiac conditions—atrial fibrillation, myocardial infarction, and congestive heart failure. Research using data from the Framingham Heart Study found that every 10 gram increase in daily alcohol consumption increases risk of new-onset atrial fibrillation by 5 percent. Researchers also found that aging aggravates ALD, an effect due in part to lower levels of liver sirtuin, a protein critical for regulating biological processes during aging. NIAAA encourages studies that integrate genetic-, molecular-, cellular-, and systems-level approaches to investigate how alcohol affects tissue and organ function, as well as the development of interventions to improve the diagnosis and treatment of alcohol-related diseases. Key research objectives in these areas include: developing new animal models of alcohol-related disease; identifying biomarkers to distinguish alcoholic and nonalcoholic causes for disease and to monitor alcohol-related disease progression and treatment; developing noninvasive methods of improving ALD detection and diagnosis; and identifying novel molecular targets for ALD treatment.

Intramural Research

The goal of the NIAAA Intramural Program is to provide an incubator for cutting-edge, innovative alcohol research and training. The program supports research on the genetic and neurobiological bases of AUD and related behaviors; the impact of alcohol on brain structure and function; and the molecular and cellular processes underlying the effects of alcohol exposure on the body. Intramural investigators demonstrated that peroxisome proliferator-activated receptor gamma (PPARγ), a molecule that stimulates fat storage in the liver and thus contributes to liver disease, also reduces liver inflammation in animals fed a high fat diet and exposed to binge-levels of alcohol. The study reveals the complex interactions among diet, alcohol, and liver pathology and suggests that blocking PPARγ as a treatment for ALD may result in unintended liver injury leading to pathological consequences. Intramural researchers also developed a novel approach for distinguishing oxytocin—a hormone that acts as a neurotransmitter in the brain—that occurs naturally in the body, from administered oxytocin. Studies show that oxytocin has therapeutic potential for treating AUD, but it was not clear whether systemically administered oxytocin could cross the blood brain barrier. By developing an assay that could distinguish naturally-occurring and administered oxytocin in blood plasma and cerebrospinal fluid, intramural investigators were able to demonstrate that oxytocin does penetrate the brain. These results could advance research on oxytocin as a potential treatment for AUD and other neuropsychiatric disorders. The Intramural Research Program is actively pursuing research to identify novel therapeutic targets for the treatment of AUD and alcohol-related diseases, and to identify and evaluate compounds with promise for treating these diseases.

Research Management and Support (RMS)

RMS activities provide administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards, and research and development contracts. RMS functions also encompass strategic planning, coordination, and evaluation of the NIAAA's programs, regulatory compliance, and liaison with other Federal agencies, Congress, and the public.

Program Portrait 1: NIAAA Alcohol Treatment Navigator[SM]

In any given year, less than 10 percent of individuals diagnosed with alcohol use disorder (AUD) receive treatment, and many of them do not receive the type of care that best fits their needs. Advances in alcohol research over the past 60 years have resulted in effective treatments, including professionally-led, individual, and family-based behavioral interventions as well as medications approved by the Food and Drug Administration. These treatments can be delivered in outpatient, inpatient, and residential settings and most of them by a broad range of health professionals, thus making treatment more accessible to a larger number of individuals. Mutual support groups such as Alcoholics Anonymous can also be an effective option, particularly when combined with professionally-led treatment. Although many AUD treatments are available, people often don't know the full extent of their options or where to turn for help. This is, in part, because treatment takes many forms that are often not well-integrated into the health care system, and people may be uncertain about which options best fit their own situations. These factors can make finding quality care for oneself or a loved one a confusing and daunting task.

In October 2017, NIAAA launched the Alcohol Treatment Navigator[SM] (https://alcoholtreatment.niaaa.nih.gov), an online resource to help people find the treatment option that is right for them. Grounded in decades of clinical and health services research and developed with input from people seeking alcohol treatment, healthcare providers, and researchers, the Navigator offers a comprehensive strategy to help people search for professionally-led, evidence-based alcohol treatment. The Navigator educates consumers on what they need to know about AUD and AUD treatment, and provides 10 recommended questions to ask a potential provider and five signs of higher quality treatment to listen for. It also gives individuals a place to start in locating treatment providers by providing step-by-step instructions for searching several existing online directories of licensed professional therapists (counselors, clinical social workers, clinical psychologists, and psychiatrists), accredited alcohol treatment programs, and board-certified addiction medicine physicians. The tips and strategies offered in the Navigator are applicable for any treatment provider or program that an individual is considering.

With the Navigator, adults searching for AUD treatment will be better able to find care that meets their unique needs, family members will feel empowered to help an adult loved one struggling with AUD, and primary care physicians and other health providers will be confident in screening their patients for AUD knowing that they have a tool to share with their patients who need a referral to alcohol treatment. NIAAA is raising the public's awareness about this important resource through a multi-prong approach involving partnerships with the Substance Abuse and Mental Health Services Administration and other stakeholders and plans to enhance the Navigator website based on user feedback.

Program Portrait 2: Expanding the Addiction Medicine Workforce

In the U.S., less than 10 percent of people with alcohol use disorder (AUD) receive any treatment or help. Routine health care presents a unique opportunity for prevention, early intervention, and treatment of AUD; however, many health care providers do not perform alcohol screening, are not aware of evidence-based treatments, or do not know where to refer patients to treatment. In primary care, alcohol screening is ranked among the most effective clinical preventive services. According to a study of 54 primary care clinics, 88 percent had no policies or requirements to ask patients about alcohol use, and those with policies had no consistent evidence-based methods for screening or referral. This is significant because individuals with AUD more often seek primary care for a health problem related to their alcohol misuse than for the misuse itself.

NIAAA is working to close the treatment gap by encouraging integration of addiction medicine into routine medical care. To assist health care professionals in implementing alcohol screening and brief intervention in their practices, NIAAA developed *Helping Patients Who Drink Too Much: A Clinician's Guide* for adults and *Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide*. These tools are designed to help health care providers overcome barriers to alcohol screening such as lack of familiarity with the process and time constraints. Medication assisted treatment, especially when combined with behavioral interventions, can improve AUD outcomes, but less than 4 percent of patients with AUD use an FDA-approved medication for treatment. NIAAA partnered with the Substance Abuse and Mental Health Services Administration (SAMHSA) to develop *Medication for the Treatment of Alcohol Use Disorder: A Brief Guide*, which is designed to help clinicians incorporate pharmacotherapy into their alcohol treatment practices. NIAAA also worked with the American Society of Addiction Medicine to establish measures for evaluating physician performance in using medications to treat AUD.

A challenge in making addiction medicine mainstream is the lack of health care providers appropriately trained in identifying and addressing alcohol misuse. To expand the addiction medicine workforce, NIAAA, the National Institute on Drug Abuse, and SAMHSA are focused on improving physician training in diagnosis, prevention, and treatment of alcohol and other drug misuse across the continuum of medical training, from medical school through residency, fellowship, and beyond. For example, NIAAA supported the development of model programs for residency training in addiction medicine and the accreditation of new addiction medicine fellowship training programs. These and other efforts have paved the way for integrating addiction medicine into graduate medical education at more than 40 academic medical centers across the country and laid the groundwork for addiction medicine being recognized as a medical subspecialty. NIAAA and its Federal partners are also engaging with medical education groups to design and implement national standards for training in addiction medicine for medical students and residents.

When doctors in routine health care effectively identify alcohol and other drug misuse early and engage patients in care, they can prevent a myriad of costly acute health problems and chronic medical conditions.

Program Portrait 3: Changing Patterns in Alcohol Use by Women

A growing body of evidence indicates that women who drink are at increased susceptibility to short- and long-term alcohol-related consequences, including liver disease, cardiovascular disease, neurotoxicity, and alcohol-related blackouts, compared to men. While alcohol misuse by anyone presents a serious public health concern, women face alcohol-related problems sooner and at lower drinking levels than men. Women who drink are also at greater risk for developing breast cancer than women who do not consume alcohol.

Research shows that alcohol use and misuse among women are increasing. An NIAAA-supported analysis of 2002-2012 data from the National Survey on Drug Use and Health showed an increase in current drinking among women aged 21 and older, and an increase in binge drinking among women aged 21-25, 26-34, and 45-64. A study of adults aged 60 and older found that current drinking and binge drinking increased from 1997-2014 more significantly among women than men. Significant increases in binge drinking as well as alcohol use disorder (AUD) have been observed among women aged 50 and older in other studies. Although men still consume more alcohol than women, these findings suggest that differences between men's and women's drinking patterns are diminishing.

Cultural changes, stress, and other factors may be contributors to the shift in women's drinking patterns. Understanding the causes and consequences of alcohol misuse among women and improving diagnosis, prevention, and treatment of alcohol misuse are critical to addressing women's health. NIAAA encourages basic, clinical, and translational research on: the biological bases of sex differences in the development of AUD and related consequences, factors that increase risk for AUD and co-occurring disorders, alcohol screening and brief intervention targeted to women in prenatal and other settings, interventions to prevent and reduce harmful drinking and related consequences among women, and evidence-based behavioral and pharmacologic treatments that consider the unique needs of women.

Disseminating evidence-based information about alcohol misuse is central to NIAAA's mission. In October 2017, the Institute was the lead sponsor of a national conference on alcohol and opioid use in women and girls that brought together researchers, health care providers, addiction specialists, and policymakers to highlight the latest research on substance misuse among females and promote coordinated approaches for addressing it.

NATIONAL INSTITUTES OF HEALTH
National Institute on Alcohol Abuse and Alcoholism

Detail of Full-Time Equivalent Employment (FTE)

OFFICE/DIVISION	FY 2017 Final			FY 2018 Annualized CR			FY 2019 President's Budget		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Division of Epidemiology and Prevention Research									
Direct:	18	-	18	18	-	18	18	-	18
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	18	-	18	18	-	18	18	-	18
Division of Intramural Research Program									
Direct:	87	1	88	88	1	89	88	1	89
Reimbursable:	10	-	10	10	-	10	10	-	10
Total:	97	1	98	98	1	99	98	1	99
Division of Medications Development									
Direct:	5	-	5	5	-	5	5	-	5
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	5	-	5	5	-	5	5	-	5
Division of Metabolism and Health Effects									
Direct:	10	-	10	10	-	10	10	-	10
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	10	-	10	10	-	10	10	-	10
Division of Neuroscience and Behavior									
Direct:	14	-	14	14	-	14	14	-	14
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	14	-	14	14	-	14	14	-	14
Division of Treatment and Recovery Research									
Direct:	6	-	6	6	-	6	6	-	6
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	6	-	6	6	-	6	6	-	6
Office of Extramural Activities									
Direct:	20	-	20	20	-	20	20	-	20
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	20	-	20	20	-	20	20	-	20
Office of Resource Management									
Direct:	36	-	36	37	-	37	37	-	37
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	36	-	36	37	-	37	37	-	37
Office of Science Policy and Communications									
Direct:	15	-	15	15	-	15	15	-	15
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	15	-	15	15	-	15	15	-	15
Office of the Director									
Direct:	14	-	14	14	-	14	14	-	14
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	14	-	14	14	-	14	14	-	14
Total	235	1	236	237	1	238	237	1	238
Includes FTEs whose payroll obligations are supported by the NIH Common Fund.									
FTEs supported by funds from Cooperative Research and Development Agreements.	0	0	0	0	0	0	0	0	0

FISCAL YEAR	Average GS Grade
2015	12.8
2016	12.8
2017	12.8
2018	12.8
2019	12.8

NATIONAL INSTITUTES OF HEALTH
National Institute on Alcohol Abuse and Alcoholism

Detail of Positions[1]

GRADE	FY 2017 Final	FY 2018 Annualized CR	FY 2019 President's Budget
Total, ES Positions	1	1	1
Total, ES Salary	174,147	175,888	177,647
GM/GS-15	29	29	29
GM/GS-14	51	53	53
GM/GS-13	44	44	44
GS-12	26	26	26
GS-11	6	6	6
GS-10	1	1	1
GS-9	6	6	6
GS-8	5	5	5
GS-7	5	5	5
GS-6	1	1	1
GS-5	1	1	1
GS-4	0	0	0
GS-3	1	1	1
GS-2	0	0	0
GS-1	0	0	0
Subtotal	176	178	178
Grades established by Act of July 1, 1944 (42 U.S.C. 207)	0	0	0
Assistant Surgeon General	0	0	0
Director Grade	1	1	1
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	1	1	1
Ungraded	72	72	72
Total permanent positions	178	180	180
Total positions, end of year	250	252	252
Total full-time equivalent (FTE) employment, end of year	236	238	238
Average ES salary	174,147	175,888	177,647
Average GM/GS grade	12.8	12.8	12.8
Average GM/GS salary	116,065	118,328	119,512

[1] Includes FTEs whose payroll obligations are supported by the NIH Common Fund.