

EXPLANATORY STATEMENT FOR DEPARTMENTS OF LABOR,  
HEALTH AND HUMAN SERVICES, AND EDUCATION, AND  
RELATED AGENCIES APPROPRIATIONS BILL, 2022

SUMMARY OF BUDGET ESTIMATES AND COMMITTEE  
RECOMMENDATIONS

For fiscal year 2022, the Committee recommends total budget authority of \$1,352,922,397,000 for the Departments of Labor, Health and Human Services, and Education, and Related Agencies. This amount includes \$220,757,000,000 in current year discretionary funding consistent with the subcommittee's allocation, and \$2,124,000,000 in allocation adjustments for healthcare fraud and abuse control, Unemployment Insurance Trust Fund program integrity, and for program integrity at the Social Security Administration, in accordance with the allocation for this bill. Fiscal year 2021 levels cited in this explanatory statement reflect the enacted amounts in Public Law 116-260, the Consolidated Appropriations Act, 2021, adjusted for comparability where noted, and do not include fiscal year 2021 supplemental appropriations.

OVERVIEW

The Labor, Health and Human Services, and Education, and Related Agencies [Labor-HHS-Education] appropriations bill constitutes the largest share of non-defense discretionary spending, 30.6 percent of the total in fiscal year 2022. The subcommittee's effective allocation, which includes discretionary funding offset by savings in changes in mandatory programs, is \$48,948,000,000 more than the comparable fiscal year 2021 level.

The Labor-HHS-Education bill provides critical investments that impact countless lives across the country. The programs it supports range from cutting-edge biomedical research that develop life-saving cures for disease to financial resources that help millions of students succeed in postsecondary education. Many of the bills' programs have been severely strained during the COVID-19 pandemic, which has exacerbated health disparities and crippled the economy and labor market. The Committee recognizes the need to invest significant resources in these programs to boost public health and provide much-needed help to struggling families. This bill makes historic investments that pave the way to recovery from the worst pandemic in a century. It expands opportunities for working families, improves access to childcare and early learning, includes significant investments in education, and increases access to affordable healthcare.

The priorities and considerations of the Committee in developing this bill are summarized in the sections below:

## OVERCOMING THE COVID-19 PANDEMIC AND PREPARING FOR THE NEXT PUBLIC HEALTH CRISIS

As a nation, our lack of preparedness for the COVID-19 pandemic was catastrophic. The SARS-CoV-2 virus has altered life as we know it, changing the way we approach healthcare, education, the workforce, and the economy. According to the CDC, between February 29, 2020 and October 15, 2021, the United States recorded nearly 45 million confirmed cases of COVID-19 and more than 720,000 deaths due to the virus. The early stages of the COVID-19 response in the United States were marred by testing failures, which delayed our ability to detect and track the virus, ultimately allowing it to escape containment and spread rampantly across the country. In 18 months, the Nation has suffered four waves of COVID-19; the deadliest peak in January 2021 killed 4,000 Americans a day and infected a quarter-million. The introduction of three widely available, highly effective vaccines against COVID-19 in April 2021 brought new hope that the pandemic was drawing to a close. As more than 188 million people got vaccinated, new cases and deaths declined dramatically in spring and early summer. However, as the more contagious Delta variant of the virus took hold in July, case rates, hospitalizations, and deaths began surging again, particularly in States with low vaccination rates. Currently, nearly 70,000 Americans are hospitalized and more than 1,800 people continue to die from COVID-19 every day. Data indicate that the overwhelming majority of hospitalizations and deaths are among the unvaccinated. In addition to fighting the virus, our public health system must grapple with pervasive disinformation and misinformation that feeds vaccine opposition in some communities. As the resurgence of the virus has demonstrated, COVID-19 is on track to become a pandemic of the unvaccinated, and an endemic, seasonal pathogen that will likely circulate for years to come. With 57 percent of the U.S. population vaccinated, the Delta variant continues to overwhelm hospitals, sickening alarming numbers of children, many of whom remain unable to get vaccinated as they return to in-person learning for the first time in three academic years.

While no community has gone untouched by the pandemic, Black, Latinx, Native, and other people of color continue to suffer disproportionate levels of illness and death from COVID-19. Black and Latinx youth are more likely to have lost a family member to COVID-19, fallen further behind in school and have higher unemployment rates. Although White individuals account for the largest share of unvaccinated adults, Black and Latinx people are less likely to get a COVID-19 vaccine. The pandemic has served as a stark reminder of the deep inequities and systemic racism entrenched within our healthcare and economic systems, and highlighted the critical need to address these issues through strategic, long-term investments. Thanks to funding provided in the American Rescue Plan (Public Law 117-2) to support vaccine confidence, CDC and its partners have started to make inroads in these communities; vaccination rates among American Indian or Alaska Native people are the highest among racial and ethnic minority groups. While this progress is promising, there is still much work to be done.

CDC must redouble its efforts to build trust, increase collaboration, and create tools and resources responsive to the concerns and feedback from communities disproportionately affected by COVID–19 and other health disparities.

The Biden Administration’s 200-page COVID–19 strategy, released on January 21, 2021, offered a radical shift and new hope for our nation’s ability to crush the pandemic. Smarter testing, faster vaccinations, and health equity were cornerstones of the plan that pledged to “listen to science” and enhance data analysis to support officials making evidence-based decisions. The “National Strategy for the COVID–19 Response and Pandemic Preparedness” outlined a centralized response, instructed Federal agencies to invoke the Defense Production Act to expand supplies, created a “pandemic testing board” to expand access to testing, ordered the Occupational Safety and Health Administration to immediately begin considering issuing enforceable requirements to protect workers, called for new guidelines on reopening schools and businesses, and made it clear that the government would begin fully reimbursing States for the cost of using the National Guard to accelerate the pace of vaccinations. In March, Congress passed the \$1.9 trillion American Rescue Plan Act of 2021 (Public Law 117–2), which provided badly needed unemployment assistance, and support for education, childcare, vaccines and testing. COVID–19 vaccines have been phenomenally effective and delivered in record time. According to CDC data, as of October 15, 2021, more than 406 million doses of COVID–19 vaccines have been administered in the United States. However, the dire circumstances for the unvaccinated brought on by the Delta variant demonstrates how the Federal Government must continue to lead with science-based public health efforts to support economic recovery for all and the full re-opening of society.

Even as the Nation struggles to recover from the COVID–19 pandemic, we must take stock of the lessons learned from the worst public health crisis in a century. From testing failures to the lack of a centralized response strategy, a comprehensive retrospective assessment must be completed to understand why the United States failed and help ensure we are better prepared for the next outbreak. We must also recognize and address the long-term impacts of the pandemic on biomedical research, public health, behavioral health, and our education systems.

#### PUBLIC HEALTH PREPAREDNESS AND RESPONSE

The COVID–19 pandemic showed how unprepared we were as a nation for anticipating, preparing for, and responding to a global pandemic. Despite our considerable advantages, including immense resources, biomedical advances, and scientific expertise—the U.S. response floundered. Going into the pandemic, funding for the CDC was 10 percent lower than a decade ago, adjusted for inflation. Our public health workforce was depleted. Since 2009, local health departments have lost 55,000 jobs—a quarter of their workforce. Our public health emergency preparedness plans were designed for geographically discrete disasters like hurricanes or mass shootings, not a national catastrophe that would drag on for more than a year. In addition, our dependence on foreign suppliers for certain

types of personal protective equipment [PPE] like nitrile gloves and gowns caused medical supply shortages at a time when hospitals and frontline healthcare workers needed them most. For months, the U.S. government was unable to provide adequate testing supplies, medical equipment, or basic PPE to States to support their pandemic response. Alarming reports show that the Strategic National Stockpile [SNS] had not replenished some of its inventories since the H1N1 pandemic in 2009–2010, and many of its supplies, including N–95 respirators, were expired. Despite establishing the Public Health Emergency Medical Countermeasures Enterprise [PHEMCE] in 2006 to ensure SNS supply and coordination of response capabilities were in place to protect Americans during public health emergencies, our nation’s ability to secure and distribute supplies failed miserably. There was no clear national leadership in the initial pandemic response; instead Federal authorities punted problems to the States, leaving States to fight each other over limited resources. The Nation has yet to successfully manage its COVID–19 testing arsenal, let alone deploy it in the type of systemic way needed to crush outbreaks in schools, workplaces and communities. Today, as COVID–19 cases continue to surge in many States, hospitals are overrun with patients and healthcare workers are forced to activate crisis standards of care.

In order to address these shortcomings, the Committee recommendation includes the largest budget authority increase for the CDC in nearly two decades. To restore capacity at the world’s pre-eminent public health agency, the bill includes \$600,000,000 in new flexible funding to rebuild public health infrastructure and \$106,000,000, a \$50,000,000 increase, to rebuild the public health workforce following its decades-long erosion. It also includes more than \$715,000,000, a \$20,000,000 increase, for State and local public health emergency preparedness. Within the HHS Assistant Secretary for Preparedness and Response, the bill includes \$905,000,000, a \$200,000,000 increase, for the SNS to maintain and replenish critical medical supplies that were depleted by the pandemic. The Committee directs the Secretary to develop plans for re-envisioning the PHEMCE and SNS to ensure a transparent and deliberative decision-making process for procurement that is scientifically justified, meets healthcare and national security needs, and engages interagency partners in the full range of PHEMCE outlined in the Pandemic All-Hazards Preparedness and Advancing Innovation Act of 2019 (Public Law 116–22).

*Biomedical Advanced Research and Development Authority [BARDA].*—The Committee provides \$823,380,000, an increase of \$226,680,000, to continue investments in BARDA to develop late stage medical countermeasures.

*Hospital Preparedness Program.*—The Committee provides \$296,777,000, an increase of \$16,222,000, for hospitals to improve upon planning and care during emergencies and disasters.

*Pandemic Influenza.*—The Committee provides \$335,000,000 within the Office of the Secretary, an increase of \$48,000,000, to improve the effectiveness of the flu vaccine and better respond to late changes to flu strains.

*Project BioShield.*—The Committee includes \$770,000,000, the same level as fiscal year 2021, to purchase critical medical countermeasures, such as vaccines, therapeutics, and diagnostics.

*Public Health Emergency and Hospital Preparedness.*—The Committee provides \$715,000,000, an increase of \$20,000,000, for CDC's Public Health Emergency Preparedness program to continue preparing communities and hospitals to respond to public health emergencies.

*Universal Flu Vaccine.*—The Committee includes \$260,000,000 in the National Institute of Allergy and Infectious Diseases, an increase of \$40,000,000, to support efforts to develop a universal influenza vaccine that provides long-lasting protection against numerous flu strains, rather than a select few.

## SOLVING URGENT HEALTH CHALLENGES

### INVESTING IN BIOMEDICAL RESEARCH

For a seventh straight year, the Committee has provided a substantial increase for the National Institutes of Health [NIH]. The fiscal year 2022 recommendation for NIH is \$47,922,891,000, an increase of \$4,988,891,000 or twelve percent. With this investment, the Committee will have provided a 58 percent increase over the past 7 years.

As in previous years, the Committee has targeted NIH funding to areas of promise of scientific advancement and urgency, while allowing NIH to maintain flexibility to pursue unplanned scientific opportunities and address unforeseen public health needs. This year's resources are directed toward several specific research programs, including:

*Advanced Research Projects Agency for Health [ARPA-H].*—The bill includes \$2,400,000,000 for ARPA-H, the President's bold and promising proposal to accelerate the pace of breakthroughs in medicine using the Defense Advanced Research Projects Agency as a model.

*Alzheimer's Disease and Related Dementias Research [AD/ADRD].*—The Committee maintains its commitment to finding a treatment and a cure for Alzheimer's disease, increasing funding for AD/ADRD research supported by the National Institute on Aging by \$235,000,000. Since fiscal year 2015, Congress has increased research funding for AD/ADRD by more than 500 percent, making it the largest expenditure of its kind in NIH.

*Opioids, Stimulants and Pain Management.*—The Committee increases support for the Helping to End Addiction Long-term or HEAL initiative by \$270,296,000 and other research related to opioids, pain, and pain management by \$345,359,000.

*Health Disparities Research.*—The bill provides \$330,000,000 to expand research to better understand the root causes and effects of health disparities and how to reduce them.

*COVID-19.*—The Committee includes \$77,500,000 for targeted research related to the impact of COVID-19 on mental health, children who develop multisystem inflammatory syndrome, and to connect researchers with community organizations to increase participation of people from underrepresented communities in clinical trials for COVID-19 treatments and vaccines.

*Brain Research through Advancing Innovative Neurotechnologies [BRAIN] Initiative.*—The Committee continues to strongly support the BRAIN Initiative and provides \$640,000,000 in fiscal year 2022, an increase of \$80,000,000. The BRAIN Initiative is developing a more complete understanding of brain function and has the potential to help millions of people who suffer from a wide variety of neurological and psychiatric disorders such as Parkinson’s disease, schizophrenia, Alzheimer’s disease and dementia, depression, and traumatic brain injury.

*Maternal Mortality.*—The Committee includes an increase of \$30,000,000 for research to improve pregnancy outcomes and reduce maternal mortality.

*Combating Antimicrobial Resistance [AMR].*—The Committee provides no less than \$550,000,000, an increase of \$25,000,000, to support National Institute of Allergy and Infectious Diseases research on the mechanisms of resistance, therapeutics, vaccines and diagnostics, and to support the training of new investigators to improve AMR research capacity.

*Regional Biocontainment Laboratories [RBL].*—The Committee provides a further installment of \$50,000,000 in funding for the RBLs that assist national, State, and local public health efforts in the event of a bioterrorism or infectious disease emergency.

As important as these specific initiatives are, the Committee continues to place a high value on support for all Institutes and Centers and has provided each at a minimum an inflation adjustment of 2.4 percent.

#### INCREASING ACCESS AND EQUITY IN HEALTH CARE

Many populations across the country, whether defined by race, ethnicity, or geography, experience higher rates of certain diseases and lack the same access to health services as their peers. Addressing these disparities remains one of our nations’ central challenges. Accordingly, the Committee increases its efforts to expand access and equity in healthcare through a number of programs, including: community health centers and consumer assistance programs to increase access to high quality healthcare; health professions training to ensure a diverse medical provider community; research initiatives focused on underserved communities; and programs that target health disparities like the maternal mortality crisis and social determinants of health. The bill includes:

*Community Health Centers.*—\$1,793,772,000, an increase of \$110,000,000, to expand access to primary care in underserved areas of the country, including urban, rural, and frontier areas.

*Consumer Assistance, Outreach and Enrollment.*—An increase of \$276,099,000 for the Centers for Medicare and Medicaid Services [CMS] to improve the administration of Medicare, Medicaid, the Affordable Care Act [ACA] and oversight of nursing homes. This includes no less than \$50,000,000 to support Consumer Assistance Programs in both the Federal and State-based healthcare exchanges to help consumers understand and access affordable health coverage options. It also supports robust investments in the Navigator Program and other ACA outreach efforts.

*Health Disparities Research.*—An increase of \$330,000,000 across multiple NIH Institutes and Centers, to expand efforts to identify

and reduce health disparities. The recommendation also includes \$30,000,000 for the new Community Engagement Alliance Against COVID-19 Disparities [CEAL] Initiative to connect researchers with community organizations to conduct research and increase participation from underrepresented communities in clinical trials for COVID-19 treatments and vaccines.

*Health Professions and Diversity Programs.*—The bill supports initiatives aimed at increasing the diversity of the healthcare workforce and access to quality healthcare in underserved areas, including:

- National Health Service Corps.*—\$150,000,000, an increase of \$30,000,000, to expand access to quality opioid and substance use disorder [SUD] treatment in rural and underserved areas nationwide;
- Health Careers Opportunity Program.*—\$18,500,000, an increase of \$3,500,000, to assist students from minority and economically disadvantaged backgrounds navigate careers into the health professions; and
- Nursing Workforce Diversity.*—\$23,343,000 an increase of \$3,500,000, for increasing nursing education opportunities for underrepresented populations, including racial and ethnic minorities, among registered nurses.

*Institutional Development Award [IDeA].*—\$410,453,000, an increase of \$13,880,000, to broaden the geographic distribution of NIH funding. In addition to enhancing the competitiveness of investigators and the research capabilities in these States, the program serves their unique populations, such as rural and medically underserved communities.

*Maternal Mortality.*—Each year, approximately 700 women in the United States die from conditions related to or associated with pregnancy or childbirth. To address the unacceptably high levels of maternal mortality, which disproportionately impact women of color, the bill proposes a total of \$237,000,000, an increase of \$170,000,000, for the initiative, including:

- Early Childhood Development Expert Grants.*—\$25,000,000 for a new HRSA program to help cities place early childhood development experts in pediatric offices with a high percentage of Medicaid and Children’s Health Insurance Program patients.
- Implicit Bias Training Grants for Health Providers.*—\$7,000,000 to support new HRSA grants to train healthcare providers on implicit bias with the goal of reducing racial disparities;
- Improving Maternal Outcomes.*—\$30,000,000, for the NIH new Implementing a Maternal Health and PRenancy Outcomes Vision for Everyone (IMPROVE) initiative to expand research to reduce preventable causes of maternal death and improve the health of pregnant and postpartum women;
- Pregnancy Medical Home Demonstration.*—\$25,000,000 for a new HRSA program to incentivize maternal healthcare providers to provide integral healthcare services to pregnant women and new mothers;

—*Safe Motherhood and Infant Health*.—\$43,000,000, an increase of \$26,000,000, for CDC to expand support for State Maternal Mortality Review Committees; and

—*State Maternal Health Innovation Grants*.—\$55,000,000, an increase of \$32,000,000, to expand HRSA grants for maternal care services, workforce needs, and postpartum and inter-conception care services.

*Rural Health*.—The Committee includes \$402,709,000 to support HRSA’s rural health programs, an increase of \$73,190,000, for underserved rural communities to better address their healthcare needs and help small rural hospitals improve their financial and operational performance.

*Social Determinants of Health*.—\$153,000,000, a \$150,000,000 increase, to expand and improve CDC’s health equity programs in all States and Territories. This funding will improve health outcomes among persons experiencing health disparities and inequities by expanding and implementing SDOH accelerator plans, launching an implementation program, and providing technical assistance to communities that are building the evidence base through improved data collection to better understand health disparities.

*Women’s Health*.—The Committee includes \$500,000,000 for the Title X–Family Planning program, a vital component of the healthcare safety net that is essential to addressing health inequities. This is an increase of \$213,521,000 to expand preventive and primary healthcare services at clinics nationwide. The bill requires that all recipients of funds offer services consistent with the best available evidence-based standards, including the Quality Family Planning guidelines from the CDC. The bill also includes:

—\$136,800,000 for the Teen Pregnancy Prevention Program, an increase of \$29,000,000, to expand evidenced-based prevention approaches to prevent teen pregnancy and Sexually Transmitted Infections among adolescents;

—\$43,140,000 for the HHS Office of Women’s Health, an increase of \$8,000,000, to enhance crosscutting initiatives and public-private partnerships to address the disparities in women’s health. This includes \$8,100,000 to help victims of violence and improve prevention programs and \$5,000,000 to integrate high-quality contraceptive care into State primary healthcare and safety net systems; and

—\$57,385,000 for NIH’s Office of Research on Women’s Health, an increase of \$5,905,000 above the fiscal year 2021 enacted level and \$5,082,000 above the budget request. This office ensures women’s health research and research on the biological and sociocultural influence of sex and gender are included within the larger NIH scientific framework.

#### ENDING THE HIV EPIDEMIC

An estimated 38,000 Americans are newly diagnosed with HIV every year and, since 1981, more than 700,000 Americans have lost their lives to the disease. The Ending the HIV Epidemic Initiative [EHE] is an HHS-wide effort to reduce new infections by 75 percent in the first 5 years of the initiative and by 90 percent over a 10-year period, with the goal of decreasing the number of new HIV infections to fewer than 3,000 per year. The bill includes

\$643,000,000, an increase of \$245,000,000, to focus on these high-risk areas by expanding HIV outreach, diagnoses, treatment, prevention, research, and response activities. This includes:

*HRSA Community Health Centers.*—\$152,250,000, an increase of \$50,000,000, to support high-need jurisdictions to increase prevention and treatment services for people at high risk for HIV transmission, including Pre-Exposure Prophylaxis [PrEP]-related services, outreach, and care coordination through new grant awards in areas currently served by health centers. For the third year of this initiative, the Committee provides increased funding to expand its geographic scope to include 140 new health centers, resulting in the total participation of approximately 440 health centers across the country.

*HRSA Ryan White Program.*—\$190,000,000, an increase of \$85,000,000, to support HIV care and treatment services; support evidence informed practices to link, engage, and retain HIV-positive individuals in care; and continue to build capacity into the system.

*Prevention Programs.*—\$275,000,000, an increase of \$100,000,000, for CDC activities to leverage HIV prevention infrastructure to conduct strategic testing linked to immediate treatment and engagement with the clinical care system. This effort will expand the use of PrEP and develop approaches to better detect and respond to clusters of HIV cases. In addition, CDC will use resources to invest in core HIV prevention programs at State and local health departments to provide the foundation for ensuring the success of new activities.

*NIH Centers for AIDS Research [CFAR].*—\$71,000,000, an increase of \$10,000,000, for CFAR dissemination of best practices based on state-of-the-art biomedical research findings, and by collecting and disseminating data on the effectiveness of approaches used in EHE.

#### COMBATING OPIOID AND SUBSTANCE USE

The instability and isolation caused by the coronavirus pandemic led to increased substance use as an increasing number of Americans turned to substances to cope with the stress of the pandemic. Drug overdose deaths are predicted to reach the highest level ever recorded last year, with provisional data from the CDC showing 93,300 Americans died from drug overdoses in 2020, representing a nearly 30 percent increase over 2019. More than 69,000 of those deaths were caused by opioids, up from approximately 51,000 in 2019. Deaths caused by stimulants also increased during this period. Between 1999 and 2019, nearly 850,000 people in the United States died from a drug overdose, over 70 percent of which in 2019 were overdoses caused by opioid misuse. The Committee continues to regard the opioid epidemic as one of the foremost public health issues facing the Nation.

In order to address the opioid and substance use crisis, the Committee recommends \$9,602,461,000 within HHS, an increase of \$2,913,471,000 from fiscal year 2021.

*Agency for Healthcare Research and Quality.*—The Committee includes \$7,000,000 for research related to opioid use and misuse, an increase of \$4,000,000.

*Centers for Disease Control and Prevention.*—The Committee includes \$663,369,000, a \$187,790,000 increase, for improved prevention and surveillance efforts in all 50 States and continues to direct CDC to make stimulants an eligible use of funds. In addition, the Committee includes \$30,000,000 a \$17,000,000 increase, to address the alarming trend of increased infectious diseases associated with the opioid epidemic.

*Certified Community Behavioral Health Clinics.*—The bill includes \$350,000,000, an increase of \$100,000,000, to provide grants to clinics certified by their State to provide treatment for those with mental health illness. The Committee expects SAMHSA will continue to provide competitive grants to those areas also impacted by the opioid crisis.

*HRSA Behavioral and Mental Health Workforce Training.*—The bill provides \$215,000,000 to support and expand the behavioral and mental health workforce, including increases for the Loan Repayment for Substance Use Disorder Treatment Workforce program and the Mental and Substance Use Disorder Workforce Training Demonstration.

*National Institutes of Health.*—The Committee includes \$810,886,000 for the Helping to End Addiction Long-term or HEAL initiative, an increase of \$270,296,000 for research related to opioid addiction, development of opioid alternatives, pain management, and addiction treatment at the National Institute of Neurological Disorders and Stroke and the National Institute on Drug Abuse, as well as an additional \$345,359,000 across multiple Institutes and Centers to broadly support research related to opioids, pain and pain management.

*Infant Plans of Safe Care.*—The Committee includes \$60,000,000 for Child Abuse Prevention State Grants to help States develop and implement infant plans of safe care and improve services for infants affected by substance use disorder, and their families.

*Preventive Services for Children At-Risk of Entering Foster Care.*—The Committee provides \$30,000,000, an increase of \$10,000,000, for Kinship Navigator Programs. This program improves services available to grandparents and other relatives taking primary responsibility for children because the child's parent is struggling with opioid addiction or substance use disorder. In addition, the bill also includes \$7,000,000 for Regional Partnership Grants and family-focused residential treatment programs, to improve the coordination of services for children and families affected by opioid and other substance use disorders and help families remain together during treatment.

*Rural Communities Opioid Response Program.*—The Committee provides \$165,000,000 for the Rural Communities Opioid Response Program, which provides funding and technical assistance to local, regional, and State-level partners to address opioid use prevention, treatment, and recovery needs in high-risk rural communities.

*SAMHSA Programs of Regional and National Significance [PRNS].*—The Committee provides \$643,364,000, an increase of \$146,687,000, for PRNS treatment programs, including: alternatives to opioids for pain management in emergency department settings; recovery and workforce assistance; comprehensive opioid

recovery centers; first responder training; medication-assisted treatment; and pregnant and postpartum women.

*Substance Abuse Prevention and Treatment Block Grant.*—The Committee includes \$3,008,079,000 an increase of \$1,150,000,000 for the Substance Abuse Prevention and Treatment Block Grant and includes a new, 10 percent set aside for recovery programs.

*State Opioid Response Grants.*—The Committee provides \$2,000,000,000 for flexible grants dedicated to State responses to opioid abuse, an increase of \$500,000,000 over the fiscal year 2021 enacted level. The bill continues the 15 percent set-aside for States with the highest age-adjusted mortality rate related to opioid use disorders.

#### EXPANDING ACCESS TO MENTAL HEALTH CARE

The COVID–19 pandemic worsened the mental health challenges that a growing number of Americans face. Approximately one in five adults in the United States experience mental illness in a given year and one in five youth aged 13–18 experiences a severe mental health disorder. Over the past year, rates of anxiety and depression in adults have roughly tripled, with more than one in four adults in the United States reporting symptoms, up from one in ten in 2019. Additionally, more adults are reporting new or increased substance use as a way to manage stress during the pandemic.

To improve access to mental health services, the Committee includes \$2,970,528,000, an increase of \$1,178,253,000. The Committee's recommended investments include:

*Community Mental Health Block Grant [MHBG].*—The recommendation includes \$1,582,571,000, an increase of \$825,000,000 for the MHBG. The recommendation includes a 10 percent set aside for early intervention and prevention efforts for children and adults and continues the set aside for crisis services from the fiscal year 2021 bill.

*Suicide Prevention.*—The Committee provides \$207,821,000, an increase of \$105,706,000, to address the alarming trend of rising suicide rates in the United States since 1999. The Committee includes investments in a variety of suicide prevention programs, including the Zero Suicide initiative, and \$24,000,000, a \$12,000,000 increase, in CDC's suicide prevention program. The Committee also recommends \$108,821,000, an increase of \$84,821,000, for the Suicide Prevention Lifeline, to build the infrastructure necessary to transition to a three digit number in July 2022.

*Certified Community Behavioral Health Clinics.*—The Committee includes \$350,000,000, an increase of \$100,000,000, to support comprehensive mental health services for youth and adults.

*Mental Health Research.*—The Committee includes \$2,218,900,000, an increase of \$112,998,000 above fiscal year 2021, for the National Institute of Mental Health for continued NIH research on mental health disorders, including \$25,000,000 to expand research on the impact of the COVID–19 pandemic on mental health.

## COMBATTING GUN VIOLENCE AND COMMUNITY VIOLENCE

In July, the Government Accountability Office [GAO] reported that gun violence accounts for about 30,000 hospital stays and about 50,000 emergency room visits annually. More than 15 percent of firearm injury survivors are readmitted at least once after initial treatment, costing an additional \$8,000 to \$11,000 per patient. Because most of the victims are low-income, the burden falls on safety-net programs like Medicaid, generating healthcare costs that far exceed \$1,000,000,000 annually. GAO's findings come on the heels of reports that 2020 was the deadliest year for gun violence in decades, with nearly 20,000 deaths due to homicides and unintentional injuries, and 24,000 deaths by suicide with a gun. To understand how society can better prevent gun-related injuries and deaths, the Committee provides \$50,000,000, an increase of \$25,000,000 divided evenly between the CDC and NIH for research on firearm injury and mortality prevention. Given violence and suicide have a number of causes, the recommendation expects CDC and NIH to take a comprehensive approach to studying these underlying causes and evidence-based methods of prevention of injury, including crime prevention.

The recommendation includes a historic investment, \$115,000,000, a \$100,000,000 increase, in a new community violence initiative at CDC. This funding will support community-based violence interventions that focus on those most at risk of being victims or perpetrators of violence. Building off of the work of its five National Centers of Excellence in Youth Violence Prevention, CDC will fund additional awards and further build the evidence-base for preventing violence in communities experiencing the greatest burden, and reduce the racial, ethnic and economic inequities that characterize such violence across the country.

The bill also provides \$18,750,000, an increase of \$6,250,000 within SAMHSA for discretionary grants to support efforts in high-crime, high-poverty areas and, in particular, communities that are seeking to address relevant impacts and root causes of civil unrest, community violence, and collective trauma.

## INVESTING IN CHILDREN, FAMILIES, STUDENTS AND WORKERS

### INCREASING ACCESS TO HIGH-QUALITY EARLY CHILDHOOD CARE AND EDUCATION

The Committee makes historic investments in high-quality child care and early education programs by including \$19,693,000,000, an increase of \$2,759,000,000, over fiscal year 2021 levels.

*Child Care and Development Block Grants [CCDBG].*—The Committee recommendation includes \$7,311,000,000, an increase of \$1,400,000,000, to support high-quality child care for working families. The COVID-19 pandemic exposed the fragility of our child care system. The lack of available and affordable child care options meant that millions of Americans—mainly women and women of color—were forced to take unpaid leave to care for their children. The ability for families to find child care is critically important for working parents with young children and access to high-quality

programs is essential to building our economy. This investment in CCDBG will serve over 2 million children in fiscal year 2022. This builds upon the \$3,500,000,000 in the Coronavirus Aid, Relief, and Economic Security [CARES] Act (Public Law 116–136), \$10,000,000,000 through the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (Public Law 116–260), and \$39,000,000,000 in the American Rescue Plan Act (Public Law 117–2).

*Head Start.*—The Committee recommendation includes \$11,932,095,000, an increase of \$1,184,000,000, to help all Head Start programs continue to provide high-quality early childhood education for children and families beginning before birth through age five. The bill includes \$234,000,000 in cost-of-living adjustments for Head Start teachers and staff, \$250,000,000 in quality improvement funding to help programs offer trauma and mental health services to Head Start families, and \$500,000,000 to expand Early Head Start and Early Head Start Partnership Programs.

*Preschool Development Grants.*—The Committee includes \$450,000,000, an increase of \$175,000,000, for Preschool Development Grants. The additional funding will allow States to build capacity to offer preschool and early childhood education programs to children birth-age five from low to moderate income families.

#### INCREASING ACCESS TO HIGH-QUALITY EDUCATION FOR ALL STUDENTS

*Title I–A Grants to LEAs.*—The Committee includes \$33,086,802,000, an increase of \$16,550,000,000, for Title I–A grants to school districts, to provide additional support to schools with a significant number of students living in poverty and help address the educational needs of low-income students. The Committee recommendation would be the largest increase in the program’s history and is equally split between targeted grants and education finance incentive grants. These additional funds could allow grants to be made to 11,000 public schools eligible for a Title I–A grant in 2019–2020 that did not receive one and increase the size of Title I–A grants to the approximately 60,000 public schools, or roughly 60 percent of all public schools nationwide, that received a grant in 2019–2020.

*School Support and Improvement.*—The Title I–A grant program authorizes the majority of the Federal accountability and school improvement requirements, including a set-aside of 7 percent of each State’s total Title I–A grants for LEAs for school improvement activities to support schools identified for comprehensive support and improvement, targeted support and improvement, and additional targeted support. At the funding level recommended in the bill, the set-aside for school improvement activities will approximately double to an estimated \$2,300,000,000. According to a recent GAO report on school improvement, the average grant award in 2019–2020 ranged from a minimum of \$31,000 to a maximum of \$444,000. Additional resources provided in this bill would support more robust award amounts to help schools implement evidence-based interventions needed to better meet the needs of their students. GAO also found that 43 of 51 States stated it was somewhat or very challenging to help LEAs identify resource inequities as required under

ESEA. The Committee believes additional resources provided in this bill, including additional administrative resources available to all States, and Department technical assistance and support could help address these challenges and support improved student outcomes.

*IDEA Special Education.*—The Committee recommendation includes \$15,537,429,000, an increase of \$2,599,972,000, for IDEA Part B State Grants. These funds would support services to an estimated 7.6 million students with disabilities. If enacted, it would raise the Federal contribution by two percentage points to 15 percent of average per pupil expenditures, the largest increase in two decades. State and local taxpayers must cover the shortfall in the promised 40 percent Federal share of average per pupil expenditures. The bill also includes \$502,620,000, an increase of \$105,000,000, for Preschool Grants and \$731,850,000, an increase of \$250,000,000, for Grants for Infants and Families, to support the educational and developmental needs of children with disabilities ages 3–5 and birth to 2, respectively.

*English Language Learners.*—The Committee recommends an appropriation of \$917,400,000, an increase of \$120,000,000, for the English Language Acquisition [ELA] program. If enacted, this would be the largest increase in the program in 20 years. Roughly 10 percent or five million public school students were English Language Learners in the fall of 2018. Increased appropriations are critical for meeting the needs of students throughout the United States, where the percentage of public school students who were ELLs was higher in fall 2018 than in fall 2010 in 42 States and the District of Columbia.

*Impact Aid.*—The Committee recommendation includes \$1,565,838,000, an increase of \$64,726,000, for Impact Aid which helps make up for lost local revenue because of the presence of Federal activities and federally owned land that would otherwise be available to support more than 1,000 local school districts. These districts face unique challenges that include educating children living on federally owned land, such as military bases, which is exempt from local taxes, a primary source of revenue for LEAs.

*School-Based Health Professionals.*—The Committee recommendation includes \$800,000,000 within the Safe Schools National Activities Program for new awards under the Mental Health Services Professional Demonstration Grant Program established in the Department of Education Appropriations Act, 2019 and the School Based Mental Health Services Grant Program established in the Department of Education Appropriations Act, 2020. These programs were created to increase the number of qualified, well-trained mental health professionals in schools, including school counselors, social workers, psychologists, or other mental health professionals, and could also support school nurses.

*Full Service Community Schools.*—The Committee recommendation includes \$400,000,000, an increase of \$370,000,000, for Full-Service Community Schools. This program provides support for the planning, implementation, and operation of full-service community schools that improve the integration, accessibility, and effectiveness of services for children and families, particularly for children attending high-poverty schools, including high-poverty rural schools.

*Improved Assessments.*—The Committee recommendation includes \$58,811,000, an increase of \$50,000,000, for competitive grants to SEAs or consortia of SEAs to carry out activities designed to improve the quality, validity, and reliability of State academic assessments. These grants could help measure student academic achievement of all ESEA subgroups of students through the use of multiple measures from multiple sources or evaluate achievement through the development of comprehensive instruments that emphasize mastery of academic standards and aligned competencies in a competency-based education model.

*Student Support and Academic Enrichment Grants.*—The Committee includes \$1,320,000,000, an increase of \$100,000,000, for grants to school districts to support a wide-range of activities focused on promoting well-rounded education, safe learning schools and learning environments, and access to education technology.

*Magnet Schools.*—The Committee recommends \$179,000,000, an increase of \$70,000,000, for the Magnet Schools Assistance program [MSAP]. This program supports grants to school districts to establish and operate magnet schools that are part of a court-ordered or federally approved voluntary desegregation plan. Magnet schools are designed to attract substantial numbers of students from different social, economic, ethnic, and racial backgrounds. At this level, Education would be able to make approximately 50 new awards for the creation and expansion of magnet school programs.

*Rural Education.*—The Committee recommendation includes \$200,000,000, an increase of \$12,160,000, in additional resources for rural school districts and schools that may be used for a range of uses to help them overcome unique resource and capacity issues.

*Education for Homeless Children and Youth.*—The Committee recommends \$146,500,000, an increase of \$40,000,000, for assistance to each State to support an office of the coordinator of education for homeless children and youth to develop and implement State plans for educating students experiencing homelessness, and to make subgrants to LEAs to support the education of those children. Additional assistance is needed as the number of identified, enrolled students reported as experiencing homelessness was nearly 1.4 million students in academic year 2018–19, significantly increased from 1.1 million students in 2010–11, yet insufficient funding resulted in just one-quarter of the nation’s LEAs receiving subgrants needed to serve children and youth through this program.

*Education Research.*—The Committee recommends \$267,880,000 for education research, development, evaluation, and national dissemination activities. If enacted, this would be the largest increase in the agency’s history and support more than \$70,000,000 in new awards, including for research on understanding and addressing the impact of lost instructional time due to the COVID–19 pandemic. These funds support activities that are aimed at expanding fundamental knowledge of education and promoting the use of research and development findings in the design of efforts to improve education. The Committee recommendation also includes \$65,000,000, an increase of \$6,500,000, for the National Center for Special Education Research.

*Office for Civil Rights.*—The Committee recommends \$144,000,000 for the Office for Civil Rights [OCR]. OCR is respon-

sible for the enforcement of laws that prohibit discrimination on the basis of race, color, national origin, sex (including sexual orientation and gender identity), disability, and age in all programs and institutions that receive financial assistance from the Department. To carry out this responsibility, OCR investigates and resolves discrimination complaints, monitors desegregation and equal educational opportunity plans, reviews possible discriminatory practices by recipients of Federal education funds, and provides technical assistance to recipients of funds to help them meet these civil rights requirements. Additional funds would support an increased staffing level needed to help OCR effectively fulfill its mission.

#### IMPROVING POSTSECONDARY EDUCATION OPPORTUNITIES FOR ALL STUDENTS

*Pell Grants.*—The Committee recommendation includes the largest increase in the discretionary portion of the maximum Pell grant since fiscal year 2009. Consistent with the administration’s budget request, the Committee recommendation includes a \$400 increase in the discretionary portion of the maximum Pell grant award that when combined with mandatory funding under current law would provide a total maximum award of \$6,895. The Committee recommendation also includes a \$1,808,608,000 increase in discretionary funding for the Pell grant program, the first increase in annual discretionary funding for the program since fiscal year 2011. While significant unobligated balances remain available, this puts the program on sounder footing for future years, including supporting recent program expansions that will be implemented in coming years and the increase in the maximum award provided in this bill.

*Federal TRIO Program.*—The Committee recommendation includes \$1,282,761,000 for Federal TRIO programs, an increase of \$185,761,000. The Committee recommendation will support increases for each of the TRIO programs, including funding down the slate of high-quality applications from previous competitions.

*Strengthening Historically Black Colleges [HBCUs] and Minority Serving Institutions.*—The Committee provides \$1,084,054,000, an increase of \$295,000,000 for Aid for Institutional Development programs. This funding helps address historical inequities in higher education and strengthen HBCUs and other minority serving institutions. In addition, the Committee recommendation includes \$311,018,000, an increase of \$60,000,000, for Howard University.

*Child Care Access Means Parents in School.*—The Committee recommendation includes \$110,000,000 for the CCAMPIS programs, doubling funding for the program. The Committee recommendation also lifts the current caps on grants that will allow current and new grantees to be eligible for increased funding to support convenient, high-quality child care options for more students.

*Adult Education.*—The Committee recommendation includes \$723,000,000, an increase of \$34,333,000 for Adult Education programs.

*Career and Technical Education [CTE].*—The Committee recommendation includes \$1,409,848,000, an increase of \$67,579,000, for CTE State grants. This funding helps States develop, expand,

and improve their CTE programs in high school and post-secondary settings, and create pathways beginning in high-school to in-demand jobs and careers. This includes up to \$15,000,000 for innovative middle and high school CTE projects aimed at advancing equity and building the evidence-base for what works in CTE, particularly for underserved students, which may include expanding career pathways opportunities for middle and high school students.

SUPPORTING WORKERS AND WORKFORCE DEVELOPMENT IN A  
CHANGING ECONOMY

*Workforce Development State Grants.*—The Committee recommendation includes \$2,938,102,000, an increase of \$92,770,000, for Workforce Innovation and Opportunity Act [WIOA] State grants. These grants, which support adults, youth, and dislocated workers, provide flexibility to State and local governments to meet their own unique job training needs, and form the bedrock of the Federal workforce development effort. In addition, the Committee recommendation includes \$684,862,000, an increase of \$14,810,000 for Employment Service State Grants under the Wagner-Peyser Act.

*Apprenticeship Grants.*—The Committee recommendation includes \$245,000,000, an increase of \$60,000,000 for Registered Apprenticeship Grants. This increase will help expand Registered Apprenticeships to new sectors and new occupations, and increase access for historically underrepresented groups.

*Youth Programs.*—The Committee recommendation includes \$120,000,000, an increase of \$23,466,000, for Youthbuild, and \$25,000,000 for a new National Youth Employment Program, to provide disconnected and at-risk youth employment opportunities.

*Reentry Employment Opportunities [REO].*—The Committee recommendation includes \$125,000,000, an increase of \$24,921,000, for the REO program. This will provide adults and youth involved in the criminal justice system with training that leads to industry-recognized credentials and apprenticeships.

*Veterans' Employment and Training Service.*—The Committee recommendation includes \$325,331,000, an increase of \$8,990,000, for programs targeted towards employment needs of separating service members and veterans.

*Unemployment Insurance [UI].*—The Committee recommendation includes \$2,816,214,000, an increase of \$509,398,000 for State Unemployment Insurance Operations, to support the state administration of unemployment insurance programs. This increase will support the first update in decades to the factors used to estimate state UI costs. In addition, the Committee recommendation includes \$68,000,000, an increase of \$50,000,000, to support the development of information technology solutions that can be deployed in States to ensure timely and equitable access to UI benefits.

PREVENTING DOMESTIC AND GENDER-BASED VIOLENCE AND  
PROMOTING CHILD WELFARE

The bill includes \$453,450,000, a \$270,950,000 increase in funding over fiscal year 2021 levels to help survivors and their families access supportive services such as healthcare, housing, early child-

hood education, and child support. The bill allows grantees to offer cash assistance for domestic violence survivors and their families. The Committee's recommendation includes \$23,000,000 for the Domestic Violence Hotline, which provides assistance and information to adult and youth survivors of family violence, domestic violence or dating violence.

The bill also includes increases in programs that prevent child abuse and neglect including \$125,000,000, an increase of \$34,909,000 for Child Abuse and Prevention grants to States and \$85,000,000, an increase of \$24,340,000 for Community Based Child Abuse Prevention programs. The bill also supports the President's budget request for new child welfare research funding to address the overrepresentation of children of color in the child welfare system.

#### ENSURE WORKERS' HEALTH, SAFETY, AND RIGHTS ARE PROTECTED

*Wage and Hour Division [WHD].*—The Committee recommends \$278,700,000, an increase of \$32,700,000, for WHD to administer and enforce laws covering more than 148 million workers. These laws include the Federal minimum wage, overtime pay, record-keeping, and child labor requirements of the Fair Labor Standards Act. WHD recovers an average of \$1,120 in back wages for each employee as a result of its investigations into employer wage theft and illegal compensation practices, so enacting this recommendation will mean more workers will be able to keep the pay they've earned and access the rights afforded to them under the nation's labor laws.

*Occupational Safety and Health Administration [OSHA].*—The Committee recommends \$665,924,000, an increase of \$74,137,000, for OSHA, which is responsible for enforcing the Occupational Safety and Health Act of 1970 in the Nation's workplaces. The recommendation will strengthen OSHA's capacity to ensure employers provide safe and healthful workplaces. The recommendation includes an increase of \$19,881,000 for approximately 200 additional staff for OSHA's enforcement program. The recommendation also includes \$118,875,000, an increase of \$8,800,000, for States that have chosen to administer their own safety and health program as protective as OSHA. Finally, the recommendation includes \$28,450,000, an increase of \$10,450,000, to implement a strong regulatory agenda, including standards on infectious diseases, workplace violence prevention, and heat stress.

*Office of Federal Contract Compliance Programs [OFCCP].*—The Committee recommendation includes \$135,732,000, an increase of \$29,756,000, to rebuild the lost capacity of OFCCP, which has experienced a 40 percent reduction in its staffing level as compared to a decade ago. OFCCP administers and enforces three equal employment opportunity laws that make it unlawful for contractors and subcontractors doing business with the Federal Government to discriminate in employment because of race, color, religion, sex (including sexual orientation and gender identity), national origin, disability, or status as a protected veteran.

*Employee Benefits Security Administration [EBSA].*—The Committee recommendation includes \$222,475,000, an increase of \$41,475,000, for EBSA. This includes \$27,083,000 to restore en-

forcement capacity lost in the past 5 years when EBSA investigative staff decreased by 22 percent. EBSA is responsible for protecting more than 154 million workers, retirees and their families who are covered by approximately 722,000 private retirement plans, 2.5 million health plans, and 885,000 other welfare benefit plans.

*Mine Safety and Health Administration [MSHA].*—The Committee recommendation includes \$402,209,000, an increase of \$22,393,000, for MSHA.

*Bureau of International Labor Affairs [ILAB].*—The Committee recommendation includes \$125,751,000, an increase of \$29,626,000, for ILAB to ensure workers and businesses in the United States are not put at a competitive disadvantage by trading partner countries failing to abide by labor provisions of trade agreements and trade preference programs. The bill continues language setting aside funding for grants, contracts and other arrangements for technical assistance on worker rights and for combatting the worst forms of child labor, with no less than \$30,175,000, an increase of \$16,675,000 more than last year's bill, available for worker rights programs and no less than the fiscal year 2020 level of spending for combatting international child labor. The Committee recommendation also includes \$7,000,000 for ILAB to investigate and report on global supply chains that provide inputs produced by forced or child labor to final products.

*Office of Disability Employment Policy.*—The Committee recommends \$42,711,000, an increase of \$4,211,000, for the Office of Disability Employment Policy to further the objective of eliminating physical and programmatic barriers to the training, labor force participation and employment of people with disabilities, including the transition to competitive, integrated employment for youth and adults with disabilities.

#### FOLLOWING THROUGH ON OUR HUMANITARIAN COMMITMENTS

*Refugee Programs.*—The Committee recommendation supports an estimated 125,000 refugee arrivals in fiscal year 2022. After a significant decrease in refugee admissions in recent years, the Committee recommendation reflects our re-commitment to the world's most vulnerable populations. The Committee recommendation includes \$605,000,000, an increase of \$251,000,000 for the Transitional and Medical Services program, which provides short-term financial and medical assistance to newly arrived refugees; and \$450,000,000, an increase of \$242,799,000 for Refugee Support Services, to provide a variety of social services to refugees, including job training and placement, case management, and emergency assistance. The Committee recommendation also includes \$39,480,000, an increase of \$10,725,000 for the Victims of Trafficking program; and \$27,000,000, an increase of \$10,000,000 for the Victims of Torture program.

*Unaccompanied Children.*—The Committee recommendation includes \$4,900,000,000, an increase of \$3,596,755,000, over the fiscal year 2021 enacted level, and \$1,616,533,000 more than the budget request. Combined with \$2,500,000,000 in emergency funding provided in the Continuing Appropriations Act 2022 (Public Law 117-43), this would support a fiscal year 2021 program level of

\$7,400,000,000. The Committee recommendation represents a responsible approach to budgeting and funding the UC program. In recent years annual funding for the program has been significantly less than actual funding needs. Further, the COVID–19 pandemic has created unprecedented challenges for the UC program and has significantly decreased HHS’ capacity in State-licensed shelters and its ability to quickly respond to changing needs. The Committee recommendation will provide certainty in funding so that HHS can invest in long-term solutions and improvements so that the UC program is more resilient and better-prepared for future challenges. In addition, the Committee recommendation includes dedicated funding to improve services for children. This includes \$300,000,000 for legal services, including \$200,000,000 to expand access to legal counsel with the goal of all children having access to counsel during their immigration proceedings. It also includes \$250,000,000 for post-release services, which will increase the number of children receiving such services, and expand the types of services available, to ensure children are placed in safe and appropriate environments and have access to the trauma-informed care they need.

INCREASING THE EFFICIENCY AND COST EFFECTIVENESS OF  
GOVERNMENT

The Committee provides funding for a variety of activities aimed at reducing fraud and waste, and improving the effectiveness of taxpayer dollars, including through investments supporting evidence-based policymaking. These program integrity initiatives have proven to be a wise Federal investment, resulting in billions of dollars of savings each year. In addition, the Committee recommendation provides direction to the Departments on opportunities to take action where Federal programs are fragmented or duplicative. The bill advocates that longstanding priority by reforming and transforming government in many small ways, and several initiatives to increase the efficiency and cost effectiveness of Government, including:

*Fighting Healthcare Fraud and Abuse.*—The Committee includes \$873,000,000 for the Health Care Fraud and Abuse Control program at CMS. Healthcare waste, fraud, and abuse costs our Nation as much as \$300,000,000,000 a year, according to certain estimates.

*Inspectors General.*—The Committee recommendation provides a total of \$387,123,000, an increase of \$29,776,000, for the Inspectors General funded in this act to conduct additional audits and investigations of possible waste and fraud in Government programs. The Committee appreciates the strong working relationships between the Inspectors General and the agencies they work with under this Committee’s jurisdiction. The Committee reiterates the strong expectation that Inspectors General have timely and independent access to all materials related to their responsibilities.

*Preventing Improper Social Security Payments.*—The Committee recommendation includes \$1,708,000,000 for the Social Security Administration to conduct continuing disability reviews and Supplemental Security Income [SSI] program redeterminations of non-medical eligibility, and other program integrity efforts.

*Taxpayer Accountability.*—Given the current fiscal environment, it is imperative for Government agencies to increase efficiencies, while fulfilling statutory requirements, to maximize the effectiveness of agency programs. Since 2011, GAO has published reports showing as many as 325 areas of potential duplication and overlap. GAO has identified over 1,000 actions to reduce, eliminate, or better manage fragmentation, overlap, or duplication; achieve costs savings; or enhance revenue. The Committee directs each agency funded in the fiscal year 2022 bill to report to the Committee, within 1 year of enactment, on all efforts made to address the duplication identified by the annual GAO reports along with identifying substantive challenges and legal barriers to implementing GAO's recommendations, as well as suggested legislative recommendations that could help the agency to further reduce duplication. The Committee looks forward to receiving the reports.

*Unemployment Insurance Trust Fund Integrity.*—The Committee provides \$250,000,000, an increase of \$50,000,000, for Reemployment Services and Eligibility Assessments [RESEA]. The RESEA program provides for intensive, in-person attention from specialists in the One-Stop career center system for individuals most likely to exhaust unemployment compensation benefits, those with particular barriers to reemployment, and others who have been difficult to place.

#### BILL-WIDE DIRECTIVES

*Congressional Budget Justifications.*—Congressional justifications [CJs] are the primary tool used for the Committee to evaluate budget requests, agency performance, and resource requirements. The Committee expects the fiscal year 2023 CJs to include sufficient detail to justify all programs, projects, and activities contained in each department, agency, board, corporation, or commission's budget request. The justifications shall include a sufficient level of detailed data, exhibits, and explanatory statements to support the appropriations requests, including tables that outline each agency's programs, projects, and activities for fiscal years 2022 and 2023. Specifically, every bill and report number included in either the House of Representatives or Senate Appropriations bill, report, or explanatory statement, or the final appropriations bill or explanatory statement of the fiscal year should be reflected within these justifications. If a program is recommended for elimination, the justification should include information about fiscal year 2022 activities.

The Committee directs the chief financial officer of each department, agency, board, corporation, or commission funded in this act's jurisdiction to ensure that adequate justification is given to support each increase, decrease, and staffing change proposed in the fiscal year 2023 budget. When requesting additional resources, reduced funding, or eliminations of programs, changes should be outlined with an adequate justification. Should the final fiscal year 2022 appropriations bill be enacted within a timeframe that does not allow it to be reflected within the congressional justifications for fiscal year 2023, the Committee directs each department, agency, board, corporation, or commission funded in this act to submit

within 30 days of enactment updated information to the Committee on funding comparisons to fiscal year 2022.

*Congressional Reports.*—Each Department and agency is directed to provide the Committee on Appropriations of the House of Representatives and the Senate, within 30 days of the date of enactment of this act and quarterly thereafter, a summary describing each requested report to the Committees on Appropriations along with a detailed status update that shall include, but is not limited to: the date the Department began drafting the report, the status of the draft, stage of clearance if applicable, and an estimated timeline for when the report will be submitted to the Committees.

#### OTHER HIGHLIGHTS OF THE BILL

*Administration on Community Living [ACL].*—The Committee includes \$285,599,200, an increase of \$570,177,000, to expand support for older Americans and Individuals with Disabilities. This includes \$576,000,000 for home delivered meals, an increase of \$299,658,000, and \$500,000,000 for Home and Community Based Services, an increase of approximately \$107,426,000. It will also include approximately \$14,220,000 for the Lifespan Respite program, an increase of \$7,110,000.

*Climate Change.*—As the effects of climate change become increasingly unavoidable, the Committee includes \$100,000,000 for the National Institute of Environmental Health Sciences to support research on its impact on human health. It also includes \$110,000,000, a \$100,000,000 increase for CDC’s climate and health program to identify potential health effects associated with climate change and implement health adaption plans.

*Corporation for National and Community Service.*—The Committee includes \$1,185,266,000, an increase of \$64,164,000, for national and community service programs

*Community Services Block Grant [CSBG].*—The Committee recommendation includes \$800,106,000 for CSBG programs, which is an increase of \$24,723,000.

*Corporation for Public Broadcasting.*—The bill includes the largest increase in nearly 40 years for the Corporation for Public Broadcasting. The Committee bill provides advance funding for fiscal year 2024 of \$565,000,000, an increase of \$90,000,000, and \$20,000,000 for fiscal year 2022 for the public broadcasting inter-connection system which will support investments in system-wide infrastructure and services that benefit the American people.

*Institute of Museum and Library Services [IMLS].*—The Committee recommendation includes \$282,000,000 for IMLS, an increase of \$25,000,000 above fiscal year 2021. This funding supports over 140,000 museums and public libraries, ensuring that all Americans have access to essential museum, library, and information services.

*Low Income Home Energy Assistance Program [LIHEAP].*—The Committee recommendation includes \$3,925,304,000, an increase of \$175,000,000 over the fiscal year 2021 enacted level.

*National Labor Relations Board [NLRB].*—The bill includes \$301,925,000 for the NLRB, an increase of \$27,701,000 over the fiscal year 2021 enacted level. The NLRB protects the rights of workers to self-organize and bargain collectively.

## NATIONAL INSTITUTES OF HEALTH

The Committee provides \$47,922,891,000, an increase of \$4,988,891,000, for the National Institutes of Health [NIH]. With this investment, the Committee will have provided a 58 percent increase over the past 7 years.

More than 80 percent of the NIH's funding is awarded for extramural research, mostly through almost 50,000 competitive grants to more than 300,000 researchers at more than 2,500 universities, medical schools, and research institutions in every State across the Nation. This investment has allowed NIH to continue its mission to support world-class research to increase the understanding of the fundamental nature of disease.

Within the total appropriation, the Committee provides \$496,000,000 in budget authority authorized in the 21st Century Cures Act (Public Law 114–255). The total also includes \$1,214,505,000 in transfers available under section 241 of the PHS Act (Public Law 78–410 as amended).

As in previous years, the Committee has targeted NIH funding to areas of promise of scientific advancement and urgency, while allowing NIH to maintain flexibility to pursue unplanned scientific opportunities and address unforeseen public health needs. The Committee maintains its commitment to finding a treatment and a cure for Alzheimer's disease, increasing funding by \$235,000,000 in the National Institute on Aging; increases support for the Helping to End Addiction Long-term or HEAL initiative by \$270,296,000 and other research related to opioids, pain, and pain management by \$345,359,000; provides \$330,000,000 for research to reduce health disparities; includes \$77,500,000 to expand research related to COVID–19; provides an increase of \$30,000,000 for research to improve pregnancy outcomes and reduce maternal mortality; and includes \$640,000,000, an increase of \$80,000,000, for the Brain Research through Advancing Innovative Neurotechnologies [BRAIN] Initiative. The Committee provides no less than \$550,000,000, an increase of \$25,000,000 to support NIAID research to combat antimicrobial resistance. The bill also includes an increase of \$100,000,000 to study the impacts of cli-

mate change on human health and \$2,400,000,000 to establish the Advanced Research Projects Agency for Health [ARPA-H], the President's bold and promising proposal to accelerate the pace of breakthroughs in medicine using the Defense Advanced Research Projects Agency as a model.

In addition, every Institute and Center receives an increase above fiscal year 2021 to continue investments in innovative research that will advance fundamental knowledge and speed the development of new therapies, diagnostics, and preventive measures to improve the health of all Americans. The Committee recognizes that many revolutionary discoveries often come from unexpected, untargeted research. The Committee continues to support these basic advances through the general increase to all Institutes and Centers.

#### NATIONAL CANCER INSTITUTE

Appropriations, 2021 .....	\$6,559,852,000
Budget estimate, 2022 .....	6,733,302,000
Committee recommendation .....	6,772,469,000

The Committee recommendation includes \$6,772,469,000 for the National Cancer Institute [NCI], including \$194,000,000 appropriated from the NIH Innovation Account. Of this amount, \$30,000,000 is available for repairs and improvements to the NCI facility in Frederick, Maryland.

*Cancer Data Sharing.*—The Committee applauds the NIH for creating the National COVID Collaborative—a commercial solution leveraged to create a centralized and secure database that researchers in public and private institutions alike can use to study COVID-19 and identify potential treatments as the pandemic continues to evolve. The Committee encourages NIH to continue pursuing similar approaches to other critical areas of research, including cancer, where data sharing continues to be a barrier to progress. The Committee commends NCI's data sharing efforts through the Cancer Moonshot, the Childhood Cancer Data Initiative, and other programs, and requests an update in the fiscal year 2023 CJ on NCI's continued progress toward adopting a centralized, secure, national platform to share cancer research data to drive new insights and speed research efforts across the country.

*Cancer Immunotherapy.*—The Committee recognizes that NCI-supported research exploring cancer immunology, cancer immunotherapy and cancer vaccines that started years before the emergence of COVID-19 contributed to the rapid development of COVID-19 treatments and vaccines. Applying lessons learned from COVID-19 therapeutic development to cancer immunotherapy clinical trials has the potential to greatly improve treatment options and outcomes for cancer patients. Therefore, the Committee encourages NCI to accelerate the translation of discoveries in cancer immunotherapy by means of the same innovations used to develop COVID-19 treatments and vaccines. This should include expediting consideration and support for potential high-impact cancer immunotherapy clinical trials, and for correlative science based on planned and ongoing clinical trials.

*Childhood Cancer Data Initiative.*—The Committee includes the full budget request for this fiscal year of \$50,000,000 for the Child-

hood Cancer Data Initiative, the same level as in fiscal year 2021, which will facilitate a connected data infrastructure and integrate multiple data sources to make data work better for patients, clinicians, and researchers.

*Childhood Cancer STAR Act.*—The Committee includes \$30,000,000, the same as the fiscal year 2021 enacted level, for continued implementation of the Childhood Cancer Survivorship, Treatment, Access, and Research [STAR] Act to expand existing biorepositories for childhood cancer patients enrolled in NCI-sponsored clinical trials to collect and maintain relevant clinical, biological, and demographic information on all children, adolescents, and young adults with cancer. The Committee has also included sufficient funding to carry out childhood cancer survivorship research and programs as authorized in the STAR Act, such as developing best practices for the treatment of late effects of childhood cancers, improving collaboration among providers so that doctors are better able to care for this population as they age, and creating innovative models of care for childhood cancer survivors. The STAR Act calls on NCI to ensure that all applicable study sections, committees, advisory groups, and panels at NCI include one or more qualified pediatric oncologists, as appropriate. Therefore, the Committee requests an update on the actions NCI has taken to ensure appropriate pediatric cancer expertise is included on all panels.

*Clinical Trials Reporting of Data.*—The Committee recognizes that children have often been historically underrepresented in clinical trials. However, children with cancer participate in clinical trials at a high rate, thanks in large part to NCI support for clinical trials through the Children’s Oncology Group, the Pediatric Early Phase Clinical Trials Network, the Pediatric Brain Tumor Consortium, and NCI’s Pediatric Oncology Branch at the NIH Clinical Center. The Committee encourages NCI to continue to make information available to the public regarding adult trials that allow enrollment of patients under age 18.

*Deadliest Cancers.*—The Recalcitrant Cancer Research Act [RCRA] of 2012 (Public Law 112–239) focuses on cancers with a five-year survival rate below 50 percent, which account for 44 percent of all U.S. cancer deaths. While advances in some cancers have made it possible to reduce the overall rate of cancer deaths over the last two decades, there has been limited progress reducing mortality for these diseases. For fiscal year 2020, Congress directed NCI to develop a scientific framework using the process outlined in the RCRA for gastric, esophageal, and gastroesophageal junction cancers. In this regard, the Committee notes that NCI has taken an important step by receiving approval for a Program in Origins of Gastroesophageal Cancers from the National Cancer Advisory Board and Board of Scientific Advisors. The Committee directs NIH to provide a status update and timeline for the scientific framework within 60 days of enactment of this Act. Alongside the research and advocacy communities, the Committee also expects to be kept informed of NCI’s efforts on pancreatic, lung, glioblastoma, esophageal and stomach cancers. The Committee urges NCI to consider a similar process for primary liver cancer, including cholangiocarcinoma. Given the toll all recalcitrant cancers exact on society and the lack of diagnostic and treatment resources cur-

rently available to help patients, the Committee also requests NCI to identify in the fiscal year 2023 CJ its research goals to advance progress for the deadliest cancers: brain, esophagus, liver, lung, ovary, pancreas, stomach and mesothelioma.

*Germline RUNX1 Mutations.*—The Committee commends NCI for supporting NHGRI in running a natural history study of patients with germline RUNX1 mutations and their families. These mutations frequently lead to blood cancers, especially acute myeloid leukemia; more research on how this occurs could ultimately lead to treatments that would prevent malignancy. Interest in this field has grown significantly in recent years, and the Committee encourages NCI to support intramural and extramural research in this field. Notable research opportunities include the role of inflammation and the immune system on cancer transformation, pharmacological approaches to regulating RUNX1 activity, gene editing strategies, national patient data collection, specimen storage and analysis to inform collaborative research.

*Glioblastoma [GBM].*—Glioblastomas are recalcitrant cancers with less than a 5 percent 5 year relative survival rate, and the average survival time from diagnosis has improved by only 6 months over the last 30 years. To date, there have only been five drugs and one medical device approved by the FDA for the treatment of GBM. With prior Congressional investment in NCI programs, Glioblastoma is now one of the most molecularly characterized cancers. This investment has resulted in a new and promising understanding of these tumors, including identified clinical strategies and agents, trial designs, and technologies in the imaging and pathology space. The Committee commends NCI for its establishment and initial implementation of the GBM Therapeutics Network [GTN]. The GTN's cross-cutting teams' capability of pre-clinical and early-phase clinical trials necessary to rapidly evaluate potential treatments, including but not limited to 97 drugs, biologics, radiation, and devices, is what is needed to continue to advance toward cures and improved quality of life. Given this initial progress, the Committee urges NCI to continue its implementation of the GTN so that this program is able to rapidly launch clinical trials that speed access to promising qualified treatments to patients consistent with NCI's Glioblastoma Working Group recommendations in 2019.

*Gynecologic Cancers.*—The Committee continues to be concerned about the growing racial, socioeconomic, and geographic disparities in gynecologic cancers. In contrast to most other common cancers in the United States, relative survival for women with newly diagnosed advanced cervical or endometrial cancer has not significantly improved since the 1970s. Furthermore, historical data demonstrates that Black and Latinx women with gynecologic cancers are not as likely to receive standard therapy and/or die more frequently. The current COVID-19 pandemic has only exacerbated the healthcare disparities that were already present in minority and underrepresented communities. For example, in early 2021 CDC published findings that cervix cancer screenings in California decreased by as much as 78 percent during the pandemic—and have not recovered. They specifically noted concern because “cervical cancer incidence and mortality rates are disproportionately

higher in Hispanic women and non-Hispanic Black women.” Therefore, the Committee encourages the NCI to continue to support programs, projects, clinical trials, research grants, and contract opportunities for investigators that focus on discoveries that will positively impact access to prevention, early detection, diagnosis, and treatment for gynecologic cancers and address these now well documented disparities. Accelerated progress in reducing gynecologic cancer mortality has been a need for some time. The Committee requests an update on NCI’s research program for gynecologic cancers in the fiscal year 2023 CJ, including specific grants and strategies where the intent is to overcome these racial disparities in gynecologic cancers outcomes, including the underrepresentation of minority women in gynecologic cancer clinical trials.

*Liver Cancer.*—The Committee notes that liver cancer is a devastating disease, with a 5-year survival rate of only 20 percent. The number of liver cancer cases in the U.S. has increased by over 250 percent since 2000 and continues to increase. Since early detection of cancer in general and liver cancer in particular is the most effective way to reduce cancer mortality, the Committee encourages NCI to consider research opportunities that might support future development of a liver cancer screening test using the blood and saliva samples from the widespread national COVID-19 testing. This extensive and growing inventory of saliva and blood samples offers a unique opportunity to develop a liver cancer screening test that can soon reach over 100 million citizens, a number that will grow as COVID-19 testing is expanded. The Committee applauds the establishment of liver Specialized Centers of Research Excellence and encourages NCI to continue to support programs, projects, R01s, U01s, contracts, and other mechanisms focusing on the discovery of new liver cancer therapeutics and precision medicine guided early cancer detection. The Committee also commends NCI for its support of the inter-institute effort to develop the NIH Strategic Plan for Trans-NIH Research to Cure Hepatitis B. This effort is particularly important in view of the well-established linkage between hepatitis B infection and primary liver cancer. Up to 60 percent of global liver cancer cases are caused by the hepatitis B virus.

*Metastatic Breast Cancer.*—The Committee is aware that clinical research is of utmost importance to those living with metastatic breast cancer [MBC], which is breast cancer that has spread to other organs and become incurable. An estimated 168,000 Americans live with MBC, and nearly all of the more than 43,000 deaths from breast cancer are attributed to this late stage of disease. Given the mortality associated with MBC and the lack of treatment options, research offers the best possibility of therapeutic advances and extended life for these patients. MBC is also associated with startling health disparities, since breast cancer mortality is about 40 percent higher for Black women in the U.S. than Caucasian women and breast cancer is the second most common cause of death by cancer for Black women. The Committee believes that a continued emphasis by NCI on research for MBC, especially in communities of color, is needed to discover better treatments and a cure for MBC and to address health disparities in this population. The Committee requests an update on NCI’s activities regarding MBC in the fiscal year 2023 CJ, including progress made

with respect to inclusion of people of color in NCI-funded clinical trials in this area.

*NCI Paylines.*—The Committee remains determined to raise the low success rate for NCI grant applicants. To support more awards and improve success rates, it provides an increase of \$40,000,000 to prioritize competing grants and sustain commitments to continuing grants.

*Pancreatic Cancer.*—Pancreatic cancer is the third leading cause of cancer-related death in the United States. In 2021, over 60,000 Americans will be diagnosed with pancreatic cancer; more Americans than ever before. The five-year survival rate for pancreatic cancer is just over ten percent. The Committee appreciates NCI's submissions of the five-year updates to the reports required by the Recalcitrant Cancer Research Act of 2012 and the six-year update on the effectiveness of the framework, including an update on improvements in pancreatic cancer prevention, detection, diagnosis and treatment. While progress has been made, the Committee encourages NCI to continue to support research efforts to advance discoveries and improve treatment options for patients diagnosed with pancreatic cancer.

*Reducing Native American Cancer Disparities.*—The Committee urges NCI to continue to support and expand research efforts focused on reducing cancer disparities among Native American populations. The Native American population experiences overall cancer incidence and mortality rates which are much higher than non-Native populations. The Committee commends NCI's participation in the trans-NIH Intervention Research to Improve Native American Health initiative and its support for the American Indian Colorectal Cancer Screening Consortium through the Cancer Moonshot and encourages NCI to continue to support efforts to develop durable capacity for tribally engaged cancer disparities research through an integration of research, education, outreach, and clinical access.

*Surveillance, Epidemiology, and End Results [SEER] Registry.*—The Committee encourages NCI to continue to advance efforts to modernize the SEER Registry and better capture key data points, such as metastatic recurrence and cancer migration. The Committee requests an update in the fiscal year 2023 CJ on these efforts and the recent expansion of the SEER program.

*Telehealth-based Services for Vulnerable Patients.*—The Committee recognizes that COVID-19 has significantly exacerbated the physical, emotional, and mental toll on cancer patients and families, and providing clinical and psychosocial services to address these challenges is an essential component of comprehensive cancer care. Cancer centers across the United States pivoted to providing support and services via telehealth, yet the extent to which all patients and families had equitable access to these services is unknown. The Committee urges NCI to continue to support research on the delivery and evaluation of telehealth-based clinical and psychosocial services, particularly among vulnerable patients and disadvantaged communities.

## NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Appropriations, 2021 .....	\$3,664,811,000
Budget estimate, 2022 .....	3,845,681,000
Committee recommendation .....	3,841,998,000

The Committee recommendation includes \$3,841,998,000 for the National Heart, Lung, and Blood Institute [NHLBI].

*Alzheimer's Disease and Vascular Dementia.*—Well-characterized, longitudinal, population-based cohort studies provide value in bringing to light more information about the risk factors related to dementia. By studying participants over time, much can be learned about cognitive decline and early biomarkers; however, mature cohorts naturally dwindle as participants pass away, requiring that the research mission be adjusted to continue to leverage the previous science and build upon it. Therefore, the Committee urges NHLBI to fund research into next generation cohorts, with a focus on understanding the development and progression of risk factors and detection of early signs of cognitive decline. Funded cohorts should be racially and ethnically diverse with broad geographic representation.

*Cardiovascular Disease Research.*—The Committee remains concerned about the prevalence of cardiovascular disease among Americans and supports research into cutting-edge cardiovascular research and drug discovery. This research should focus across disciplines of medicine, immunology, imaging, chemistry, biomedical engineering, physics, statistics, mathematics, and entrepreneurship to design new therapies and therapy delivery systems and strategies that are safer, more effective, and improve patient compliance.

*Chronic Obstructive Pulmonary Disease [COPD].*—COPD is the fourth leading cause of death in the U.S. The Committee recognizes NHLBI for its role in developing and implementing the COPD National Action Plan requested by Congress. The Committee encourages NHLBI to accelerate implementation of the action plan's goals to expand research into the diagnosis, treatment, management, and prevention of COPD.

*Community Engagement Alliance Against COVID-19 Disparities [CEAL] Initiative.*—The Committee includes \$30,000,000 for the new CEAL initiative, consistent with the fiscal year 2022 budget request. CEAL will connect researchers with community organizations to conduct research and increase participation of people from underrepresented communities in clinical trials for COVID-19 treatments and vaccines.

*Congenital Heart Disease [CHD].*—The Committee commends NHLBI for its continued work to better understand causation, improve treatments and outcomes, support the growth of the clinical workforce, and integrate registry data and research datasets to facilitate research on congenital heart disease across the lifespan, including through the Pediatric Health Network and the Pediatric Cardiac Genomics Consortium. The Committee encourages NHLBI to prioritize CHD activities outlined in its strategic plan, including improving understanding of outcomes and co-morbidities, modifying treatment options across the lifespan, and accelerating discovery, analysis, and translation by leveraging CHD registries and networks. The Committee requests NHLBI include an update in its

fiscal year 2023 CJ on steps being taken to close these research gaps.

*COVID-19 Long Haulers.*—The Committee notes with concern that an estimated 10 percent of individuals who have recovered from COVID-19 are experiencing “long haul” health conditions, including serious respiratory diseases such as acute respiratory distress syndrome and pulmonary fibrosis. The Committee urges NHLBI to prioritize research into the understanding, treatment, and prevention of “long haul” post-COVID respiratory conditions, particularly among minority populations disproportionately impacted by COVID-19.

*Duchenne Muscular Dystrophy.*—In light of improvements in care leading to patients living into their third decade, the leading cause of death in Duchenne Muscular Dystrophy patients is heart failure. The Committee urges NHLBI to support research that characterizes cardiomyopathy in Duchenne and Becker Muscular Dystrophy. There is a gap in the ability to develop novel cardiac therapeutics for Duchenne Muscular Dystrophy due to a lack of accepted cardiac outcome measures. The Committee encourages NHLBI to continue its work towards establishing viable cardiac outcome measures for the development of therapeutic agents to combat cardiomyopathy, and to report on its progress in the fiscal year 2023 CJ.

*Health Disparities Research.*—The Committee includes an increase of \$50,000,000 as requested for NHLBI to support research related to identifying and reducing health disparities.

*Hemophilia.*—The NHLBI State of the Science Workshop: Factor VIII Inhibitors: Generating a National Blueprint for Future Research held in May 2018 provided a forum to discuss the need for further research into the prevention and eradication of inhibitors in individuals with Hemophilia. The Committee encourages NHLBI to pursue the recommended research agenda from the workshop, such as longitudinal studies to determine the factors that influence inhibitor development.

*Hypertension Prevention Research.*—The Committee recommends that the NIH prioritize research funding on the impacts of exercise and aspirin on hypertension.

*National Center on Sleep Disorders Research [NCSDR].*—The Committee notes the appointment of a new NCSDR Director as well as the release of a long overdue strategic plan. The Committee requests the Center provide an update in the fiscal year 2023 CJ on plans and stakeholder collaboration efforts, to effectively advance the Center’s mission. This update may include information on the Center’s work to promote cross-agency collaboration, participate in emerging efforts (such as addressing health disparities), and lead a variety of impactful research projects.

*Pulmonary Fibrosis [PF].*—The Committee commends NHLBI for continuing to fund the PRECISIONS study, which is testing a potential new treatment for a subset of pulmonary fibrosis patients with a particular gene variant. Given the grim prognosis for most patients with PF, which encompasses more than 200 different lung diseases that have a variety of causes, the Committee urges the Institute to expand its support for other areas of PF research, particularly on common fibrosis pathways, as well as patient-centered clinical research. Identifying additional disease mechanisms should

allow for enhanced patient-centered care for all of those affected by pulmonary fibrosis.

*Pulmonary Hypertension.*—The Committee notes continued investment in advancing the understanding of pulmonary hypertension through the Pulmonary Vascular Disease Phenomics Program. The Committee also notes the concern that individuals who recover from COVID–19 may develop long-term lung disease, including pulmonary hypertension. The Committee encourages NHLBI to continue supporting critical research into this devastating condition and work with stakeholders to advance key priorities such as better understanding disease progression in pulmonary hypertension; better understanding the relationship between COVID–19 and pulmonary hypertension; and improving patient care management and clinical outcomes.

*Vascular Dementia.*—A growing number of Americans are developing severe forms of vascular dementia, a condition resulting from many years of living with chronic diseases such as hypertension and cardiovascular disease. This prevalence is especially high in areas with high rates of hypertension obesity and lack of access to regular healthcare. Epidemiological studies and human pathology studies have demonstrated association of vascular risk factors, vascular diseases and pathology with dementia. Research in animal models could further investigate causal relationship, understand mechanisms, and test novel interventions (including repurposing existing drugs). Study of the mechanisms of vascular dementia can help researchers to understand causation, develop new treatment therapies and study how to repurpose existing drugs to delay or halt disease progression. As such, the Committee encourages NHLBI to continue its support for investigating the potential relationship between vascular disease and risk factors for vascular dementia, leveraging the work of well-established longitudinal cohort studies of dementia and cardiovascular disease and experimental models well characterized phenotypes and mechanisms. NHLBI should coordinate this research with NIA and NINDS to ensure that the continuum of research from basic science to observational cohort to clinical trial to implementation is maintained.

*Valvular Heart Disease.*—The Committee recognizes that heart valve disease involves damage to one or more of the heart’s valves, and symptoms can be difficult to detect and lead to major complications. The Committee encourages NHLBI to expand research on valvular disease to better understand and develop guidelines for treatment of high-risk patients by using precision medicine and advanced technological imaging to generate data, identifying individuals with valvular heart disease and available data, and corroborating data generated through clinical trials to develop a prediction model to identify patients at high risk for sudden cardiac arrest or sudden cardiac death from valvular disease.

NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH

Appropriations, 2021 .....	\$484,867,000
Budget estimate, 2022 .....	516,197,000
Committee recommendation .....	515,720,000

The Committee recommendation includes \$515,720,000 for the National Institute of Dental and Craniofacial Research [NIDCR].

*National Dental Practice-Based Research Network [NDPBRN].*—The Committee recommends that the NIDCR continues funding support of National Dental Practice-Based Research Networks.

*Opioids and Pain Management.*—The Committee provides an increase of \$18,000,000 for NIDCR to support research related to opioids, pain and pain management, as proposed in the fiscal year 2022 budget.

NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

Appropriations, 2021 .....	\$2,131,975,000
Budget estimate, 2022 .....	2,219,298,000
Committee recommendation .....	2,217,136,000

The Committee recommendation includes \$2,217,136,000 for the National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK].

*Chronic Kidney Disease [CKD].*—Chronic kidney disease affects over 37.0 million adults in the United States, and approximately 25 percent of Medicare’s annual budget is spent on this disease. An additional 80.0 million Americans are at risk of developing CKD due to diabetes, cardiovascular disease, or family history. Chronic kidney disease not only increases risk for kidney failure but also exacerbates care for multiple diseases because most drugs are excreted and/or metabolized by the kidney. Kidney disease also heightens morbidity and mortality with acute infections such as SARS–COV–2 and with chronic diseases such as cancer and cardiovascular diseases. The Committee encourages NIDDK to consider research areas including identifying novel targets to develop therapeutic modalities to prevent kidney disease and its progression; conducting clinical trials and implementation studies to determine and administer optimal treatment regimens to reduce risk of kidney disease progression and associated health problems; and reducing racial/ethnic and socioeconomic disparities. The Committee also encourages greater collaboration between NIDDK and other Institutes studying related comorbidities and conditions, such as hypertension, cardiovascular disease, immunology, disparities, and genomics.

*End Stage Renal Disease.*—The Committee continues to note the important work in supporting critical kidney research that NIDDK has accomplished on end-stage renal disease. The Committee encourages NIDDK to work with stakeholders to facilitate new opportunities for research in related conditions.

*Glomerular Diseases.*—The Committee continues to support the important work that the Cure Glomeruloneuropathy initiative has accomplished that has led to breakthroughs for critical clinical trials. The Committee encourages NIDDK to continue supporting research on related conditions such as Minimal change disease.

*Impact of Health Disparities on Gastrointestinal Diseases.*—The Committee encourages the NIH to study the causes of racial and ethnic health disparities in digestive diseases and the impact of these disparities on the incidence and clinical outcomes of digestive diseases in minority communities to better ascertain the impact of these diseases within these communities.

*Inflammatory Bowel Disease [IBD].*—The Committee encourages NIDDK to continue pursuing bedside-to-bench research in IBD with a focus on biological and clinical drivers of patient remission and relapse in Crohn’s disease and ulcerative colitis, including mucosal healing as well as environmental triggers such as nutrition and psychological stress. The Committee recognizes the importance of having common data elements [CDE], standardizing the clinical categorization of IBD patients, to facilitate the sharing, validation, and comparison of results across research studies, and commends the work many Institutes and Centers have done to support development of CDEs for a number of diseases and disorders. To effectively support bedside-to-bench research in IBD, the Committee encourages the Institute to support the development of CDEs and to collaborate with other IBD researchers and organizations.

*Opioids and Pain Management.*—The Committee provides an increase of \$20,000,000 for NIDDK to support research related to opioids, pain and pain management, as proposed in the fiscal year 2022 budget.

*Pediatric Nephrology Research Awards.*—The Committee recognizes the importance of research funded by NIDDK to advance innovations in kidney care, including research on pediatric kidney disease. The Committee remains concerned about the lack of pediatric nephrology clinical trials and the small pediatric nephrology biomedical research workforce. The Committee requests an update in the fiscal year 2023 CJ detailing its efforts to encourage pediatric nephrology research.

*Pediatric Nephrology Workforce Diversification.*—The Committee recognizes that the COVID–19 pandemic caused unprecedented disruption in biomedical research, delaying awards and dissuading applications for pediatric nephrology research. The Committee is concerned that these disruptions have disproportionately impacted researchers from traditionally underrepresented groups, resulting in even fewer researchers from communities of color. Pediatric nephrology studies continue to suffer from low enrollment, due in part to the disproportionate impact of kidney disease on children of color and longstanding challenges of clinical trial recruitment within those communities. Because children and families of color are more likely to enroll in studies where the research team is from the same community, the diversity of pediatric nephrology biomedical workforce is paramount to the success of this research. The Committee requests that NIDDK consult with stakeholder groups to identify barriers to increasing the diversity of the pediatric nephrology workforce and identify ways to incentivize researchers from traditionally underrepresented groups to enter this field. The Committee requests that NIDDK include information in the fiscal year 2023 CJ on the progress made to bolster the diversity of the pediatric nephrology biomedical research workforce.

*Type 1 Diabetes.*—The Committee commends the efforts of NIDDK to prioritize the discovery and validation of biomarkers and urges NIDDK to continue to prioritize this important work that will accelerate the designing and conducting of clinical trials to prevent, treat, and cure type 1 diabetes. Given the growing prevalence of diabetes, the Committee is concerned that additional research is

needed to determine how to improve the treatment of a common complication, diabetic foot ulcers to reduce amputations, and urges NIDDK to support such efforts. Further, given the aging population, the Committee urges NIDDK to work with NIA to explore the relationship between diabetes and neurocognitive conditions, such as dementia and Alzheimer’s disease.

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE

Appropriations, 2021 .....	\$2,513,393,000
Budget estimate, 2022 .....	2,783,300,000
Committee recommendation .....	2,786,096,000

The Committee recommendation includes \$2,786,096,000 for the National Institute of Neurological Disorders and Stroke [NINDS], including \$76,000,000 appropriated from the NIH Innovation Account.

*Duchenne Muscular Dystrophy.*—While the expression of the dystrophin protein in the brain is recognized, our understanding of the link between the absence of dystrophin and related neurobehavioral/cognitive diagnosis is not well understood. The Committee urges NINDS to support research to characterize the role of dystrophin in the brain and to further define the relationships between mutation and neurobehavioral and cognitive diagnosis.

*Frontotemporal Degeneration [FTD] Research.*—The Committee encourages NIH to maintain and expand a multi-site infrastructure and network of clinical sites to extend the study of genetic and sporadic FTD cohorts. By supporting this research, researchers may increase our knowledge of the natural history of the disease and build an infrastructure for biomarker discovery and clinical trials in defined FTD cohorts. A key component of this will be to leverage recent advances in information technology to create an infrastructure for FTD research that will collect and record data and samples in a uniform manner, incorporate patient-reported data, and take advantage of new technologies that enable remote monitoring. Development of a data biosphere that supports broad sharing of robust datasets, generated with powerful omic platforms, will enable the broader community of researchers, including younger investigators and scientists from a wide array of fields, to bring their expertise and intellectual curiosity to bear on the challenges currently confronting the Alzheimer’s disease and related dementias disorders. In this way, the conferees hope to accelerate the understanding of basic disease mechanisms that may be common across forms of dementia and speed the translation of this information into much-needed therapeutics.

*Pain and Addiction Collaborative Research.*—The Committee recommends that NIH encourage collaborative research awards through NINDS and the NIDA for pain and addiction treatment and research.

*Opioids, Stimulants and Pain Management.*—The Committee continues to be concerned about the opioid and stimulant overdose epidemic and has provided \$405,443,000 for the Institute’s share of the HEAL Initiative, \$135,148,000 above the fiscal year 2021 enacted level and the same as the fiscal year 2022 budget request. HEAL is an aggressive, trans-agency effort to speed scientific solu-

tions to stem the national opioid public health crisis. The Committee has also provided an increase of \$43,000,000 for NINDS to support research related to opioids, pain and pain management, as proposed in the fiscal year 2022 budget.

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Appropriations, 2021 .....	\$6,069,619,000
Budget estimate, 2022 .....	6,245,926,000
Committee recommendation .....	6,342,756,000

The Committee recommendation includes \$6,342,756,000 for the National Institute of Allergy and Infectious Diseases [NIAID].

*Antiviral Drug Discovery Initiatives.*—The Committee supports NIAID’s ongoing efforts to establish public-private partnerships focused on global pandemic preparedness and antiviral drug discovery, leveraging the best of academia and industry to develop and deliver broad-spectrum antiviral drugs, address rapidly emerging public health threats, be better prepared before the next virus creates another global catastrophe, and encourage close collaboration with BARDA.

*Celiac Disease.*—The Committee includes sufficient funding for NIH to devote focused research on the study of celiac disease, including the autoimmune causation underpinning the affliction. Today, the only known treatment for this disease is a gluten-free diet; however, recent public and private sector research confirms that such a “treatment” is insufficient for many who suffer from celiac disease. Therefore, the Committee urges NIAID to support new research on celiac disease, to better coordinate existing research and focus new research efforts toward causation, and ultimately, a cure of this disease. Funding is included to establish a Research Condition, Disease Categorization [RCDC] for celiac disease and a Notice of Special Interest to spur additional research.

*Centers for AIDS Research.*—The Committee includes \$71,000,000, an increase of \$10,000,000 over the fiscal year 2021 enacted level and consistent with the fiscal year 2022 budget request, for the Centers for AIDS Research. The Centers provide evidence-based practices on prevention and treatment to its partners under the Ending the HIV Epidemic initiative.

*Food Allergies.*—The Committee recognizes the serious issue of food allergies which affect approximately 8 percent of children and 10 percent of adults in the U.S. The Committee commends the ongoing work of NIAID in supporting a total of 17 clinical sites for this critical research, including seven sites as part of the Consortium of Food Allergy Research.

*Gonorrhea.*—The Committee is concerned with recent reports from the World Health Organization that a mutant, more powerful strain of gonorrhea is spreading worldwide and, due to the COVID-19 shutdown, people have gone undiagnosed and untreated, leading to the further spread of this disease. The Committee commends NIAID for its efforts in developing new antibiotics to combat the bacterium that causes this disease and encourages NIAID to accelerate work to find new diagnostic tools and treatments for this super strain of the disease.

*Herpes Simplex Virus.*—The Committee is concerned with the correlation between Herpes Simplex Virus and cognitive decline,

including a growing body of research indicating HSV as a contributing factor to Alzheimer's disease, Encephalitis, and Bell's Palsy, among other neurodegenerative diseases. The Committee encourages NIAID to prioritize research and development of curative approaches to Herpes Simplex Virus.

*Lyme Disease and Related Tick-Borne Illnesses.*—The Committee includes a \$20,000,000 increase for Lyme Disease and other tick-borne illnesses research. The Committee encourages NIAID to use these funds to prioritize the support of meritorious research that informs a better understanding of Lyme disease pathogenesis and encourages the development of improved diagnostics and vaccines. The Committee directs NIH to leverage this understanding to develop new tools that can more effectively prevent, diagnose, and treat Lyme disease, including long-term effects, and other tick-borne diseases. The Committee encourages the promotion and development of potential vaccine candidates for Lyme disease and other tick-borne diseases. The Committee directs NIH to conduct research to better understand modes of transmission for Lyme and other tick-borne diseases, including vertical transmission. The Committee urges NIH to incentivize new investigators to enter the field of Lyme disease and other tick-borne disease research. The Committee directs NIH to coordinate with CDC on publishing reports that assess diagnostic advancements, methods for prevention, the state of treatment, and links between tick-borne disease and psychiatric illnesses.

*Regional Biocontainment Laboratories [RBLs].*—The Committee directs \$50,000,000 to be evenly divided among the 12 RBLs to support efforts to prevent, prepare for, and respond to infectious disease outbreaks, including, but not limited to: (1) conducting research on developing testing for antiviral compounds, new vaccines, and point of care tests; (2) conducting research on validating methods for identifying suitable convalescent plasma for screening donors and other prophylactic methods to prevent infections; (3) supporting operations costs and facilities upgrades for purchase of equipment to speed drug discovery and testing; and (4) training new researchers in biosafety level 3 practices.

*Responding to Infectious Diseases.*—The Committee supports NIAID's efforts to continue responding to the COVID-19 pandemic and prepare for future outbreaks while carrying out its broader role in infectious diseases research, including research on antimicrobial resistance. To that end, the Committee provides no less than \$550,000,000, an increase of \$25,000,000, to support NIAID research to combat antimicrobial resistance. In particular, the Committee recommends NIAID devote the additional funding to expand research on mechanisms of resistance, therapeutics, vaccines and diagnostics; support the development of a clinical trials network to reduce barriers to research on difficult-to-treat infections; and support the training of new investigators to improve AMR research capacity as outlined in the 2020–2025 National Action Plan to Combat Antibiotic-Resistant Bacteria. As part of the latter effort to expand and diversify the infectious diseases research workforce, the Committee recommends NIAID expand the number of K, T, and F awards, and Early Investigator Awards. The Committee directs the Office of the Assistant Secretary for Health, NIH, ASPR/

BARDA, CDC and AHRQ to jointly brief the Committees on Appropriations of the House of Representatives and Senate no later than 30 days after the enactment of this Act detailing how HHS and its agencies are coordinating their AMR-related efforts. The briefing should include a comparison of actual performance against the national targets for 2020 established in the March 2015 National Action Plan for Combatting Antibiotic-Resistant Bacteria and whether those goals were sustained in 2021. Agencies are directed to outline the focus of their plans for fiscal years 2022–2023 and how these are connected to longer-term objectives included in the follow-on National Action Plan released in October 2020. In addition, NIAID should detail the focus of its initiatives to strengthen and diversify the ID/HIV research workforce for fiscal years 2022–2023.

*SARS-CoV2-Immunity: Understanding Diversity and Addressing Disparity.*—The COVID–19 pandemic revealed significant health disparities in the nation’s minority and underserved populations including indigenous Americans, African Americans, Pacific Islanders and Hispanics/Latino Americans. Research suggests that for every 100 deaths of white Americans there are approximately 500+ deaths in these populations. Unfortunately, these individuals are profoundly understudied using contemporary biomedical technologies evolving in today’s research community. Additionally, the role of significant underlying medical conditions in this context is just being appreciated and warrants a significant and focused initiative to address gaps that are clearly contributing to morbidity and mortality. Therefore, the Committee recommendation includes \$7,500,000 to NIAID to engage with not-for-profit research institutes and/or academic institutions to undertake a series of deep immune profiling studies of individuals who acquired the SARS–CoV–2 virus in these underserved and understudied population communities with the intent of demonstrating a proven pipeline to ascertain immune dysfunction and outcomes applicable to any human condition or population. As the immune system is emerging as a key predictor of either good or bad outcomes in the pandemic, extending a scalable model for immune system profiling to local underserved populations across the nation is vital to detect and prevent a downward spiral of vulnerable patients in this pandemic and future pandemics.

*Syphilis.*—The Committee is aware that the rise in congenital syphilis parallels the increase in syphilis among women of child-bearing age. The Committee commends the NIAID for their work in developing new diagnostic tests for both adults and newborns and encourages acceleration of vaccine development and new treatment options.

*Universal Flu Vaccine.*—The Committee includes \$260,000,000, an increase of \$40,000,000 over the fiscal year 2021 enacted level, to support efforts to develop a universal influenza vaccine that provides long-lasting protection against numerous flu strains, rather than a select few. Such a vaccine would eliminate the need to update and administer the seasonal flu vaccine each year and could provide protection against newly emerging flu strains, potentially including those that could cause a flu pandemic. The Committee requests an update on these efforts within 60 days of enactment of this Act.

*Vaccine Development.*—The Committee recognizes the importance of being able to quickly, efficiently, and safely develop and manufacture vaccines against emerging infectious diseases. Vaccines play a pivotal role in host protection against infectious diseases and have significantly reduced mortality worldwide. Older methods of developing vaccines are no match for a host of emerging and re-emerging pathogens that call for a tailored and speedy response, such as the developing coronavirus variants. Today, innovations in how vaccines are developed enable faster production of platforms capable of making and initially testing a new vaccine in less than 120 days that then are tailored to specific pathogens as manufacturing begins, based on science and data, not speculation. Such rapid vaccine platform technologies can vastly decrease the time it takes to develop, manufacture, and distribute vaccines. The Committee encourages NIAID to support research and development of rapid vaccine platform technologies. The Committee directs NIAID to brief the Committee within 180 days of enactment on progress.

NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES

Appropriations, 2021 .....	\$2,991,417,000
Budget estimate, 2022 .....	3,096,103,000
Committee recommendation .....	3,067,557,000

The Committee recommendation includes \$3,067,557,000 for the National Institute of General Medical Sciences [NIGMS], which includes \$1,214,505,000 in transfers available under section 241 of the PHS Act (Public Law 104–73 as amended).

*Institutional Development Award [IDeA].*—The Committee provides \$410,453,000 for IDeA, \$13,880,000 above the fiscal year 2021 enacted level. The Committee opposes any efforts to change eligibility for the IDeA program to a system that would be based on States’ populations. The Committee recognizes that eligibility for the IDeA program was frozen because the success rate criteria in the original authorizing legislation no longer reflected the States in most need and would have allowed most States in the country to become IDeA states. Instead, as noted in previous report language, the Committee endorses NIH’s proposal for a new eligibility system that would use the median NIH funding level for States as a cutoff. Currently eligible States, all of which would remain IDeA States using this proposed system, have historically had low funding levels from NIH and rely on the IDeA program to help build a research infrastructure and enhance research capacity at institutions in those States.

*Minority Serving Institutions.*—Congress recognizes the importance of highly trained physician-scientists to serve diverse communities, decrease health disparities, and enhance the biomedical research workforce. The Committee encourages NIGMS to support medical scientist training at Minority Serving Institutions as defined in law under Title III of the Higher Education Act. Such efforts should support dual degree programs that train students in medicine and biomedical research.

EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Appropriations, 2021 .....	\$1,590,337,000
Budget estimate, 2022 .....	1,942,117,000
Committee recommendation .....	1,678,970,000

The Committee recommendation includes \$1,678,970,000 for the Eunice Kennedy Shriver National Institute of Child Health and Human Development [NICHD].

*Behavioral Health in Young Children.*—The Committee commends the important role that the NICHD has historically served to support research in the areas of behavioral health, cognition, development of young children, language, learning differences, and school readiness. The COVID–19 pandemic has only increased the importance of research in these areas, such as the long-term consequences of social isolation or emotional development after a year of inconsistent in-person school attendance. Accordingly, the Committee encourages NICHD to prioritize ongoing investment in these areas.

*Children with COVID–19.*—The Committee includes an increase of \$15,000,000, as requested in the fiscal year 2022 budget request, for NICHD to support further research into multisystem inflammatory syndrome in children and other ways in which COVID–19 affects children.

*Congenital Syphilis.*—The Committee continues to be concerned with the increased rates of congenital syphilis and rising death rates and life-long disabilities as a consequence of no preventive treatment. The Committee encourages NICHD to coordinate efforts with NIAID on new testing, diagnosis, and treatment efforts.

*Endometriosis.*—The Committee is aware that endometriosis is a chronic disease originating in the female reproductive system affecting 10 percent of women of reproductive age worldwide. Endometriosis is often misdiagnosed as irritable bowel disease. Endometriosis has been linked to ovarian cancer. The Committee also recognizes that endometriosis is a leading cause of female infertility in the United States. The Committee encourages NIH to support more research to increase early and more accurate diagnostic rates and for education to inform healthcare providers and their patients regarding diagnosis and treatment of endometriosis.

*Impact of Technology and Digital Media on Children and Teens.*—The Committee remains concerned about the effects of technology use and media consumption on infants, children, and adolescents and appreciates NIH’s continued engagement on these important topics. The Committee encourages NIH to prioritize research into the cognitive, physical, and socio-emotional repercussions of young people’s use of technologies including mobile devices, computers, and virtual reality tools as well as their consumption of social-media content, video games, and television programming.

*Learning Disabilities Research.*—The Committee is increasingly concerned with the decline in achievement for students with disabilities and recognizes the need for continued research and improved interventions, particularly in light of the COVID–19 crisis which has led to significant loss of in-person instruction for many students. The Committee recognizes the importance of NICHD’s

funding of Learning Disabilities Research Centers and Learning Disabilities Innovation Hubs, which are the only source of Federal funding available to researchers interested in exploring child development and learning disabilities to conduct randomized control trials and explore the relationships between different variables at work. While learning disabilities do have an effect on an individual's education and academic achievement, these disorders are brain-based so clinical research using the latest technology and advances in neuroscience is essential. Therefore, to continue robust research into language, reading development, learning disabilities, and disorders that adversely affect the development of listening, speaking, reading, writing, and mathematics abilities, the Committee encourages NICHD to continue its investment in its Learning Disabilities Research Centers and Learning Disabilities Innovation Hubs.

*Maternal Health Research.*—The Committee includes an increase of \$30,000,000 for the Implementing a Maternal Health and Pregnancy Outcomes Vision for Everyone [IMPROVE] initiative, as requested in the fiscal year 2022 budget request. The Committee remains deeply troubled by the U.S. maternal mortality rate, which is far higher than other industrialized countries and remains much greater for minority and rural women. The IMPROVE initiative supports research to reduce preventable causes of maternal death and improve the health of pregnant and postpartum women.

*Maternal Infections.*—The Committee requests an update on research to better understand and prevent congenital cytomegalovirus in the fiscal year 2023 CJ.

*Physical Activity Promotion and Obesity Prevention for Preschool Children.*—The Committee encourages NIH to support research to identify sustainable physical activity interventions for preschool children.

*Population Research.*—The Committee applauds NICHD for supporting many of the Nation's most used prospective, population-representative longitudinal studies, including Fragile Families and Child Wellbeing Study, Panel Study of Income Dynamics Child Supplement Survey, and National Longitudinal Survey of Youth, and also for supporting research and research training through the NICHD Population Dynamics Centers Research Infrastructure Program. Given the dearth of data being collected regarding the short and long-term social, economic, developmental, and health effects of the COVID-19 pandemic on children and families, the Committee encourages NICHD to consider expanding data collection and research through these existing surveys and the Centers Program. Further, the Committee encourages the Institute to explore the use of existing and new mechanisms to enhance research regarding the effect of COVID-19 on fertility trends and reproductive health overall. Finally, the Committee urges NICHD to expand data collection and research regarding maternal, infant, child, and adolescent mortality.

*Pregnant and Lactating Individuals.*—The Committee includes up to \$1,500,000 for NICHD to contract with the National Academies of Sciences, Engineering, and Medicine [NASEM] to convene a panel with specific legal, ethical, regulatory, and policy expertise to develop a framework for addressing medicolegal and liability

issues when planning or conducting research specific to pregnant people and lactating people. Specifically, this panel should include individuals with ethical and legal expertise in clinical trials and research; regulatory expertise; plaintiffs' attorneys; pharmaceutical representatives with tort liability and research expertise; insurance industry representatives; federally funded researchers who work with pregnant and lactating women; representatives of institutional review boards; and health policy experts.

*Uterine Fibroids.*—Nationally, an estimated 26.0 million individuals ages 15 to 50 have diagnosed uterine fibroids. Uterine fibroids are the most common gynecological condition, but individuals are frequently unaware that the symptoms of this condition—including heavy menstrual bleeding, pain, and frequent urination during periods—are abnormal. Fibroids contribute to significant negative health outcomes including chronic pain, iron deficiency and anemia, miscarriage, and/or infertility. The Committee strongly urges NICHD to prioritize funding to expand basic, clinical, and translational research into the mechanics of fibroids, identification of early diagnostic methods, and fertility-preserving treatments. Research focusing on understanding the significant health disparities among individuals with fibroids should also be prioritized, given that Black women are at increased risk for fibroids, tend to develop symptoms at a younger age, and suffer more severe symptoms.

#### NATIONAL EYE INSTITUTE

Appropriations, 2021 .....	\$835,714,000
Budget estimate, 2022 .....	858,535,000
Committee recommendation .....	857,868,000

The Committee recommendation includes \$857,868,000 for the National Eye Institute [NEI].

#### NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

Appropriations, 2021 .....	\$814,675,000
Budget estimate, 2022 .....	937,107,000
Committee recommendation .....	936,271,000

The Committee recommendation includes \$936,271,000 for the National Institute of Environmental Health Sciences [NIEHS].

*Climate Change Research.*—The Committee provides an increase of \$100,000,000, consistent with the fiscal year 2022 budget request, for NIEHS to support research on the impact of climate change on human health.

*Parkinson's Disease [PD].*—Research suggests that PD is caused by a combination of genetic and environmental factors. Agricultural exposure to pesticides, including herbicides, has been associated with an increased risk of developing the disease, yet other exposures common to soldiers, firefighters, first responders and others, such as burn pits, insecticides, solvents and heavy metals, need to be explored or should be considered. The Committee urges NIEHS to expand its research and collaborate with appropriate partners to understand effects of these chemicals on PD development and progression. Research should include fundamental approaches to identify other environmental triggers and to understand the expression of PD traits that result from the interplay of genes and environ-

ment to advance the development of individualized precision environmental health strategies to prevent and treat PD. The Committee requests an update on these activities in the fiscal year 2023 CJ.

NATIONAL INSTITUTE ON AGING

Appropriations, 2021 .....	\$3,899,227,000
Budget estimate, 2022 .....	4,035,591,000
Committee recommendation .....	4,180,838,000

The Committee recommendation includes \$4,180,838,000 for the National Institute on Aging [NIA].

*Addressing Participant Diversity in Clinical Trials.*—The Committee encourages NIH to establish an operating efficiency working group to conduct an assessment of NIA’s internal infrastructure needs related to research operations, recruitment and engagement—with an emphasis on underrepresented communities—and report back to Congress within 180 days. This review should assess gaps related to the infrastructure needed to ensure its federally funded clinical trials are well-designed and accessible to underrepresented communities at greatest risk of Alzheimer’s disease and Alzheimer’s disease-related dementias and outline the resources needed to address identified gaps, including the appropriate staffing levels needed to support research optimization, grant oversight and compliance.

*Alzheimer’s Disease and Related Dementias.*—The Committee recommends an increase of \$235,000,000 to support NIA-funded Alzheimer’s disease and related dementias [ADRD] research. Since fiscal year 2015, Congress has increased research funding for ADRD by more than 500 percent, making it the largest expenditure of its kind in NIH for good reason: by 2050, the cost to treat and care for those suffering from Alzheimer’s disease is expected to rise possibly to as high as \$1,100,000,000,000 a year. Without a medical breakthrough to prevent, slow, or stop the disease, Medicare- and Medicaid-related costs could rise more than four-fold. NIH-funded research offers hope for finding solutions to manage this disease successfully in the future. To help the Committee better understand the impact these resources are having and the agency’s current efforts, the Committee directs NIH to provide a status report along with the Professional Judgement Budget for ADRD for each of the research milestones tied to the National Plan. The status report should describe where NIH is specifically in terms of implementing milestones and achieving success criteria for efforts that are in progress, plans and objectives for the current and coming year, and outcomes related to the completion of efforts funded in previous years. Since the Professional Judgement Budget for fiscal year 2023 has already been released, the Committee directs NIH to provide this additional information in advance of the fiscal year 2023 CJ. The Committee also needs to better understand what NIA and its research partners believe are the most promising areas for future investment in the next fiscal year and beyond. The Committee directs NIA to provide within 120 days of enactment a plan outlining the new research efforts it intends to pursue in fiscal year 2022 with the increased funding included in the bill and funding freed up from projects that have or will soon be completed.

*Exposome Studies in Alzheimer's Disease and AD-Related Dementias.*—The Committee supports longitudinal, population-based cohort studies into the causes of dementia and recognizes the importance of research to address AD/ADRD disparities. This includes social and contextual factors that contribute to increased risk for disease, and the measure of various exposures over an individual's life course characterized through a mechanistic disparities lens, referred to as the exposome. The Committee urges NIA to utilize its infrastructure of research centers and surveys to examine exposures over an individual's lifetime, including neighborhood disadvantage, and enable the linkage of life course sociocontextual disadvantage to biological outcomes.

*Opioids and Pain Management.*—The Committee provides an increase of \$29,000,000 for NIA to support research related to opioids, pain and pain management, as proposed in the fiscal year 2022 budget.

*Overactive Bladder and Cognitive Impairment Treatment.*—The Committee is concerned that anticholinergic medications commonly prescribed to treat overactive bladder, a condition that affects one in three older Americans, have been shown in recent studies to increase the risk of developing Alzheimer's disease and AD-related dementias. The Committee believes that further research of anticholinergic medications as well as on alternatives to these treatments is urgently needed to establish certainty regarding the safety of these medications as a treatment option for overactive bladder in older adults. The Committee urges NIA to prioritize research grants and contracts that study the long-term use of anticholinergic medications and the risk of cognitive impairment and AD/ADRD. The Committee requests an update on this issue and on research activities to advance safe and effective alternative treatments for overactive bladder in the fiscal year 2023 CJ.

*Population Research.*—The Committee praises NIA for supporting a scientifically innovative population aging research portfolio that reflects some of the Institute's, and nation's, highest scientific priorities including Alzheimer's disease and social inequality in health and the aging process. More research, however, is needed to understand the short and long-term social, behavioral, and economic health consequences of COVID-19 on older people and their families, which NIA is uniquely positioned to foster and support. Existing large-scale, longitudinal and panel surveys, such as the Health and Retirement Study, the National Health and Aging Trends Study, and Understanding America Study, should be enhanced to facilitate scientific research on the complex, multifaceted effects of the pandemic on older, diverse populations. Further, the Committee encourages NIA to support the further development of data infrastructure to promote research on racial, ethnic, gender and socioeconomic disparities in health and well-being in later life and the long-term effects of early life experiences, including for rural, poor and minority populations that may be at enhanced risk for dementia. The Committee urges NIA to continue to support diversity in its cohort studies, with the specific goal of better understanding disease burden and biomarkers by race and geographic region, as well as the underlying pathologies which may differ by race or ethnicity. The Committee believes this could be accom-

plished through enhanced partnerships between existing NIA-funded Alzheimer’s Disease Research Centers [ADRC] and non-ADRC dementia centers in high-risk geographic regions or through the creation of new long-term cohorts in under-represented groups/regions.

*Prion Disease.*—The Committee encourages NIH to continue funding research proposals on Prion Disease that could be relevant for Alzheimer’s Disease Related Dementia. The disease mechanism and clinical presentation of Prion Diseases closely resemble AD/ADRDs. Advances in Prion Disease science have been valuable to the study of other ADRDs and vice versa, and further integration of the fields will benefit scientific pursuits in both fields.

NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES

Appropriations, 2021 .....	\$634,292,000
Budget estimate, 2022 .....	680,186,000
Committee recommendation .....	675,106,000

The Committee recommendation includes \$675,106,000 for the National Institute of Arthritis and Musculoskeletal and Skin Diseases [NIAMS].

*Opioids and Pain Management.*—The Committee provides an increase of \$24,000,000 for NIAMS to support research related to opioids, pain and pain management, as proposed in the fiscal year 2022 budget.

*Scleroderma.*—The Committee continues to encourage NIAMS to expand the scleroderma research portfolio and continue collaborative opportunities with other Institutes and Centers and community stakeholders to advance critical research.

NATIONAL INSTITUTE ON DEAFNESS AND OTHER COMMUNICATION DISORDERS

Appropriations, 2021 .....	\$498,076,000
Budget estimate, 2022 .....	511,792,000
Committee recommendation .....	511,280,000

The Committee recommendation includes \$511,280,000 for the National Institute on Deafness and Other Communication Disorders [NIDCD].

*Hearing Health Screening.*—The Committee recognizes the associated comorbidities and costs of untreated hearing loss and, with the growing aging population, the importance of hearing screening for older Americans. The Committee urges NIH to provide an update in the fiscal year 2023 CJ on hearing screening research for older adults across the NIH. The Committee encourages NIDCD and NIA to support studies that address the research needs and gaps identified by the U.S. Preventive Services Task Force review of hearing screening recommendations for older Americans.

NATIONAL INSTITUTE OF NURSING RESEARCH

Appropriations, 2021 .....	\$174,957,000
Budget estimate, 2022 .....	199,755,000
Committee recommendation .....	199,595,000

The Committee recommendation includes \$199,595,000 for the National Institute of Nursing Research [NINR].

*Health Disparities Research.*—The Committee includes an increase of \$20,000,000 as requested for NINR to support research related to identifying and reducing health disparities.

#### NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM

Appropriations, 2021 .....	\$554,923,000
Budget estimate, 2022 .....	570,165,000
Committee recommendation .....	569,633,000

The Committee recommendation includes \$569,633,000 for the National Institute on Alcohol Abuse and Alcoholism [NIAAA].

*Polysubstance Abuse.*—The Committee is pleased to see NIH supporting research on alcohol/polysubstance use, but urges the Director to continue to support research in this area in the context of NIH's very comprehensive center programs across the U.S., particularly those located in or near areas with socially vulnerable populations. Given the increasing prevalence of polysubstance deaths, particularly among rural and minority communities, the Committee also encourages the Director to support studies on rural and minority communities with high rates of alcohol and polysubstance use mortality.

#### NATIONAL INSTITUTE ON DRUG ABUSE

Appropriations, 2021 .....	\$1,479,660,000
Budget estimate, 2022 .....	1,852,503,000
Committee recommendation .....	1,832,906,000

The Committee recommendation includes \$1,832,906,000 for the National Institute on Drug Abuse [NIDA].

*Barriers to Research.*—The Committee is concerned that restrictions associated with Schedule I of the Controlled Substance Act which effectively limits the amount and type of research that can be conducted on certain Schedule I drugs, especially opioids, marijuana or its component chemicals and new synthetic drugs and analogs. At a time when we need as much information as possible about these drugs and antidotes for their harmful effects, the Committee believes we should be lowering regulatory and other barriers to conducting this research. The Committee appreciates NIDA's completion of a report on the barriers to research that result from the classification of drugs and compounds as Schedule I substances including the challenges researchers face as a result of limited access to sources of marijuana including dispensary products.

*COVID-19 Pandemic and Impact on Substance Use Disorders.*—The Committee is acutely aware of the risks that the ongoing COVID-19 pandemic poses to individuals with substance use disorders [SUDs]. According to CDC, drug overdose deaths accelerated during the pandemic and reached an estimate 93,000 deaths in 2020, the highest number of overdose deaths ever recorded in a 12-month period. Moreover, research supported by NIDA found that individuals with SUDs are at increased risk for COVID-19 and its more adverse outcomes. The Committee commends NIDA for conducting research on the adverse impact of the pandemic on SUDs and encourages the Institute to expand its research on these issues.

*E-Cigarettes.*—The Committee is aware of alarming trends in youth e-cigarette use and recent survey data from the Centers for Disease Control and Prevention indicating that more than 27 percent of high school students and 10.5 percent of middle school students reported using e-cigarettes in 2019. With more than 5.0 million young people using e-cigarettes, there is a greater need for research into therapeutic options for nicotine cessation among youth who have developed addiction to nicotine. The Committee recommends that NIDA support targeted research related to the use and consequences of these devices and into therapies, including both pharmacologic and behavioral therapies, to combat nicotine addiction in pediatric populations.

*Kratom.*—The Committee recognizes that NIDA-funded research has contributed to the continued understanding of the health impacts of kratom, including its constituent compounds, mitragynine and 7-hydroxymitragynine. In order to ensure continued transparency, the Committee directs NIDA to report back to the Committee no later than 120 days after enactment of this act, on all current and past kratom research projects as well as plans for future research projects.

*Marijuana Research.*—The Committee is concerned that marijuana policies on the Federal level and in the states (medical marijuana, recreational use, etc.) are being changed without the benefit of scientific research to help guide those decisions. NIDA is encouraged to continue supporting a full range of research on the health effects of marijuana and its components, including research to understand how marijuana policies affect public health and the impacts associated with high potency cannabis. There is insufficient scientific information about the short-term and long-term effects of compounds found in cannabis, including cannabidiol [CBD] and cannabigerol [CBG], cannabichromene [CBC], minor cannabinoids, and terpenes. Additional, coordinated, research on a national scale is necessary to determine the toxicology and medicinal effects of CBD, CBG, CBC, minor cannabinoids, and terpenes. The Committee believes that NIH should strongly consider significantly expanding the use of funds to study the medicinal effects and toxicology of CBD, CBG, CBC, minor cannabinoids, and terpenes. This expanded effort should include funding of clinical trials with academic health centers to study the long-term medicinal benefits and toxicology of CBD and CBG.

*Medication-Assisted Treatment for Methamphetamines.*—The Committee is concerned by the rise in methamphetamine use and addiction in the United States. While there are currently approved medications for alcohol and opioid addiction, there remains no FDA-approved medication for methamphetamine addiction. The Committee urges NIDA to continue their ongoing trials to expeditiously find and approve a treatment for methamphetamine.

*Methamphetamine and Other Stimulants.*—According to data from CDC, 32,000 overdose deaths involved drugs in the categories that include methamphetamine and cocaine in 2019, an increase of over 700 percent. The sharp increase has led some to refer to stimulant overdoses as the “fourth wave” of the current drug addiction crisis in America following the rise of opioid-related deaths involving prescription opioids, heroin, and fentanyl-related substances.

Methamphetamine is highly addictive and there are no FDA-approved treatments for methamphetamine and other stimulant use disorders. The Committee continues to support NIDA's efforts to address the opioid crisis, has provided continued funding for the HEAL Initiative, and supports NIDA's efforts to combat the growing problem of methamphetamine and other stimulant use and related deaths. The Committee recognizes that methamphetamine is more frequently implicated in overdose deaths than opioids across numerous regions, representing an epidemic of its own. The substantial morbidity and mortality associated with methamphetamine use is often driven by increases in cardiovascular disease associated with it that are poorly understood. The Committee encourages NIDA to examine the cardiovascular effects of methamphetamine misuse and implications for treatment and to partner with institutions in areas with higher numbers of methamphetamine-related deaths compared to opioid-related deaths and that have demonstrated research expertise in methamphetamine and cardiovascular diseases.

*Opioid Initiative.*—The Committee continues to be concerned about the opioid overdose epidemic and appreciates the important role that research plays in the various Federal initiatives aimed at this crisis. The Committee is also aware of the most recent data from CDC that shows opioid overdose fatalities increasing from 2018 to 2019, with the primary driver being the increased overdose deaths involving synthetic opioids, primarily illicitly manufactured fentanyl. Approximately 174 people die each day in this country from drug overdose (over 100 of those are directly from opioids), making it one of the most common causes of non-disease-related deaths for adolescents and young adults. To combat this crisis the Committee has provided within NIDA's budget \$405,443,000 for the Institute's share of the HEAL Initiative, \$135,148,000 above the fiscal year 2021 enacted level and the same as the fiscal year 2022 budget request. With the additional funding, NIDA efforts should be targeted to the following areas: development of safe and effective medications and new formulations and combinations to create a comprehensive care model in communities nationwide to prevent opioid misuse, expand treatment capacity, enhance access to overdose reversal medications, and enhance prescriber practice; test interventions in justice system settings to expand the uptake of medication for opioid use disorder and methods to scale up these interventions for population-based impact; and develop evidence-based strategies to integrate screening and treatment for opioid use disorder in emergency department and primary care settings. The Committee also includes an additional \$185,359,000 in NIDA to support basic research related to opioids and other stimulants, as requested in the fiscal year 2022 budget request.

*Pain and Addiction Collaborative Research.*—The Committee recommends that the NIH encourage collaborative research awards through NINDS and the NIDA for pain and addiction treatment and research.

*Raising Awareness and Engaging the Medical Community in Drug Abuse and Addiction Prevention and Treatment.*—Education is a critical component of any effort to curb drug use and addiction, and it must target every segment of society, including healthcare

providers (doctors, nurses, dentists, and pharmacists), patients, and families. Medical professionals must be in the forefront of efforts to curb the opioid crisis. The Committee continues to be pleased with the NIDAMED initiative, targeting physicians-in-training, including medical students and resident physicians in primary care specialties (e.g., internal medicine, family practice, and pediatrics). NIDA should continue its efforts in this area, providing physicians and other medical professionals with the tools and skills needed to incorporate substance use and misuse screening and treatment into their clinical practices. The Committee recommends that NIDA continue to provide support for the education of scientists and practitioners to find improved prevention and treatment interventions for substance use disorders as the Institute has done for the COVID-19 pandemic.

#### NATIONAL INSTITUTE OF MENTAL HEALTH

Appropriations, 2021 .....	\$2,103,708,000
Budget estimate, 2022 .....	2,213,574,000
Committee recommendation .....	2,218,900,000

The Committee recommendation includes \$2,218,900,000 for the National Institute of Mental Health [NIMH], including \$76,000,000 appropriated from the NIH Innovation Account.

*Autism.*—The Committee encourages NIH to continue to prioritize and invest in research on autism consistent with the objectives outlined in the Interagency Autism Coordinating Committee’s Strategic Plan for Autism Spectrum Disorder. The Committee also encourages NIH to support greater investment in research and collaborations focused on addressing the gaps outlined in the Strategic Plan, including research on lifespan issues to address the needs of transition-age youth and adults on the spectrum, research to enable development of evidence-based services, and research to support the development and delivery of new and improved screening tools, treatments, and interventions. The Committee further encourages NIMH to work collaboratively with NIMHD to support research on the socioeconomic, racial and ethnic health disparities associated with autism spectrum disorder.

*Impact of COVID-19 on Mental Health.*—The Committee includes an increase of \$25,000,000 for NIMH to expand research on the impact of the COVID-19 pandemic on mental health, consistent with the fiscal year 2022 budget request.

*Suicide Prevention.*—The Committee is encouraged that 2019 was the first year in two decades in which the suicide rate decreased. But death by suicide remains the tenth leading cause of death in the United States, and the Committee remains committed to providing the resources necessary to address this alarming crisis. The Committee commends NIMH for consistently expanding resources for suicide screening and prevention research over the last four fiscal years and strongly encourages the Institute to continue to prioritize suicide research in fiscal year 2022, with special emphasis on producing models that are interpretable, scalable, and practical for clinical implementation, including utilization of healthcare, education and criminal justice systems that serve populations at risk. In addition, the Committee encourages NIMH to prioritize research efforts related to primary care settings to evalu-

ate suicide prevention interventions, strategies, and programs, including assessments of the effects of the COVID-19 epidemic. The Committee requests that NIMH provide an update on these efforts in the fiscal year 2023 CJ.

*Veteran Suicide Prevention.*—The Committee is concerned with suicide rates among veterans and is aware of NIMH collaborations with the Department of Veterans Affairs and the Department of Defense to strategically plan and coordinate research particularly around the area of suicide. The Committee encourages NIMH to continue to support research related to veteran suicide in the context of the NIMH suicide prevention portfolio, and to work with the Department of Veterans Affairs and the Department of Defense to identify gaps or opportunities where NIMH research may enhance suicide mitigation efforts for this at-risk population.

#### NATIONAL HUMAN GENOME RESEARCH INSTITUTE

Appropriations, 2021 .....	\$615,780,000
Budget estimate, 2022 .....	632,973,000
Committee recommendation .....	634,598,000

The Committee recommendation includes \$634,598,000 for the National Human Genome Research Institute [NHGRI].

*Computational Medicine and RNA Molecules.*—The Committee is encouraged by recent discoveries in the computational medicine field that are helping uncover the cause of disease onset and progression. Reports indicate that an individual's sex, ancestry, and age differentially affect the individual's regulatory RNA molecules and their impacts. The Committee recognizes that more research in this area could lead to new and important biological discoveries, improve our understanding of diseases processes and herald personalized approaches to diagnosis, prognosis, and therapy. The Committee urges NHGRI to continue to support computational and experimental research on RNA molecules and the mechanisms through which they affect biological processes that cause disease.

*Data-Sharing and Privacy.*—To advance the U.S. leadership in the biomedical research enterprise while protecting genomic information of the people of the United States, the Committee encourages the NIH to convene a working group to determine whether there are national security risks associated with potential collaborations where individually identifiable health information of the people of the U.S. is exchanged. This working group should evaluate what types of data sharing could pose a national security risk among private, public, and academic institutions that partake in science and technology research and their research partners, with a focus on international partners. This should include a review of what circumstances would constitute a sharing of data and make recommendations regarding areas where Federal agencies can coordinate to increase education to such private and academic research institutions that partake in science and technology research to ensure the institutions can better protect themselves from national security threats with a strengthened understanding of intellectual property rights, research ethics, data misuse, as well as education on how to recognize and report such threats.

*Emerging Centers of Excellence in Genomic Sciences.*—The Committee recommendation includes no less than \$15,000,000 to sus-

tain and grow the Emerging Centers of Excellence in Genomic Sciences competitive grant program, an increase of \$2,500,000 above the fiscal year 2021 enacted level. The Committee maintains prior direction that present awardees of the Centers for Excellence in Genomic Sciences program shall not be eligible to receive these grants.

*Germline RUNX1 Mutations.*—The Committee commends NHGRI for collaborating with NCI to launch and maintain the RUNX1–FPD Clinical Research Study, the only longitudinal natural history study of patients with germline RUNX1 mutations and their families. This study has broad implications for the fields of hematology and oncology because it offers researchers the rare opportunity to monitor the genomic evolution of cancer within a precancerous population in real time. Currently, the study tracks only 50 of the approximately 20,000 people in the United States with these mutations. The Committee urges NHGRI to provide additional resources for the study to allow more patients to participate. In addition, the Committee encourages NHGRI to continue to work towards implementation of an open source database to share data in real-time for the benefit of the entire research community and the patients and their families searching for answers.

NATIONAL INSTITUTE OF BIOMEDICAL IMAGING AND BIOENGINEERING

Appropriations, 2021 .....	\$410,728,000
Budget estimate, 2022 .....	422,039,000
Committee recommendation .....	421,617,000

The Committee recommendation includes \$421,617,000 for the National Institute of Biomedical Imaging and Bioengineering [NIBIB].

*Medical Imaging and Data Resource Center.*—The Committee supports NIBIB’s work to develop the Medical Imaging and Data Resource Center, a growing repository of images and associated data to help accelerate strategies for COVID–19 diagnosis and therapeutic management. This resource will enable broader use of machine learning algorithms in medical image analysis for coronavirus patients and serve as a model for understanding other diseases to improve patient outcomes across medical disciplines, including diagnosis, monitoring, and predictive prognoses. The Committee urges NIBIB to continue its engagement with external stakeholders to advance this promising project.

NATIONAL CENTER FOR COMPLEMENTARY AND INTEGRATIVE HEALTH

Appropriations, 2021 .....	\$154,162,000
Budget estimate, 2022 .....	184,323,000
Committee recommendation .....	184,249,000

The Committee recommendation includes \$184,249,000 for the National Center for Complementary and Integrative Health [NCCIH].

*Creative Arts Therapy.*—The Committee recognizes the potential of creative art therapies as impactful tools for addressing the effects of disorders of aging. However, clinical studies on these applications either have been limited in scale, have not been designed within a scientific and statistically significant framework, or have produced only preliminary or anecdotal results. The Trans-NIH

Music and Health Work Group, under the leadership of NCCIH, is currently developing a toolkit to improve the efficiency of future clinical trials for music-based interventions to treat and prevent disorders of aging. The NCCIH is directed to provide the Committee with a report within 180 days of enactment of this Act on the progress of the toolkit’s development and any plans for pilot projects to test and refine the toolkit, including future funding needs.

*Pain Management.*—The Committee includes an increase of \$26,000,000 for NCCIH to support research related to pain and pain management, consistent with the fiscal year 2022 budget request. The Committee urges NIH, along with the Department of Defense and the Department of Veteran’s Affairs, to continue to support research on non-pharmacological treatments for pain management and comorbidities including opioid misuse, abuse, and disorder in military personnel, veterans, and their families. The Committee is encouraged by NCCIH’s work to support research on behavioral strategies to manage chronic pain and improve adherence to the medical treatment of opioid use disorders and reduce the psychological and physical cravings to use opioids, however, opioid abuse continues to persist among young veterans. The Committee urges the NIH, VA, and DOD to support and expand research on non-pharmacological treatments to ensure the best quality of care for our nation’s veterans and service members. The Comprehensive Addiction and Recovery Act (Public Law 114–198) calls for an expansion of research and education on and delivery of complimentary and integrative health to veterans, and the NCCIH can play an important role in coordinating efforts with the VA, DOD, and other relevant agencies.

NATIONAL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES

Appropriations, 2021 .....	\$390,865,000
Budget estimate, 2022 .....	652,244,000
Committee recommendation .....	651,101,000

The Committee recommendation includes \$651,101,000 for the National Institute on Minority Health and Health Disparities [NIMHD].

*Cardiovascular Disease [CVD].*—CVD, including heart disease and stroke, is the leading cause of death in the U.S. and worldwide. It is estimated that 1 in 2 U.S. adults will develop CVD during their lifetime. Further, hypertension affects almost 1 in 2 U.S. adults, disproportionately affecting minority populations, and accounting for approximately 1 in 3 CVD events in U.S. adults. The Committee encourages NIMHD to focus funding on reducing disparities in CVD in African Americans from the rural South and among poor people, where the burden is significant.

*Chronic Diseases and Health Disparities.*—In fiscal year 2021, NIMHD undertook an initiative to support regional comprehensive research and coordinating centers on the prevention, treatment, and management of multiple chronic diseases associated with health disparities. The Committee remains strongly supportive of this effort and is pleased the awards emphasized support for regional based, multi-institutional consortia that will produce collaboration and research that can be easily translated into sustainable

community and health system changes that promote chronic disease treatments long after research projects have concluded. The Committee recommendation reflects sufficient funding for NIMHD to continue this effort in fiscal year 2022.

*Research Centers in Minority Institutions [RCMIs].*—The Committee recognizes the importance of the RCMI Research Coordination Network in ensuring that collectively, institutions can engage in multi-site collaborative research, especially as the United States and NIH positioned themselves to address the challenges imposed by the COVID–19 pandemic to our health system and underserved populations.

*Health Disparities Research.*—The Committee includes an increase of \$250,000,000 for NIMHD to support additional research related to identifying and reducing health disparities, as requested in the fiscal year 2022 budget.

JOHN E. FOGARTY INTERNATIONAL CENTER FOR ADVANCED STUDY IN  
THE HEALTH SCIENCES

Appropriations, 2021 .....	\$84,044,000
Budget estimate, 2022 .....	96,322,000
Committee recommendation .....	96,268,000

The Committee recommendation includes \$96,268,000 for the Fogarty International Center [FIC].

*Global Health Research.*—COVID–19 has shown the importance of FIC’s essential role in global health research training, pandemic preparedness, and global health security by assisting low- and middle-income countries [LMIC] in advancing their own research and health solutions and tools. These investments strengthen research capacity across a wide range of diseases and cross-cutting public health needs, including infectious diseases, non-communicable diseases, environmental health, trauma and injury, and mobile technologies—all of which are critical to improving economic and global health security. The COVID–19 pandemic illustrates the importance of FIC’s efforts to strengthen country capacity to enable cutting edge research at the origin of outbreaks, improving the likelihood that emerging diseases can be addressed at their source—ultimately protecting American health security. The Committee believes these long-standing relationships and unique capabilities position FIC to play an important and expanded role in pandemic preparedness, including developing a network of modeling hubs and joint research programs to engage LMIC investigators to collaboratively train for pandemic preparedness. The Committee requests information from FIC in their annual budget justification about how FIC training programs and research collaborations have, and with additional resources can, increase efforts to advance global health security and pandemic preparedness. The Committee is particularly interested in understanding FIC’s unique capabilities and capacities as well as coordination with other Federal government agencies engaged in these efforts.

*Health Disparities Research.*—The Committee provides an increase of \$10,000,000 for FIC to support additional research related to identifying and reducing health disparities, as requested in the fiscal year 2022 budget request.

## NATIONAL LIBRARY OF MEDICINE

Appropriations, 2021 .....	\$463,787,000
Budget estimate, 2022 .....	474,864,000
Committee recommendation .....	476,074,000

The Committee recommends \$476,074,000 for the National Library of Medicine [NLM]. Of the funds provided, \$4,000,000 is for the improvement of information systems, to remain available until September 30, 2023.

## NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES

Appropriations, 2021 .....	\$855,421,000
Budget estimate, 2022 .....	878,957,000
Committee recommendation .....	878,072,000

The Committee recommendation includes \$878,072,000 for the National Center for Advancing Translational Sciences [NCATS]. The Committee includes bill language directing at least \$60,000,000 of this amount to be used for the Cures Acceleration Network [CAN].

*Advanced Genomic Technologies.*—The Committee strongly supports NCATS, in collaboration with the NIH All of Us Research Program, continuing to apply and evaluate advanced genomic technologies, specifically long-read genome sequencing. Collaboration with multiple entities including research institutes with expertise in the application of short-read sequencing in rare genetic disorders and depth of experience with long-read sequencing; academic and clinical institutions with the capability to identify and include family units to participate in this effort; and clinical geneticists with extensive experience in variant identification and analysis is strongly encouraged. Special emphasis should be placed on the inclusion of minority populations.

*Clinical and Translational Science Awards [CTSA].*—The Committee includes \$600,925,000 for the CTSA program, an increase of \$14,084,000 above the fiscal year 2021 enacted level. The Committee maintains its strong support for the CTSA program and commends the national network for their efforts to modernize the translation of research into health benefits across the full spectrum of medical research, for their contributions to the COVID–19 response, and for addressing health disparities and health equity, and enhancing rural care. The Committee is concerned the recent CTSA Funding Opportunity Announcement [FOA] could alter the CTSA’s strategic direction and divert appropriated resources intended for CTSA hubs. Resources provided by the Committee are intended to enhance funding for hubs, thus bolstering the national network. Therefore, NCATS is directed to ensure that any CTSA hub that has successfully recompeted through the new FOA does not receive more than a 5 percent reduction in total annual support for its core hub responsibilities. In addition, the Committee directs that all CTSA hub partner organizations that contribute key resources and expertise to a CTSA hub’s translational work should continue to be treated as full partners, including treatment of their entire NIH research enterprises in the calculation of hub budgets. This will support local CTSA hubs and maintain collaborations with community organizations and research and academic partners

that expand the full spectrum of research and translation, and foster innovation. Further, the Committee strongly encourages NCATS to fund expanded programs that address the significant disparities and burden of disease disproportionately affecting minority and special populations. Focusing on this capacity will reduce the burden of disease and promote health equity among vulnerable populations. In addition, NCATS is expected to support opportunities for CTSA that substantively respond to disparities in racial health equity by promoting research and collaborations that address the distinctive medical and health needs of underserved populations; remediate the effects of environmental and structural racism; and advance the dissemination and implementation of learning around health equity. Finally, the Committee reiterates previous direction that NCATS inform the Committee prior to any planned changes to the size of hub awards, scope of the program, or strategic changes to the program, specifically noting that the Committee shall be consulted prior to any new CTSA initiatives being implemented.

*Collaboration with Business Incubators.*—The Committee supports the mission of NCATS to accelerate the translation of basic research findings into treatments and pharmaceutical products for use with patients to treat and cure diseases and illness. This activity is critical to ensure that the Nation’s investment of over \$40,000,000,000 each year in NIH research results in tangible benefits to the public. The Committee urges NCATS to explore ways to increase the success in meeting its mission by exploring funding opportunities or potential collaborations with business incubators that host small to midsize science, research, and pharmaceutical companies that use services-based approaches to nurture and guide the member companies to success. Collaborations with such business incubators may offer the most effective way to advance translational science. Priority consideration should be given to nonprofit life science incubators that seek to advance biotechnology, maximize synergies between nonprofit scientists and their commercial colleagues, and launch new ideas and discoveries that will make a difference including drug discovery, biomarker discovery and translational biotechnology around common research challenges in an environment conducive to interaction, collaboration and focus.

*Cures Acceleration Network [CAN].*—The Committee continues its support for CAN to further reduce barriers between research discovery and clinical trials at \$60,000,000, the same as the fiscal year 2021 enacted level. The Committee urges NCATS to consider supporting activities within CAN and other NCATS’ offices or divisions that focus on precision medicine—from precision prevention, to precision diagnosis, to precision therapeutics. Activities should also include the ability to generate the data to demonstrate the efficacy and cost effectiveness of precision medicine.

*Full Spectrum of Medical Research.*—The Committee applauds NIH efforts to support and advance the full spectrum of medical research, which ensures breakthroughs in basic science are translated into therapies and diagnostic tools that benefit patient care while disseminating cutting-edge information to the professional community. The Committee notes the importance of flagship initia-

tives, including the Clinical and Translational Science Awards program, to these important efforts.

OFFICE OF THE DIRECTOR

Appropriations, 2021 .....	\$2,423,710,000
Budget estimate, 2022 .....	2,249,859,000
Committee recommendation .....	2,550,813,000

The Committee recommendation includes \$2,550,813,000 for the Office of the Director [OD]. Within this total, \$651,202,000 is provided for the Common Fund and \$12,600,000 is included for the Gabriella Miller Kids First Research Act (Public Law 113–94).

*Adult Cellular Therapies.*—To support collaborative evidence development, the agreement encourages the NIH-in coordination with FDA and HRSA-to continue their efforts to enhance transparency regarding outcomes from adult cellular therapies that are FDA-approved or being administered under FDA Investigational New Drug or Investigational Device Exemption protocols by ensuring that results are submitted to appropriate databases such as the Stem Cell Therapeutic Outcomes Database and ClinicalTrials.gov.

*Advancing Cell-Based Therapies.*—The Committee encourages NIH to continue supporting research on cell-based therapies for patients with serious or life-threatening conditions. The Committee encourages NIH to support efforts for development and optimization of cell-based therapies; efforts to support sharing of best practices and lessons learned; research to advance regulatory science; workforce development activities; and collaborative evidence development, including continued NIH collaboration with FDA and HRSA to enhance transparency regarding outcomes from cellular therapies from adult (somatic) cells that are FDA approved or being administered under FDA Investigational New Drug or Investigational Device Exemption protocols by ensuring that results are submitted to appropriate databases such as the Stem Cell Therapeutic Outcomes Database and ClinicalTrials.gov.

*All of Us Research Program/Precision Medicine Initiative.*—The Committee provides a total of \$541,000,000 for the All of Us precision medicine initiative, \$41,000,000 above the fiscal year 2021 enacted level and consistent with the fiscal year 2022 budget request. The total includes \$150,000,000 authorized in the 21st Century Cures Act (Public Law 114–255) to be transferred from the NIH Innovation Account. The Committee directs NIH to continue its efforts to recruit and retain participants from historically underrepresented populations in biomedical research, and to expand its efforts to enroll participants from geographically diverse communities. To achieve this diversity, NIH is encouraged to support additional avenues for enrollment from the Midwest and Great Plains regions that facilitate participation from both rural and urban communities. These efforts will help ensure that All of Us scientific resources reflect the rich diversity of our country and that advances made from this program will benefit the health of all Americans.

*ALS Research Coordination and Acceleration.*—The Committee is aware of the significant need to expand scientific understanding of amyotrophic lateral sclerosis [ALS] and to translate ALS science more rapidly into effective treatments that can make ALS a livable disease. To achieve these outcomes as soon as possible, the Com-

mittee urges the NIH to organize a trans-agency initiative to develop an ALS research strategic plan. The plan, which should be developed in collaboration with the nation's leading ALS patient and biomedical research organizations, should: identify the most promising areas of research and the specific NIH activities where additional funding could lead to more rapid translation of discoveries for treatments, prevention, and interventions or technologies that can reduce the burden of ALS; identify which institutes are undertaking ALS and ALS-related research and which are not but have a role to play; and uncover any impediments to ALS research. As part of this effort, the agency should hold at least one public meeting at which stakeholders can provide testimony. This effort should include, but not be limited to NINDS, NIA, NIEHS, NHGRI and NCATS. Likewise, to leverage the work done thus far in a meaningful way and make measurable progress towards a cure for ALS patients, it is necessary to increase NIH funding for ALS to bring together researchers from the various institutes to capitalize on recent advancements, augment existing efforts by bringing into the fight against ALS leading researchers from other more developed disciplines, and expedite the drive towards a cure the ALS community so desperately needs. Additional funding will incentivize the continued exploration of novel therapeutic pathways, and allow the Agency to support additional clinical trials, thereby ensuring that the progress of the last decade can germinate into cures with the next decade. In addition, the Committee strongly supports the Accelerating Leading-edge Science in ALS [ALS2] Transformative Research Award program for ALS and encourages NIH to consider optimal approaches for supporting innovative and transformative ALS research when developing the ALS research strategic plan.

*Alzheimer's Disease and Dementia Screening Tools.*—The Committee remains very interested in opportunities to detect cognitive impairment that may be caused by Alzheimer's disease and related dementias as early as possible. The Committee urges the NIH to update its analysis of validated screening tools, including digital screening tools that can reliably detect mild cognitive impairment. This review should focus on identifying tools that have been developed in the time since the last assessment was conducted and on providing information to assist healthcare providers in regularly using such tools to assess the cognitive health of their patients.

*Amyloidosis.*—The Committee urges NIH to continue its expansion of research efforts in amyloidosis, a group of rare diseases characterized by abnormally folded protein deposits in tissues. Amyloidosis is often fatal, and there is no known cure. Current methods of treatment are risky and unsuitable for many patients. Average survival without treatment is in months. The Committee urges NIH to inform the Committee on the steps NIH has taken to increase research funding into the causes of amyloidosis and the measures taken to improve the diagnosis and treatment of this devastating group of diseases.

*Analyzing Sex and Race/Ethnicity Differences and Long-Term Health Effects of COVID-19.*—The Committee recognizes that the COVID-19 pandemic has exposed an array of related health disparities, including a difference in acute disease severity and out-

comes between female and male patients. Outcomes for individuals who continue to experience COVID-19 symptoms and/or damage to organs to varying degrees months after their initial diagnosis may also be impacted by these factors. To better understand how sex and gender differences and race/ethnicity variables are implicated in the severity of the COVID-19 pandemic, the Committee encourages the ICs in coordination with the OD and Office of Research on Women's Health to support research that studies how sex as a biological variable, gender as a social element and race/ethnicity variables impact short and long-term outcomes due to infection with SARS-CoV-2.

*Animal Model Validation.*—The Committee is aware of efforts ongoing at the NIH to evaluate and improve validation of animal models of disease utilized by NIH intramural and extramural researchers. The Committee acknowledges that appropriate model validation is essential for researchers to conduct rigorous research that can be translated into clinical practice to improve human and animal health. The Committee encourages the NIH to provide a report to the Committee no later than 1 year after enactment outlining the progress of its efforts to improve animal model validation, support the development of models to improve translation, and what additional funding may be required.

*Artificial Intelligence/Big Data.*—NIH continues to expand its efforts to develop its capacity to leverage the potential of machine learning [ML] to accelerate the pace of biomedical innovation. The Office of Data Science Strategy [ODSS], collaborating with NLM, has been working to ensure new research datasets meet the international Fast Healthcare Interoperability Resources [FHIR] standard requirements and provide opportunities for data experts to work in the field of biomedicine. It is also developing a governance structure for the rapidly develop field, including principles for consent and privacy, fairness and equity, security and accountability. While encouraging, making full use of these opportunities, which rely on scale and collaboration across areas of expertise, presents unique challenges to NIH's massive federation of institutes and centers. Controlled access mechanisms, for example, as required by the NIH Genomic Data Sharing Policy, are the primary means through which NIH protects the privacy and respects the wishes of research participants whose data are stored and shared for secondary research. However, investigator access to data stored and managed in NIH-supported repositories continues to be burdensome and inconsistent, despite numerous incremental improvements implemented by past working groups. The inefficiencies presented by NIH's federated data sharing landscape will likely become intractable as data access requests continue to increase, new NIH Institute, Center and Office [ICO]-supported data repositories proliferate, and innovative data access processes are piloted and implemented across NIH. Moreover, a lack of harmonized data access processes across NIH will stymie the goal of the emerging NIH data science infrastructure to make data more Findable, Accessible, Interoperable, and Reusable [FAIR]. Given these developments, it is imperative for NIH to develop more efficient, streamlined data access and control processes that are standardized and scalable across the agency to enable timely and secure access to research

data while preserving participant protections. To achieve this goal, the Committee directs NIH to engage stakeholders across the agency to develop best practices to standardize controlled data access processes. Such an effort will streamline access, support the emerging NIH data science infrastructure, and meet the needs of the research community in a manner that preserves the original protections agreed to when the data were collected, taking into account potential cost and burden. It should consider lessons learned from past efforts, review emerging processes and technologies currently being piloted by ICO repositories, and develop new potential solutions that leverage technological advancements, while continuing to support policies for appropriate privacy protections and respect the wishes of research participants. Potential participant re-identification risks associated with the aggregation of disparate data, including data in controlled access, should be considered. The Committee directs NIH, no later than 1 year after enactment of this Act, to develop and present recommendations for: potential common solutions for streamlining and centralizing controlled access mechanisms through implementation improvements (e.g., more efficient workflows or Data Access Committee processes, including a single, centralized DAC process) and use of emerging technological advancements (e.g. automation, single sign-on); making controlled-access data (e.g., human data that may contain sensitive information such as health conditions, including genomic data) stored in NIH-operated and supported repositories more readily findable and accessible; and assess the extent to which increased interoperability of controlled access repositories (e.g., permitting combining disparate data sets, aggregating data across time) leads inadvertently to gaps in oversight and control, including explicit consideration of increased re-identification risk. To support NIH's continued efforts, the Committee recommendation includes \$122,000,000, including \$50,000,000 for the Bridge2AI initiative and other ML-focused investments and \$72,000,000 for ODSS. The Committee directs ODSS and NLS to continue to provide quarterly updates on its efforts.

*BRAIN Initiative.*—As the seat of consciousness and cognition, the brain presents unique challenges to the fields of science and medicine, especially given disorders of the brain such as Alzheimer's disease, addiction, and depression, which represent an enormous cost to the American people. To better understand how the brain works, the disorders that affect it, and to develop more effective treatments, NIH launched the BRAIN Initiative in 2013 to exploit opportunities arising from a convergence of advances from many science and engineering disciplines. In 2019, the "BRAIN 2.0" Working Group reported that "transformative projects" were now possible at a scale and level of completeness that were previously unimaginable. Congress provided initial funding for two of these projects in fiscal year 2021, and the recommendation includes resources to formally launch the third, all of which stand out for their importance to human health and technical viability. Overall, the recommendation provides \$640,000,000 for the BRAIN Initiative, including \$152,000,000 authorized in the 21st Century Cures Act (Public Law 114–255). The overall funding level includes \$70,000,000 for the Human Brain Cell Atlas;

\$30,000,000 for the Armamentarium for Brain Cell Access; and \$20,000,000 for the Brain Connectivity Map. The latter is an ambitious new initiative that NIH has been exploring with the Department of Energy Office of Science to complete a micro-connectivity map of the mouse brain and comprehensive mapping of long-range pathways in human brains. The Committee is encouraged that BRAIN managers are committed to focused, large-scale efforts with multidisciplinary teams and capabilities spanning biological sciences, engineering, and data storage and computation, with open platforms for dissemination of the tools and knowledge realized through these projects, including adherence to FAIR (Findable, Accessible, Interoperable, and Reusable) standards.

*Building Diversity in Cell Models of Human Disease.*—Proportionate representation of ethnically diverse populations in bioscience research is imperative to fully understand the mechanisms that support health or lead to disease, and to develop effective therapies for everyone. The advent of human stem cell technology has made it possible to accelerate discovery by using human cell-based models that enable early-stage research to better understand health and disease. However, the model cell lines that researchers use over-represent a male population of European descent. Therefore, the Committee encourages NIH to consider funding the development of a specialized suite of ethnically diverse and tissue-specific cell lines with structures labeled for studying disease mechanism and detection. If funded, the originating cells should be collected from volunteer donors in a culturally sensitive manner who have consented to allow for derivation of cell line(s), distribution, and use. NIH should consider collaborating with experienced research community leaders in building cell line collections that are publicly accessible and distributed in a culturally appropriate manner.

*Cerebral Palsy.*—The Committee commends NIH, and specifically NINDS and NICHD, for supporting research on mechanisms leading to Cerebral Palsy [CP], health outcomes for those affected, biomarkers that may aid in diagnosis or treatment selection, and interventions for treatment and prevention of CP. The Committee strongly encourages NIH to strengthen, accelerate, and coordinate cerebral palsy research across the lifespan, including in areas identified as priorities in the 2017 NINDS/NICHD Strategic Plan for CP Research, such as basic and translational discoveries, including neuroprotective, regenerative medicine and mechanisms of neuroplasticity, as well as implementation and clinical studies aimed at early detection and intervention, comparative effectiveness and functional outcomes. 2022 will be 5 years since the 2017 NINDS/NICHD Strategic Plan for CP Research was established. The Committee encourages that a follow-up workshop be held in 2022 in conjunction with key stakeholders. The purpose of this workshop will be to provide updates on promising research performed to date with the goal to further refine the specific opportunities that were identified in the 5 to 10 year NIH strategic plan including early detection and intervention.

*Childhood Post-Infectious Neuroimmune Disorders.*—The Committee continues to be concerned that some children, following streptococcal and other infections, may experience the onset of

neuropsychiatric and behavioral disorders. These auto-inflammatory encephalopathic conditions include Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections and Pediatric Acute-onset Neuropsychiatric Syndrome. Due to a paucity of research and limited avenues of treatment, children continue to encounter significant delays in identification and treatment, resulting in escalation of mental health symptoms and associated costs. The incidence of neurological and psychiatric symptoms associated with SARS CoV-2 underscores the need for research that expands our understanding of neuropsychiatric illness following infection. Because these complications lie at the nexus of medical and mental health, investigations into their mechanisms have far-reaching implications. The Committee encourages NIH to explore cross-disciplinary research in this area, including neurobiology, neurology, immunology, rheumatology, infectious disease, and mental health, and report to the Committee in the fiscal year 2023 CJ on the understanding of the incidence, causes, diagnostic criteria, and treatment of these conditions.

*Chimera Research.*—The Committee supports NIH’s funding limitation regarding the introduction of human pluripotent cells into non-human vertebrate animal pre-gastrulation stage embryos. The Committee takes seriously the bio-ethical considerations regarding the creation of human-animal chimeras and the continuation of research using these cells.

*Chimpanzees at the Alamogordo Primate Facility.*—When Congress passed the CHIMP Act it intended for all NIH-owned chimpanzees to be retired to sanctuary. Despite this, in 2019 NIH created an internal panel, developed outside the scope of Congress’ mandate under the CHIMP Act, and determined that not all of the chimpanzees living at the Alamogordo Primate Facility [APF] could be safely transferred to Chimp Haven, the national sanctuary. While NIH cites the health condition of the chimpanzees as a reason to maintain them at APF, it is because of their health and long history of laboratory use that makes it urgent they be provided an opportunity to live the remainder of their lives in sanctuary, even if for a short period. This is not only a concern about chimp welfare, but also taxpayer spending. According to the most recent APF contract, it costs approximately \$133 per day per chimpanzee to keep them at APF compared to \$42 per chimpanzee per day at Chimp Haven. The APF costs will continue to increase as the population declines while Chimp Haven costs will decline as their population increases. Therefore, recognizing the best interests of both the chimps and taxpayer, the Committee strongly encourages the NIH to resume transport of all APF chimpanzees to Chimp Haven no later than 30 days after enactment of this Act and complete transfer within the following 6 months. Movement of government-owned and supported chimps from Southwest National Primate Research Center [SNPRC] and Keeling Center for Comparative Medicine and Research [KCCMR] are also encouraged following transport of the APF chimpanzees to Chimp Haven. The Committee also directs NIH to provide a written report to the Committee each quarter, beginning no later than March 31, 2022 that shall include: (1) the number of chimpanzees transported to the national sanctuary over the last quarter; (2) a census of all government-owned

and supported chimpanzees remaining, if any, at APF, SNPRC or KCCMR; and (3) a list of any chimpanzee deaths that have occurred at any time after January 1, 2020 at either APF, SNPRC or KCCMR.

*Collection and Reporting of Animal Research Numbers and Agency Funding.*—The Committee recognizes that Congress has long expressed an interest in reducing the use of nonhuman animals in NIH-funded research and replacing animals with valid and reliable non-animal alternatives when appropriate for the science. In the National Institutes of Health Revitalization Act of 1993, Congress first requested that the agency create a plan for doing so. The Committee also recognizes the scientific community’s stated commitment to the “three Rs” of replacement, reduction, and refinement. Integral to that commitment are the accurate counting of animals used in research and testing and the accurate reporting of NIH funding dedicated to projects involving animals. The Committee recognizes that it has been NIH’s policy since 1985 to collect an “average daily inventory” of vertebrate animals housed in research facilities that wish to receive agency funding. The Committee understands that domestic facilities are required to file such documentation every 4 years as part of an Animal Welfare Assurance and that copies of the documents are available to the public only through Freedom of Information Act requests. The Committee requests a report from NIH within 180 days of enactment of this Act outlining a plan for collaborating with USDA to increase the accuracy and transparency of the data collected. The plan should explain how NIH will collect the information annually and include a draft form that requires the total number of animals per species bred and used in the previous year and assigns all animals to a pain and distress category. The plan should also include details on what NIH will need to create a publicly accessible online database for dissemination of this information. Secondly, the Committee requests that NIH include in its report a plan for implementing a system that tracks which agency-funded projects involve the use of animals and makes the information publicly accessible. Such a plan should address any security concerns and the steps that could be taken to mitigate these risks. The Committee recognizes that NIH currently collects such information with every grant application using the Research & Related Other Project Information form, which asks applicants to answer “Yes” or “No” to the question “Are Vertebrate Animals Used?” NIH’s plan should ensure that the answer to that question for each funded project is searchable via the Expenditures and Results module of NIH’s Research Portfolio Online Reporting Tools website as many other categories of information are.

*Communications with the Appropriations Committee.*—The Committee notes that in the past 2 years its primary liaison with NIH has changed five times, disrupting the flow of information and responsiveness to its interests and concerns. The Committee directs NIH to consult with it before NIH proceeds with any further plans to change liaisons. In addition, the Committee expects NIH to promptly notify it of any barriers to its ability to comply with the directives included in this report within 15 days of its public release. Finally, the Committee directs NIH to provide an Excel

spreadsheet reflecting the fiscal year 2022 enacted level and fiscal year 2023 request by IC and each initiative at the time it transmits the fiscal year 2023 CJ.

*COVID-19's Impact on Research.*—During the pandemic, the U.S. research enterprise has suffered greatly, particularly impacting early career researchers, putting at risk U.S. leadership on the global research and innovation landscape. The changing environment brought on by COVID-19 resulted in halted research projects and uncertain career prospects, not only for this generation, but also future generations of scientists and the overall U.S. research pipeline. The Committee commends NIH for allowing those with fellowship and career development awards to apply for funded and no-cost extensions but is concerned about the possibility of uneven levels of support between ICs, unclear qualifying standards and demand that may exceed resources. To address these concerns, the Committee encourages NIH to develop and disseminate a standardized approach to support eligible investigators across Institutes and Centers and provides funding to enable support of qualified extensions. The Committee encourages the NIH to provide funding, when possible, to continue to support these researchers that have been impacted by the pandemic, with a particular focus on the needs of early career researchers. Additionally, the Committee directs NIH to provide the House and Senate Appropriations Committees a report, no later than 120 days after enactment of this Act that details the needs of pandemic-affected researchers funded by NIH.

*Cybersecurity.*—The Committee provides an increase of \$100,000,000 to strengthen cybersecurity at NIH, consistent with the fiscal year 2022 budget request.

*Diversity of the Biomedical Research Workforce.*—The Committee is concerned with the impact of COVID-19 on the diversity of the biomedical research workforce, particularly early stage and midcareer investigators who are women and women of color. The Committee directs NIH to study, to the extent possible, the race, ethnicity, age, gender, disability status and career stage breakdown of the impact of COVID-19 on participation in the workforce by monitoring the types of awards received from and awarded to institutions for 2 years beginning 90 days after enactment of this Act. If pre-pandemic data on these demographics are not available, the Committee directs the NIH to collect them going forward. If the data demonstrate that fewer women are applying for grants, then it is imperative that NIH take steps to address this disparity. The Committee requests a status update from NIH on this research in the fiscal year 2023 CJ, as well as the steps being taken to maintain the diversity of the research workforce.

*Dual Purpose/Dual Benefit Research.*—The Committee strongly urges a continued partnership between NIH, NIFA and the other relevant 115 Federal research and development agencies to develop a next generation interagency program using agriculturally important large animal species. Domesticated animals are recognized as a strongly relevant dual purpose model that can be employed to understand the complex problems/challenges in both agriculture and biomedicine. In the past year, we have seen the benefit of these animal models related to development of new gene and cell-based

therapies to treat or prevent disease/disorders and understand influenza and other infectious diseases such as COVID-19, and in particular these areas would be strengthened by a continuing partnership between NIH, NIFA, and other Federal research agencies. The Committee expects NIH to continue this important cooperative partnership program to further strengthen ties between human medicine, veterinary medicine, and animal sciences, with the goal to improve animal and human health and provide enhanced applicability and return on investment in research.

*Duchenne Muscular Dystrophy.*—Duchenne muscular dystrophy is a severe form of muscular dystrophy for which there is no cure and for which life expectancy is in the second or third decade. The Committee urges the NIH to establish a framework for data-sharing and sharing of specimens generated or collected within 6 months of completion of any NIH-funded clinical study. The Committee also urges NIH to support methodological research on challenges related to gene therapies, such as enabling delivery to individuals with neutralizing antibodies to viral vectors, manufacturing supply to ensure all patients can receive treatment, and minimizing potential life-threatening immune response to high viral doses.

*7q11.23 Duplication Syndrome.*—Duplication 7 syndrome is a rare chromosomal abnormality and those affected by this chromosomal duplication are likely to experience severe behavioral and developmental disabilities requiring consistent medical treatments and therapies. NIH is strongly encouraged to prioritize funding to expand research on rare genetic and chromosomal abnormalities such as 7q11.23 duplication syndrome. The Committee requests an update on these activities in the fiscal year 2023 CJ.

*Early Career Pediatric Researchers.*—The Committee recognizes the importance of awards intended to support training of early-stage pediatric researchers, including physician scientists. The Committee is also aware of the negative impact the ongoing COVID-19 pandemic has had on research career trajectories and that these challenges are particularly burdensome on early-career researchers who have yet to achieve research independence. The Committee commends NIH for allowing holders of fellowship and career development awards to apply for funded and no-cost extensions but is concerned about the possibility of uneven levels of support between Institutes and Centers, unclear qualifying standards and demand that may exceed resources. To address these concerns, the Committee encourages NIH to develop and disseminate a standardized approach to support eligible investigators across ICs and provides funding in this bill to enable funding of extensions as appropriate. The Committee also encourages NIH to develop a funding opportunity for a trans-NIH early career development award targeted to investigators working in pediatrics that would build upon the Next Generation Researchers Initiative and other initiatives and to provide an update on these efforts to Congress within 180 days of enactment of this Act.

*Eating Disorders.*—The Committee commends NIH for supporting multi-Institute research on the chronic, fatal, and serious mental illnesses encompassing eating disorders. The Committee encourages NIH to increase support for eating disorders research and

encourages relevant Institutes and Centers, including the NIMH, NIMHD, NICHD, and NIDA to collaborate to address research gaps in genetics, prevention, diagnosis, and treatment of eating disorders.

*Environmental Influences on Child Health Outcomes [ECHO].—*The Committee provides \$180,000,000, the same level as fiscal year 2021, for the ECHO program. ECHO currently funds the Navajo Birth Cohort Study. This funding will allow the program to continue. The Committee encourages OD to consider expanding the study to include a larger representation of indigenous children into the national cohort. This would allow for a better understanding of the impacts of environmental exposure in these unique populations, benefiting the current goals of ECHO-wide efforts as well as indigenous communities across the U.S. OD is directed to provide an update in the fiscal year 2023 CJ on progress made by ECHO-funded research.

*Federal Advisory Committees Transparency Initiative.*—The Committee recognizes that advisory committees fill an important role in advising NIH on major decisions on plans and policies and it is vital that all NIH advisory committees operate in a transparent way. The Committee recognizes that the Literature Selection Technical Review Committee [LSTRC], in response to the Committee's concerns, has taken steps to improve the transparency of its procedures and launched an updated website to provide information including the methodology and timeline for LRSTC reviews. The Committee encourages NIH to continue its commitment to transparency so that the public can understand how recommendations are made.

*Firearm Injury and Mortality Prevention.*—In July, GAO reported that gun violence accounts for about 30,000 hospital stays and about 50,000 emergency room visits annually. More than 15 percent of firearm injury survivors are readmitted at least once after initial treatment, costing an additional \$8,000 to \$11,000 per patient. Because most of the victims are low-income, the burden falls on safety-net programs like Medicaid, generating healthcare costs that far exceed \$1,000,000,000 annually. GAO's findings come on the heels of reports that 2020 was the deadliest year for gun violence in decades, with nearly 20,000 deaths, more than 39,000 gun injuries, and 24,000 deaths by suicide with a gun. To understand how society might do a better job of preventing gun-related injuries and deaths, the recommendation includes \$25,000,000, an increase of \$12,500,000 above the fiscal year 2021 enacted level and consistent with the budget request, for research on firearm injury and mortality prevention. Given violence and suicide have a number of causes, the recommendation expects NIH to take a comprehensive approach to studying these underlying causes and evidence-based methods of prevention of injury, including crime prevention. All grantees under this section will be required to fulfill requirements around open data, open code, pre-registration of research projects, and open access to research articles consistent with the National Science Foundation's open science principles. The Committee directs NIH and CDC to coordinate their research efforts and to collaborate with the National Institute of Justice to compile, share, and improve firearm violence data. Further, the Committee directs

NIH to report to the Committee within 60 days of enactment of this act on implementation schedules and procedures for grant awards, which strive to ensure that such awards support ideologically and politically unbiased research projects.

*Foreign Influence.*—The Committee continues to be concerned by foreign-principally Chinese-efforts to entice NIH-supported researchers to steal intellectual property. To date, NIH and its law enforcement partners have confirmed cases of undisclosed research relationships at dozens of universities and research institutions. To support NIH's efforts to expeditiously complete foreign influence investigations, the recommendation includes an increase of \$2,500,000 for the Office of Extramural Research. The Committee directs NIH to provide quarterly briefings on the progress of these investigations, including the affected scientists and institutions.

*Gabriella Miller Kids First Research Act.*—The Committee includes \$12,600,000 to continue its support for the Gabriella Miller Kids First Pediatric Research Program.

*Gene-Environment Interactions in Neurodegenerative Disorders in the Diverse Populations of African Americans and Latinos.*—In the context of NIH's robust neurological disease research portfolio, the Committee commends the leadership of NIH in advancing the relevant objectives of the 21st Century Cures Act (Public Law 114–255) and the BRAIN Initiative. The Committee is concerned and recognizes the need to better understand the interactions between genetic and environmental factors, in particular with older and diverse populations of African Americans and Latinos. The Committee encourages NIH to accelerate collaborative research across relevant Institutes and Centers and the research community to address the goal of determining the role of the interaction between environmental exposures to toxic chemicals and genetics and their impact on neurodegenerative disorders in diverse populations of African Americans and Latinos, to allow for earlier diagnosis and subsequent treatment to arrest the progression of these devastating neurodegenerative disorders.

*Harassment Policies.*—The Committee is deeply frustrated by NIH's failure to implement its direction to address harassment in extramural research settings. In the statement of managers accompanying the Further Consolidated Appropriations Act, 2020 (Public Law 116–94), the agreement directed NIH “to require institutions to notify the agency when key personnel named on an NIH grant award are removed because of sexual harassment concerns.” NIH partially complied in its June 11, 2020, clarification of its “Guidance Regarding Change of Status, Including Absence of PD/PI and Other Key Personnel Named in the Notice of Award” [NOT-OD-20–124], but did not require its grantees to notify it when key personnel are removed for concerns of harassment. When confronted with this disconnect, NIH leaders were surprised that the Committee expected it to require grantees to provide notification, despite the Committee's clear direction. In response, the Statement of Managers agreement accompanying the Consolidated Appropriations Act, 2021 (Public Law 116–260), directed NIH to revise its guidance within 30 days of enactment to make clear that grantees must identify any changes to key personnel on an award that are related to concerns about harassment. Despite the Committee's

strong interest in this issue, NIH did not inform the Committee until January 2021 that the HHS Office of General Counsel had at some point taken the position that requiring grant recipients to report to NIH when their personnel actions relate to harassment would amount to a legislative rule and would need to be imposed through notice-and-comment rulemaking under the Administrative Procedure Act. The Committee has included a new general provision to require institutions that receive NIH funding to notify the agency when key personnel are removed from their position for harassment.

*Headache Disorders.*—The Committee urges NIH to consider the burden of a disease when setting priorities and developing strategic plans across its Institutes and Centers. Migraine is the 11th leading cause of US and 14th of global disability in terms of DALYs (Disability Adjusted Life Years), affecting more than 17 percent of Americans. The statutory language providing authority for HEAL Initiative appropriations specifically cites the necessity of attending to disease burden in prioritizing HEAL research programs [42 U.S. Code § 284q-1]. The Committee therefore encourages NIH to consider HEAL Initiative support of fundamental, translational, clinical, and social science research on headache disorders. HEAL has invested in resources and infrastructure developed to support pain research across all pain conditions and should continue to encourage application submissions on headache disorders, as well as those on pain conditions for which opioid use and prescribing is highly prevalent. Headache disorders research supported through the HEAL initiative should supplement, not supplant, current funding for headache disorders research at the NIH. NIH should continue its practice of using appropriate metrics to make funding decisions on grant proposals, as this approach has led to nearly doubling of the funding for headache disorders between 2016 and 2019. These metrics should consider prioritization of underfunded research areas, merit based on peer review, new opportunities to advance the field, and recognition of need to expand the research workforce.

*The HEALthy Brain and Child Development [HBCD] Study.*—The Committee recognizes and supports the HBCD Study, which will establish a large cohort of pregnant women from regions of the country significantly affected by the opioid crisis and follow them and their children for at least 10 years. This knowledge will be critical to understanding typical brain development and how pre- and postnatal exposure to opioids and other substances or adverse environments affect brain development and other outcomes, including risk for future substance use, mental health disorders, and other behavioral and emotional difficulties and disorders. The Committee recognizes that the HBCD Study is supported in part by the NIH HEAL Initiative, and NIH Institutes, Centers, and Offices [ICOs], including OBSSR, ORWH, NIMHD, NIBIB, NIEHS, NICHD, NINDS, NIAAA, NIMH, and NIDA, and encourages other NIH ICOs to support this important study.

*Hepatitis B.*—The Committee recognizes the estimated \$4,000,000,000 of annual medical costs associated with the care and treatment of those infected with the hepatitis B virus and urges NIH to redouble its efforts to identify more effective treatments for the disease. While there are treatments available to con-

trol HBV, they must be taken for years if not for life. Without treatment, 1 in 4 of those infected will die prematurely from cirrhosis, liver failure and/or liver cancer. This serious public health threat results in over 800,000 worldwide deaths each year, making it the 10th leading cause of death in the world. The Committee commends NIH for its support in the development of the 2019 Strategic Plan for Trans-NIH Research to Cure Hepatitis B and urges NIH to help implement the plan by issuing new targeted calls for research. The Committee requests that NIH support an update of the Strategic Plan for Trans-NIH Research to Cure Hepatitis B to be completed before the end of fiscal year 2022 and submit within 180 days of enactment of this bill into law, a specific plan to pursue a cure for hepatitis B in coordination with the Trans-NIH Hepatitis B Working Group.

*INCLUDE Initiative.*—The Committee includes \$65,000,000, the same as the fiscal year 2021 enacted level, within OD for the INCLUDE Initiative. The Committee is pleased that this multi-year, trans-NIH research initiative has enabled significant advances in understanding immune system dysregulation, new research into the connection with Alzheimer’s disease, and the creation of a national Data Coordinating Center, all of which may dramatically improve the health and quality of life of individuals with Down syndrome as well as millions of typical individuals. The Committee encourages NIH to pursue some of the most neglected areas of research and care such as health disparities for African Americans with Down syndrome, mosaic Down syndrome, those with the dual diagnosis of Down syndrome and autism, and new studies on metabolic dysregulation. The Committee requests the Director provide an updated plan within 60 days of enactment of this act that includes a timeline, description of potential grant opportunities, and deadlines for all expected funding opportunities so that young investigators and new research institutions may be further encouraged to explore research in this space. This plan should also incorporate and increase pipeline research initiatives specific to Down syndrome.

*Inflammatory Bowel Disease [IBD].*—The Committee is aware of current and emerging NIH priorities focused on nutrition including the recently finalized Strategic Plan for NIH Nutrition Research and the Common Fund’s Nutrition for Precision Health initiative. Given these priorities, the Committee encourages NIH coordinate across ICs focused on nutrition research to support research to understand the relationship between food and immune-mediated conditions including IBD. This may include research on the development of evidence-based anti-inflammatory diets and the roles such diets can play in managing IBD and other immune-mediated conditions.

*Investigator Burden and Spending Priorities.*—According to a 2018 Federal Demonstration Partnership Faculty Workload Survey completed in 2020, despite the legislative mandates in the 21st Century Cures Act (Public Law 114–255) to reduce investigator regulatory burden, investigator regulatory burden has increased to almost half (44.3 percent) of a researcher’s allocated time for their research projects. The Committee is concerned with the lack of progress at the NIH on implementation, per the legal requirements

of the law, of concrete steps to reduce investigator burden. Further, the Committee is concerned that while NIH's budget is routinely being increased every fiscal year, that money may not be spent on actual research as much as it should be. The Committee therefore encourages NIH to provide, within 120 days of the enactment of this act, a detailed list of steps that NIH is planning to implement before the next fiscal year to reduce investigator burden.

*Long Haul COVID-19.*—The Committee recognizes that many individuals previously infected by SARS-CoV-2 continue to face prolonged health consequences, and that the full range of long-term effects of an acute SARS-CoV-2 infection is not yet known. To that end, the Committee supports the NIH's ongoing longitudinal study [RECOVER] and encourages the NIH to establish a study meta-cohort that collectively offers the necessary diversity, geographic reach, and age range, to form a representative and inclusive national cohort that will inform our understanding of the various manifestations of PASC and its clinical course(s). So that findings are generalizable to the U.S. population affected by SARS-CoV-2 infection, the study should have diversity of enrollees in terms of gender, age, race, ethnicity, geography, comorbidities, and under-represented populations. Toward this end, the study should enroll from special populations such as children, the elderly, and pregnant women; identify relevant comorbidities; and include multidisciplinary assessments for evidence of tissue injury, organ system dysfunction, and other relevant conditions (e.g., immunologic, pulmonary, cardiac, neurologic, metabolic, and mental health). The NIH shall make public a summary of the status of the RECOVER Initiative and describe progress made at least every 6 months and, as appropriate, summarize any findings from the study.

*Lung Cancer.*—The recent decline in cancer mortality that has been fueled by progress in lung cancer is directly attributable to NIH-funded research. Advances in the understanding of the molecular underpinnings of lung cancer and the identification of additional oncogene driver subsets has led to rapid development of new targeted therapies, which together with efforts to broaden uptake of comprehensive biomarker testing, has the potential to deliver the promise of precision medicine to more patients than ever before. The Committee encourages NIH to continue supporting important research across each of these areas, to broaden the base of lung cancer survivors across different disease types, including Small Cell Lung Cancer.

*Maternal Mental Health.*—Pregnancy-related mortality in the U.S. has steadily increased from 7.2 deaths per 100,000 in 1987 to 17.3 deaths per 100,000 in 2017. African American women across the socio-economic spectrum are dying from preventable pregnancy-related complications at three to four times the rate of non-Hispanic white women, while the death rate for African American infants is twice that of infants born to non-Hispanic white mothers, according to the CDC. In addition, maternal mental health disorders and associated symptoms are common, and cases often go unreported, misdiagnosed, and untreated. The societal cost of untreated perinatal mood and anxiety disorders [PMADs] can reach \$14,200,000,000, and those with PMADs have a higher risk of suicide, cesarean deliveries, and work absenteeism and presenteeism.

The COVID-19 pandemic has exacerbated the mental and physical toll on pregnant and postpartum mothers. The Committee recognizes the evidence demonstrating how maternal physical and mental health has far-reaching effects on the physical, intellectual, and emotional development of women and children and encourages continued research to address these issues. The Committee requests the NIH to provide a report within 180 days of enactment on the number and topics of research grants awarded over the past three fiscal years on maternal health and infant mortality, including maternal mental health.

*Mucopolysaccharide [MPS] Diseases.*—MPS diseases are inherited, with death occurring for many in early childhood. This systemic disease causes progressive damage to the bones, heart, respiratory system, and brain. The Committee continues to urge NIH, NCATS, and NINDS to put a high priority on better understanding and treating MPS and Mucopolipidosis diseases. The Committee commends NIH for allocating funds to discover, develop, define, and make available for research animal models of human genetic disease. The Committee encourages expanded research of treatments for neurological, inflammatory, cardiovascular, and skeletal manifestations of MPS, with an emphasis on gene therapy. The Committee thanks NINDS, NIDDK, and NCATS/ORDR for again funding the Lysosomal Disease Network through the Rare Disease Clinical Research Network and for funding lysosomal research meetings. The Committee encourages the NIH, NCATS, and NINDS to increase funding to grantees to incentivize MPS research, particularly given the aging and small population of current researchers. Understanding the manifestations and treatments of both the skeletal and neurological disease continues to be the greatest areas of unmet need.

*National Commission on Lymphatic Diseases.*—The Committee continues to strongly encourage the NIH Director to continue to engage with relevant Institutes and Centers to advance research on the lymphatic system and lymphatic diseases, provide a framework for collaboration, and set the lymphatic research agenda by engaging the research community and stakeholder organizations to identify future research opportunities in lymphatic diseases.

*Neurofibromatosis [NF].*—The Committee supports efforts to increase resources for NF research and treatment at multiple Institutes, including NCI, NINDS, NIDCD, NHLBI, NICHD, NIMH, NCATS, and NEI. Children and adults with NF are at elevated risk for the development of many forms of cancer, as well as deafness, blindness, developmental delays and autism. The Committee encourages NCI to continue to support a robust NF research portfolio in fundamental laboratory science, patient-directed research, and clinical trials focused on NF-associated benign and malignant cancers. The Committee also encourages NCI to continue to support preclinical research and clinical trials. Because NF can cause blindness, pain, and hearing loss, the Committee encourages NEI, NINDS, and NIDCD to continue to aggressively fund fundamental basic science research on NF relevant to restoring normal nerve function. Based on emerging findings from numerous researchers worldwide demonstrating that children with NF are at significant risk for autism, learning disabilities, motor delays, and attention

deficits, the Committee encourages NINDS, NIMH, and NICHD to continue to support investments in laboratory-based and patient-directed research investigations in these areas. Since NF2 accounts for some genetic forms of deafness, the Committee encourages NIDCD to continue to support its investment in NF2-related research. NF1 can cause vision loss due to optic gliomas. The Committee encourages NEI to support NF1-focused research on optic gliomas and vision restoration.

*Office of Behavioral and Social Sciences Research [OBSSR].*—The Committee commends the OBSSR efforts to coordinate and promote basic, clinical, and translational research in the behavioral and social sciences to support the NIH mission. As multiple Surgeons General and the National Academy of Medicine have declared that most health problems facing the nation have significant behavioral components, the Committee strongly supports the continued strengthening of the behavioral science enterprise at NIH and urges OBSSR funding be increased to accomplish this mission. In this regard, the Committee is pleased that an NIH working group has been established to review how better to integrate and realize the benefits of overall health from behavioral research at NIH. The Committee encourages OBSSR activities aimed at strengthening these sciences by enhancing trans-NIH investments in longitudinal datasets, technology in support of behavior change, innovative research methodologies, and integration of behavioral and social sciences in initiatives across the NIH. In partnership with other ICs, OBSSR co-funds highly rated grants that these Institutions and Centers cannot fund alone.

*Office of Research on Women's Health [ORWH] Funding.*—The Committee recommends \$57,385,000 for ORWH, an increase of \$5,905,000 above the fiscal year 2021 enacted level and \$5,082,000 above the budget request. This office ensures women's health research and research on the biological and sociocultural influence of sex and gender are included within the larger NIH scientific framework. Congress recognizes that ORWH is the first public health service office to officially promote women's health research within and beyond the NIH scientific community. ORWH provides critical leadership to develop research programs like the Specialized Centers of Research Excellence [SCORE] on Sex Differences, a program designed to expedite the development and application of new knowledge to human diseases that affect women, to learn more about the etiology of these diseases, and to foster improved approaches to treatment and/or prevention. The Committee applauds ORWH's effort to encourage research across many scientific disciplines to examine how sex and gender factors influence health and contribute to various diseases. The increase provided herein should also expand the number of sites in the Building Interdisciplinary Research Careers in Women's Health [BIRCWH] program, an initiative that aims to increase the number and skills of investigators who conduct research on sex and gender influences on health and disease. Within the overall funding level, the Committee has included an additional \$2,500,000 for the BIRCWH program to fund additional BIRCWH fellows at existing sites with a goal of increasing the diversity of the scholars, sites, and research areas supported by the program, and to expand the number of sites

to increase the number and skills of investigators who conduct research on sex and gender influences on health and disease. ORWH is encouraged to expand the program to less-resourced institutions, such as HBCUs, tribal colleges, and Institutions of Emerging Excellence. These funds would support additional researchers focused on women's health and sex differences, which are priority research areas, as well as expand the program's work in the reproductive sciences. The Committee recognizes the effectiveness of the BIRCWH program, which is a mentored career-development program designed to connect junior faculty and senior faculty with shared interests.

*Office of the Chief Officer for Scientific Workforce Diversity.*—The Committee provides \$22,190,000 to the Office of the Chief Officer for Scientific Workforce Diversity, \$16,000,000 above the fiscal year 2021 enacted level and consistent with the fiscal year 2022 budget request, to lead and coordinate efforts to address racism within the NIH and broader biomedical research community.

*Osteopathic Medical Schools.*—The Committee supports access to NIH research funding for osteopathic medical schools. The Committee is concerned by the historical disparity in NIH funding as osteopathic professionals receive only 0.1 percent of NIH grants, yet osteopathic medicine is one of the fastest growing healthcare professions in the country and osteopathic medical schools educate 25 percent of all medical students. The Committee understands that osteopathic medical students receive 200 hours of additional training in the musculoskeletal system and learn the value of osteopathic manipulative treatment as a non-pharmacological alternative to pain management. Over half of osteopathic physicians practice in the primary care specialties of family medicine, internal medicine, and pediatrics, and a disproportionate share of osteopathic medical graduates locate in rural and underserved areas. The Committee recognizes that increased access to research funding for the osteopathic profession will significantly bolster the NIH's capacity to support robust recovery from the COVID-19 pandemic, address health disparities in rural and medically-underserved populations, and advance research in primary care, prevention, and treatment. The Committee urges NIH to report to the Committee on the current status of NIH funding to colleges of osteopathic medicine and representation of doctors of osteopathic medicine on NIH National Advisory Councils and standing study sections in the fiscal year 2023 CJ.

*Parkinson's Disease [PD] and Dementia.*—The Committee recognizes that although Parkinson's is often thought of only as a movement disorder, most PD patients also develop dementia; common symptoms include difficulty with problem solving, speed of thinking, memory and other cognitive skills. Because people with PD usually develop these symptoms several years after their diagnosis of Parkinson's, PD represents an under-explored opportunity to study the onset and progression of dementia. Therefore, the Committee strongly urges NIA and NINDS to put a higher priority on PD, both before and after onset of dementia, within their overall dementia research portfolios. The Committee requests an update on these activities in the fiscal year 2023 CJ.

*Pediatric Clinical Trials Authorized under Best Pharmaceuticals for Children Act.*—The Committee directs that funding authorized by the Best Pharmaceuticals for Children Act (Public Law 107–109) include research to prepare for and conduct clinical trials.

*Pediatric Research.*—The Committee encourages NCI and NIH to continue to prioritize pediatric cancer research. The Committee recognizes NCI's efforts to implement sections of the Childhood Cancer STAR Act (Public Law 115–180), develop a new Childhood Cancer Data Initiative, and continue to support and expand new and innovative research efforts to advance progress for children with cancer. These include the Pediatric MATCH precision medicine trial and a pediatric immunotherapy translational science network established through the Cancer Moonshot, in addition to NCI's long-standing support for the Children's Oncology Group, the Childhood Cancer Survivor Study, the Pediatric Preclinical Testing Consortium, and several other critical programs. The Committee also commends NIH for its efforts to coordinate pediatric research across its Institutes and Centers through the recently established Trans-NIH Pediatric Research Consortium. The Committee understands NCI participates in the Consortium, and that childhood cancer research is an important part of the pediatric research portfolio across NIH. The Committee requests an update in the fiscal year 2023 CJ on opportunities to enhance childhood cancer research efforts, including coordination efforts already underway through the Trans-NIH Pediatric Research Consortium.

*Polycystic Ovary Syndrome [PCOS].*—PCOS affects up to 15 percent of women and is a significant risk factor for multiple cardio-metabolic conditions, such as type 2 diabetes, lipid disorders, high blood pressure, obesity, sleep disorders, and others which may significantly increase risk for adverse COVID–19 outcomes. Emerging data also link the risk of severe COVID–19 with certain factors such as low vitamin D levels, hyperandrogenism, inflammation, and ethnicity predisposition, all of which are associated with PCOS. The Committee encourages NHLBI, NICHD, and NIDDK to support research investigating the risk of severe SARS–CoV–2 infection in the PCOS patient population and the strong overlap of risk factors for both worse PCOS cardio-metabolic manifestations and severe COVID–19. Findings should be disseminated to healthcare providers, PCOS patients, the general public, as well as highlighted for clinical practice. The Committee also encourages NIH to report on research that has been conducted on PCOS and its impact on cardio-metabolic health to date in the fiscal year 2023 CJ.

*Postural Orthostatic Tachycardia Syndrome [POTS].*—SARS–CoV–2 has impacted more than 40.0 million Americans to date. Approximately one-third of individuals infected with SARS–CoV–2 are developing persistent symptoms lasting longer than 1 month, which the NIH has referred to as post-acute sequelae of SARS–CoV–2 [PASC]. It has been noted that a significant portion of individuals with PASC are experiencing moderate to severe autonomic nervous system dysfunction 6 months after the onset of SARS–CoV–2 infection. Scientific reports suggest that the most common type of autonomic nervous system dysfunction developing in PASC patients is POTS. POTS is a debilitating autonomic nervous system

condition that impacted an estimated 1.0 million to 3.0 million Americans before the COVID-19 pandemic, and it is frequently triggered by a viral infection. There are no FDA approved treatments for POTS or PASC associated autonomic nervous system dysfunction at this time, and patients suffer with significant disability and a poor quality-of-life. The Committee encourages NIH to ensure that the \$1,150,000,000 investment Congress has provided to NIH for PASC research is used, in part, to identify how viruses like SARS-CoV-2 result in autonomic nervous system dysfunction, such as POTS, and how we can most effectively treat PASC associated autonomic nervous system dysfunction, including PASC associated POTS. The Committee encourages NIH to leverage the expertise of research centers that have previously studied post-viral POTS in pursuing these important research questions.

*Prenatal Opioid Use Disorders and Neonatal Abstinence Syndrome [NAS].*—The Committee recognizes the growing burden of NAS and the healthcare costs associated with it. The Committee is aware of the need for more information regarding long-term health and developmental outcomes related to NAS, the wide variation in clinical practice and health systems support, as well as the challenges associated with post-discharge care. The Committee encourages NIH to coordinate with other agencies at HHS to support additional research on prevention, identification, and treatment of prenatal opioid exposure and NAS, including the best methods for screening and treating pregnant women for opioid use disorder and the best methods for screening for NAS. Additionally, the Committee encourages NIH to build on the ACT NOW study to enhance understanding of the impact of pharmacological and non-pharmacological treatment techniques on costs and outcomes in the short-term and longitudinally. The Committee further encourages NIH to coordinate with other agencies at HHS to support research on innovative care models to optimize care and long-term outcomes for families.

*Preventing Chronic Disease in Rural Areas.*—The Committee urges NIH support research to improve outcomes for rural patients with chronic illnesses and improve abilities of families of these patients to support their treatments.

*Primary Mitochondrial Disease Research.*—The Committee is aware that NIH has spearheaded a number of initiatives to identify new mitochondrial disorders, discover the linkages between mitochondrial disorders, and translate advances in mitochondrial research to treatments, cures, and other medical interventions for mitochondrial disorders and their secondary diseases, such as Alzheimer's disease, Parkinson's disease, and cancer. Given the advancements seen through peer-reviewed research into mitochondrial disorders at several academic sites across the nation, the Committee encourages the NIH to increase its funding of primary mitochondrial disease research and requests the agency provide an update on these efforts within 180 days of enactment of this act.

*Radiopharmaceuticals.*—The Committee encourages NIH to explore the use of new isotopes and novel applications for radiopharmaceuticals and leverage next-generation advanced manufac-

turing techniques for isotope production being made by DOE-funded research universities and National Laboratories.

*Research Cohort Diversity.*—The Committee recognizes the benefits of broad and inclusive participation in biomedical research for increasing health equity. Research cohorts of diverse genetic ancestry are especially important in genetics and genomics research, where inclusion of a wide range of individuals and communities deepens our understanding of how variation in the human genome interacts with social factors to contribute to health and disease. Sociodemographically diverse research cohorts also ensure that benefits from the health advances accrued from biomedical research are more equitably distributed. The Committee applauds NIH's efforts to expand research cohort diversity and encourages these efforts to continue in fiscal year 2022. OD should continue to work with ICs across NIH to prioritize biomedical research participation of individuals from underrepresented populations and communities.

*Research Infrastructure.*—Much of the Nation's biomedical research infrastructure, including laboratories and research facilities at academic institutions and nonprofit research organizations, is outdated or insufficient. For taxpayers to receive full value from their considerable investments in biomedical research, scientists must have access to modern research facilities. Therefore, \$60,000,000, an increase of \$10,000,000 compared to the fiscal year 2021 enacted level, is provided for grants to public, nonprofit, and not-for-profit entities to expand, remodel, renovate, or alter existing research facilities or construct new research facilities as authorized under 42 U.S.C. section 283k, including animal facilities. The Committee urges NIH to consider recommendations made by the NIH Working Group on Construction of Research Facilities, including making awards that are large enough to underwrite the cost of a significant portion of newly constructed or renovated facilities. The Committee further continues to direct that at least 25 percent of the funding be awarded to Institutions of Emerging Excellence.

*Research Involving Enhanced Potential Pandemic Pathogens.*—Understanding the origin of pandemics is important for identifying potential sources of future epidemics or pandemics. The possibility that the SARS-CoV-2 virus leaked from a laboratory cannot be excluded, though there is no evidence to suggest that it was engineered. The Committee notes that research involving enhanced potential pandemic pathogens is critical to public health preparedness, but such work must be conducted safely and securely, no matter where in the world it is conducted. The Committee supports a robust evaluation of whether the HHS Framework for Guiding Funding Decisions about Proposed Research Involving Enhanced Potential Pandemic Pathogen Care and Oversight [P3CO] has achieved its intended purpose and whether the scope of research it covers is sufficient. The Committee directs HHS and NIH to convene the National Science Advisory Board for Biosecurity [NSABB] and conduct such a review. Further, the Committee strongly encourages NIH to suspend funding for any and all existing and future studies under the Framework that are being conducted or proposed to be conducted in settings outside the United States until such time as the NSABB review of that process is complete.

*Research with Non-Human Primates.*—The Committee recognizes the important role that many years of non-human primate research played in the development of COVID–19 vaccines, but stresses its longstanding contribution to virtually all areas of biomedical research. Research with these unique models continues to make irreplaceable contributions to advancing science’s understanding of diseases and disorders afflicting humans and animals. These models are essential in the discovery and evaluation of new therapeutics before they go to clinical trials in human and animal patients. It was only through years of using non-human primate models that pharmaceutical companies were able to study and bring to market effective COVID–19 vaccines to respond to the ongoing public health emergency quickly. Further, without non-human primate models, scientists cannot work on currently incurable brain diseases that affect memory, judgment, social and emotional behaviors, movement and perceptual deficits, and diseases caused by stress, trauma, and substance use. The unprecedented success of non-human primate models has hindered ongoing biomedical research in many fields. These shortages, if not mitigated, will slow basic science and discovery of treatments and cures for neurological conditions, including Alzheimer’s disease, Parkinson’s disease, and substance use disorder. Consistent with the President’s budget, the Committee provides \$20,000,000 for non-human primate infrastructure. The Committee asks NIH to report to the Committee within 90 days of enactment of this act on barriers to non-human primate acquisition and its impact on the biomedical research it funds. Further, the Committee directs NIH, in coordination with CDC and FDA, to provide a report to the Committee no later than 1 year after enactment that outlines a Federal plan to ensure the long-term availability of non-human primates to U.S. researchers.

*Research Transparency.*—As demonstrated over the past several years, the Committee remains committed to funding NIH research and ensuring that our nation’s researchers, particularly our young scientists, have the support to make the scientific breakthroughs that may transform healthcare. However, it is critical that NIH can ensure funds are used for the best possible research that fulfill the core research mission of NIH. Over the last 6 fiscal years, Members have provided several examples of questionable spending stemming from research grants awarded by NIH, showing the need for enhanced oversight in the review and approval process. Therefore, NIH is directed to justify, in writing made available on a publicly accessible website, that each grant or agreement promotes efforts to seek fundamental knowledge about the nature and behavior of living systems and/or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

*Sickle Cell Trait.*—An estimated 1,000,000–3,000,000 Americans are living with sickle cell trait, the single gene mutation for sickle cell disease. While most people with sickle cell trait have no symptoms or health problems associated with the trait, there is evidence to suggest that sickle cell trait is associated with certain conditions and complications, including a rare form of kidney cancer. In a 2020 report, the National Academies of Science, Engineering and Medicine recommended that NIH conduct research to elucidate the pathophysiology of sickle cell trait. The Committee encourages

NHLBI, NIDDK, and NHGRI to collaborate on research on sickle cell trait.

*Spina Bifida.*—The Committee encourages NIA, NIDDK, NICHD, and NINDS to study the causes and care of the neurogenic bladder and kidney disease in order to improve the quality of life of children and adults with Spina Bifida; to support research to address issues related to the treatment and management of Spina Bifida and associated secondary conditions, such as hydrocephalus and sudden death in the adult Spina Bifida population; and to invest in understanding the myriad co-morbid conditions experienced by individuals with Spina Bifida, including those associated with both paralysis and developmental delay; and report out by Institute research findings on Spina Bifida and issues related to it. The Committee supports the specific efforts of NICHD to understand early human development; set the foundation for healthy pregnancy, and lifelong wellness of women and children; and promote the gynecological, andrological and reproductive health for people with Spina Bifida. Additionally, NIH is encouraged to identify sensitive time periods to optimize health interventions; improve health during transition from adolescence to adulthood; and ensure safe and effective therapeutics and devices for adults as well as children.

*State of Bereavement Care.*—The Committee is aware of research indicating that individuals and families suffer severe health, social, and economic declines following the death of a loved one—be it a child, sibling, spouse, or parent. The Committee encourages OMH, ACF, CDC, CMS, HRSA, IHS, NIH, and SAMHSA to examine their activities to advance bereavement care for families, including prevalence of bereavement events and the details of those events (what relationships are impacted, how the loved one died and at what age), risk factors and associated health events or outcomes, biological or physiological changes in wellbeing, and what interventions, or programs could help functional coping or adaptive processing.

*Strategic Plan.*—The Committee recognizes that NIH should carefully consider national security considerations when developing and executing their NIH-wide Strategic Plan.

*Temporomandibular Disorders [TMD].*—The Committee notes that millions of Americans suffer from TMDs, and that care is often fragmented due to the complexity of the condition. The Committee strongly encourages OD to establish a National Collaborative Research Consortium for TMDs to coordinate, fund, and translate basic and clinical research. Research priorities may include improvements to clinical outcomes; orofacial pain and gender; population-based research to further understand the burden and costs of TMDs; comparative effectiveness research on TMD treatments; and artificial intelligence and novel data approaches. The Committee urges NIH to prioritize collaboration in addressing TMDs, and include all necessary NIH ICs, Offices, and other Federal partners in the Consortium.

*THC Potency.*—Given the increasing number of individuals using high potency cannabis in the United States and the potential adverse public health effects associated with its use, the Committee encourages NIH to support research on the short- and long-term impacts associated with high potency cannabis that could inform

the establishment of THC limits in commercially-available marijuana products.

*Trans-NIH Pediatric Research Consortium [N-PeRC].*—The Committee is aware of the N-PeRC that was established in 2018 to better coordinate and support pediatric research activities across multiple ICs. The Committee supports the goals and objectives of N-PeRC and requests that NIH update the Committee on multi-Institute or center pediatric research projects implemented as a result of N-PeRC as well as projects in the planning stage. Additionally, the Committee requests a report within 180 days after enactment of this act on how N-PeRC plans to support studies of the physical, mental and behavioral health impacts of COVID-19 on children, including multisystem inflammatory syndrome in children, as well as plans for N-PeRC's focus over the coming 3 years.

*Tribal Health Research Office.*—The Committee recognizes the important work of the Tribal Health Research Office within OD, but is concerned that no such analogous office exists to support Native Hawaiians [NH]. The Committee encourages OD, in coordination with NIMHD and other ICs, to place high priority on addressing the research needs of NH and to partner with entities with a proven track record of working closely with NH communities and NH-serving organizations, which will allow for the development of NH researchers and scientists.

*Tuberous Sclerosis Complex [TSC].*—The Committee is encouraged by NIH's updated TSC Research Plan published in 2016 and progress advancing the plan with both public and private support. NIH should encourage research opportunities in the five key areas prioritized by workshop participants: understanding phenotypic heterogeneity in TSC, gaining a deeper knowledge of TSC signaling pathways and the cellular consequences of TSC deficiency, improving TSC disease models, developing clinical biomarkers of TSC, and facilitating therapeutics and clinical trials research. Because TSC impacts multiple organ systems, the Committee encourages the Director to coordinate the participation of multiple ICs on a research strategy aimed at addressing the numerous medical and neuropsychological burdens associated with TSC while deciphering the biology underlying phenotypic heterogeneity. Manifestations of TSC are highly variable among affected individuals, and TSC can be a model condition for developing precision medicine approaches to treat each individual's symptoms to maximize the benefit-risk ratio. The Committee encourages NICHD to counsel researchers and other stakeholders to facilitate development of a viable newborn screening assay for TSC. The Committee encourages the Director to apply recommendations from three recent NIH-sponsored workshops: the Neurodevelopmental Disorders Biomarkers Workshop held in December 2017 involving TSC and related neurodevelopmental disorders to take advantage of biomarker expertise and lessons learned across disease groups, the workshop entitled Accelerating the Development of Therapies for Anti-Epileptogenesis and Disease Modification held in August 2018 for which TSC is a model disorder given the ability to diagnose TSC prior to onset of epilepsy, and the April 2020 Curing the Epilepsies workshop which highlighted TSC as one of the best opportunities to prevent epilepsy.

## BUILDINGS AND FACILITIES

Appropriations, 2021 .....	\$200,000,000
Budget estimate, 2022 .....	250,000,000
Committee recommendation .....	275,000,000

The Committee recommendation includes \$275,000,000 for NIH buildings and facilities, an increase of \$75,000,000 above the fiscal year 2021 enacted level and \$25,000,000 above the budget request. This funding will remain available for obligation for 5 years. Once again, the Committee has not included authority for NIH to transfer up to 1 percent of its research funding to Buildings and Facilities. This would be highly unusual authority for a Federal agency and the Administration has provided no explanation for why this mechanism would be appropriate for NIH, but not other Federal agencies. The recommendation also increases the flexibility available to NIH through section 216 of the General Provisions, which has not been revised since fiscal year 2012. The bill would increase the amount of funding appropriated to Institutes and Centers that may be used for repairs and improvements from \$45,000,000 to \$100,000,000 and raise the per project cap from \$3,500,000 to \$5,000,000. The Committee supports NIH's efforts to develop a centralized and disciplined capital planning process that can guide and inform agency decision-making. While capital planning remains fragmented and inconsistent, the agency is making steady progress in developing best practices in use elsewhere in the Federal and private sector. The Committee continues to support the use of the Research Facilities Advisory Committee [RFAC] to consistently evaluate and rank all projects, regardless of their funding source. As NIH's portfolio management capabilities mature, the Committee expects the agency will develop the policies and practices to assess whether construction, purchase, or leasing is the most cost-effective approach. The Committee directs NIH to continue to provide quarterly updates of its efforts to develop best practices and its maintenance and construction plans for projects whose cost exceeds \$3,500,000, including any changes to those plans and the original baseline estimates for individual projects. It also directs NIH to describe in its fiscal year 2023 and future CJs how the projects requested in its budgets tie to its capital planning process, including the RFAC's role in determining which projects are selected for inclusion in the budget.

## ADVANCED RESEARCH PROJECTS AGENCY FOR HEALTH

Appropriations, 2021 .....	\$6,500,000,000
Budget estimate, 2022 .....	2,400,000,000
Committee recommendation .....	

The Committee includes \$2,400,000,000 to establish the Advanced Research Projects Agency for Health [ARPA-H], the President's bold and promising proposal to accelerate the pace of breakthroughs in medicine using the Defense Advanced Research Projects Agency [DARPA] as a model. As ARPA-H remains unauthorized and there are differing views on where the new entity should be placed within the Department, the Committee's recommendation should not be viewed as favoring its placement within NIH. The Committee remains open to making it a free-standing

component within NIH or, alternatively, as a separate new agency. There are pros and cons to each approach, but in either case, ARPA-H will need the independence and flexibility that DARPA possesses to act in ways that are atypical for Federal agencies. The Committee expects that the President will appoint an ARPA-H Director who has extraordinary technical and leadership skills, including a track record of proven innovation and building partnerships. The Director will be responsible for setting the culture for a diverse cohort of ARPA-H program managers who will be recruited from industry, academia, or other sectors based on demonstrated scientific vision, judgment and management skills. To pursue its mission, ARPA-H will need many of the same authorities and flexibilities employed by DARPA and the Advanced Research Projects Agency-Energy, including the ability to hire individuals rapidly based on a unique skill set outside the typical civil service hiring system and pay those individuals a competitive wage, including those in administrative or management positions. The real challenge, widely recognized, is how to recreate in ARPA-H the prescient, venture-capital-like culture that exists at DARPA. This will be very difficult to do, as efforts to replicate innovative and successful risk-taking cultures often fail. To that end, if ARPA-H is placed in NIH, the Committee believes it should be as an independent entity rather than within the Office of the Director as had been initially suggested. NIH recognizes that ARPA-H will require a very different culture and mission than its other 27 Institutes and Centers. To foster the development of that culture, ARPA-H should be located away from the main NIH campus. While the NIH workforce is composed of dedicated, talented, and frequently brilliant scientists, recruitment from the existing NIH workforce should be avoided. Rather, in addition to recruiting from industry, academia and think tanks, ARPA-H should consider the value of recruiting alumni of DARPA’s Biological Technologies Office. The Committee directs ARPA-H to provide quarterly briefings to the Committees on Appropriations of the House and Senate on efforts to stand up the organization and its supported projects, including how such activities are advancing biomedical research and development and the mission to create breakthrough health technologies.

NIH INNOVATION ACCOUNT, CURES ACT

Appropriations, 2021 .....	\$109,000,000
Budget estimate, 2022 .....	150,000,000
Committee recommendation .....	150,000,000

The Committee recommendation includes \$150,000,000 to be spent from the NIH Innovation Account for the All of Us program. The Committee report reflects distribution of the remainder of funding from the NIH Innovation Account to NCI, NINDS, and NIMH, and expects NIH to transfer funding shortly after enactment.