# National Institute on Minority Health and Health Disparities



Department of Health and Human Services National Institutes of Health



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# DEPARTMENT OF HEALTH AND HUMAN SERVICES NATIONAL INSTITUTES OF HEALTH

# National Institute on Minority Health and Health Disparities (NIMHD)

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#### **Director's Overview**

The mission of the National Institute on Minority Health and Health Disparities (NIMHD) has never been more visible and crucial than it is at this moment. NIMHD continues to rise to the occasion to build trust and capacity in various racial and ethnic minority, sexual and gender minority (SGM), underserved rural, and socioeconomically disadvantaged communities that are experiencing an undue burden of COVID-19. At a time when the issue of strucutural racism and discrimination has captivated the nation, it reminds us of the importance of NIMHD's mission and the work that we have been doing to address the fundamental causes of health disparities.



NIMHD Director Eliseo J. Pérez-Stable, M.D., has led the Institute since 2015. His contributions to cancer control and minority health and health disparities research are recognized internationally. His work helps improve the health of underserved populations, advance patient-centered care, improve cross-cultural communication, and promote diversity in the biomedical research workforce.

NIMHD's target populations are enduring the highest rates of COVID-19 related infection,

hospitalizations, and mortality. Many in our communities expressed concerns and distrust about taking a COVID-19 vaccine. NIMHD has been on the frontlines raising awareness about the connection of structural racism and discrimination, and social determinants of health to the disproportionately greater impact of COVID-19 on communities with health disparities. NIMHD leaders have been engaging with all of our communities through multiple media and outreach platforms. Through its mission to lead scientific research to improve minority health, reduce health disparities, and promote health equity, NIMHD has established scientific projects to respond to many issues pertaining to COVID-19. These issues include addressing misinformation through education, and promoting testing and vaccination through research and action. Our intramural and extramural researchers are actively engaged in COVID-19 mitigation efforts around the country.

The pandemic has presented many challenges and opportunities for NIMHD to be innovative in expanding its COVID-19 response network through its existing partnership base and the creation of new collaborations. NIMHD grantees have created innovative ways to recruit participants for research studies, collect data, and deliver interventions to minimize disruptions imposed by the pandemic. We continue to foster community-engaged research, a fundamental principle for working with communities to address public health issues such as health disparities and pandemics like COVID-19. During the pandemic, the digital chasm in many of our communities became even more profoundly apparent, as too many communities continued to experience lack of access to high-speed internet services or a smart phone to facilitate needed health and medical services remotely.

A major focus of our work is the creation of a scientific workforce that reflects the diversity of our nation and the populations we serve. NIMHD is supporting individuals who will be

equipped to help address the underlying causes of structural racism, discrimination, and the social determinants of health that lead to poor health outcomes and the perpetuation of health disparities. Our collaborations across the NIH are allowing us to create new opportunities for future scholars and current researchers to advance their careers in health disparities research and transition into competitive research investigators. One example is NIMHD Co-Chairing the NIH Common Fund's Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program. The goal of FIRST is to foster a culture shift within funded institutions to create a community of scientists and an environment committed to diversity and inclusive excellence for early-career, tenure-track faculty.

#### **NIMHD Research Highlights**

NIMHD's research also is offering us insights into other diseases and conditions that impact the health of the populations we serve. In one study, NIMHD-funded researchers explored the Weekend Effect on in-Hospital Mortality for Ischemic and Hemorrhagic Stroke in U.S. Rural and Urban Hospitals.<sup>1</sup> An ischemic stroke results from a blockage of blood flow to the brain, whereas a hemorrhagic stroke occurs when an artery in the brain ruptures or leaks blood. Researchers observed higher rates of overall stroke death among people admitted during the weekend in rural and urban hospitals. More system level research and interventions can help us to better understand the underlying causes of the weekend effect on hemorrhagic stroke mortality, and identify innovative ways to improve stroke care services and outcomes.

At NIMHD, we continue to delve into the factors that contribute to health disparities experienced by SGM populations. In one study, Variations in Substance Use and Disorders among Sexual Minorities by Race/Ethnicity, NIMHD researchers examined whether race and ethnicity had an effect on any associations that may exist between sexual minority status and substance use (tobacco, marijuana, and alcohol) and disorders. Overall, sexual minority adults showed a higher prevalence of substance use and disorder. Racial and ethnic minorities who were bisexual showed a stronger association of having tobacco use disorders and using marijuana than heterosexuals. In addition, African American or Black bisexuals were more than twice as likely to be using tobacco. The results underscore the importance of studying the intersectionality of race and ethnicity with sexual orientation, and the need for increased screening and treatment of substance use disorders among sexual minority adults especially from racial and ethnic minority groups to reduce health disparities.

#### NIH in a Changing World: Science to Enhance Human Health

NIMHD's ongoing work to fulfill its mission has prepared it to respond to the issues that have recently gripped our nation's pulse. We continue to seek innovative solutions to dismantle longstanding issues such as structural racism and discrimination that are a fundamental cause of health disparities. Our priorities over the next year will focus on existing and emerging issues related to health disparities including COVID-19, climate change, multiple chronic diseases, structural racism and discrimination, and implementation of the NIH strategic plan to address health disparities. Much of the work that we have been able to carry out has been a result of

<sup>&</sup>lt;sup>1</sup> pubmed.ncbi.nlm.nih.gov/32912515/

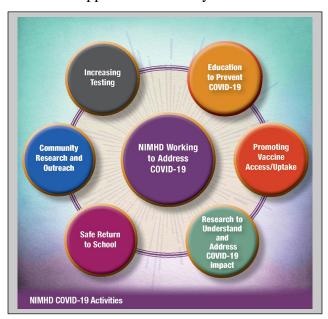
<sup>&</sup>lt;sup>2</sup> pubmed.ncbi.nlm.nih.gov/33821743/

relationships and partnerships with grantees, communities, other ICs, and other federal government agencies, which we will continue to cultivate.

#### **Mitigating COVID-19**

The COVID-19 pandemic has taken a disparate toll on racial and ethnic minority individuals and communities that were already dealing with health disparities. Approximately 65 percent of the children who lost a primary caregiver due to COVID-19 were of racial or ethnic minority backgrounds.<sup>3</sup> The pandemic has exacerbated social and health inequities which is evident in the estimated decrease in life expectancy of up to three years and the disproportionate burden of excess deaths from causes not directly related to COVID-19.<sup>4</sup> NIMHD-funded research is helping to make COVID-19 testing more accessible and convenient for many individuals of racial and ethnic minority and rural communities, and less privileged socioeconomic status. A new NIMHD initiative to promote vaccine uptake and facilitate vaccine access will invest \$14.5 million over five years to support researchers at five institutions. Investigators will engage with communities to understand the barriers and facilitators to taking a COVID-19 vaccine and address misinformation and distrust surrounding the COVID-19 vaccine among people in the selected communities.

The Rapid Acceleration of Diagnostics Underserved Populations (RADx-Up) and the Community Engagement Alliance (CEAL) Against COVID-19 Disparities programs, remain central to NIMHD's work in enhancing awareness about COVID-19, improving testing, and conducting outreach to communities most-impacted by COVID-19. In addition to expanding the COVID-19 testing activities initiated in Phase 1, RADx-UP Phase 2 supports the development of innovative approaches to safely return students and staff to school in-person, and reduce



impediments such as access to computers and internet that precluded some students from online learning. The consequences of the pandemic will be felt for a very long time and it is important to take direct and deliberate action now to alleviate the effects of the pandemic.

#### **Structural Racism and Discrimination**

Structural racism and discrimination (SRD) refers to macro-level conditions such as residential segregation and institutional policies that limit opportunities, resources, power, and well-being of individuals and populations based on race or ethnicity and

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<sup>&</sup>lt;sup>3</sup> www.drugabuse.gov/news-events/news-releases/2021/10/the-hidden-us-covid-19-pandemic-orphaned-children-more-than-140000-us-children-lost-a-primary-or-secondary-caregiver-due-to-the-covid-19-pandemic

<sup>4</sup> www.pnas.org/content/118/5/e2014746118

less privileged statuses.<sup>5</sup> Before the recent large-scale movements to address inequitable practices, laws, policies, and social norms that have shaped this country and contributed to health disparities, NIMHD had long been working in this sphere funding research to address health disparities related to race, structural inequalities, racism, discrimination and stress, implicit bias, and sterotyping.

In 2017, in collaboration with the Office of Minority Health at the Department of Health and Human Services, NIMHD convened a scientific workshop to discuss how to identify and address SRD and its impact on minority health and health disparities. The recommendations led to NIMHD developing and launching a NIH-wide Structural Racism and Discrimination initiative in FY 2021 supported by 24 ICs with up to \$30 million allocated for research grants. This research will focus on the role of structural racism and discrimination in causing and sustaining health disparities, and interventions to address SRD. Another offshoot of the workshop was the release of a special issue of the journal *Ethnicity and Disease*<sup>6</sup> in April 2021 on *Structural Racism and Discrimination: Impact on Minority Health and Health Disparities* in which the authors call for increased research and action on SRD that considers the interconnected systems perpetuating racism and other forms of discrimination, and provide a framework for studying the experiences of different racial and ethnic populations.

Reducing and eliminating structural racism and discrimination is a priority that NIMHD will continue to pursue with partners across different communities, agencies, disciplines, and sectors.

#### **Climate Change**

The cumulative impact of environmental hazards and stressors on racial and ethnic minority, underserved rural, and less privileged socioeconomically disadvantaged individuals highlights the intersection of climate change and health disparities. For example, racial and ethnic minority individuals often live in communities without green space or safety for walkability, and high levels of air pollution from proximity to highways and industrial manufacturers. The effects of climate change are worsening food insecurity in communities already encountering health disparities. In one Alaska Native community in the Lower Yukon River region, residents are experiencing a shortage of salmon, the primary subsistence that families rely on for food and wages. At NIMHD, our *Specialized Centers of Excellence on Environmental Health Disparities Research* are conducting multidisciplinary research aimed at mitigating environmental health disparities and improving access to healthy and sustainable environments for populations with health disparities.

#### NIH Minority Health and Health Disparities Strategic Plan (2021-2025)

This is an opportune time for all of NIH to implement the NIH Minority Health and Health Disparities Strategic Plan (2021-2025)<sup>8</sup> under NIMHD's guidance, given the complexity and

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 $<sup>^{5}\</sup> www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/discrimination$ 

<sup>&</sup>lt;sup>6</sup> ethndis.org/edonline/index.php/ethndis/issue/view/54

<sup>&</sup>lt;sup>7</sup> www.nytimes.com/2021/08/12/dining/wild-alaskan-salmon.html

<sup>8</sup> www.nimhd.nih.gov/about/strategic-plan/

worsening of health disparities due to the COVID-19 pandemic. The Strategic Plan charts a course for NIH to advance research on minority health and health disparities and expand the field over the next 10 to 15 years. At NIH, our work will encompass three priority areas: scientific research; research-sustaining activities (research training, capacity building, and workforce development and diversity); and outreach, collaboration, and dissemination. This actionable document will guide the future of NIH's minority health and health disparities research program for years to come.

#### **Preventing, Treating, and Managing Multiple Chronic Diseases**

Chronic diseases are costly to the U.S. healthcare system, are the leading causes of death and disability, and most affected Americans have more than one. Racial and ethnic minority populations experience multiple chronic diseases that often occur together such as heart disease, diabetes, stroke, cancer, obesity, and chronic kidney disease. In FY 2021, NIMHD funded 11 *Centers for Multiple Chronic Diseases Associated with Health Disparities: Prevention, Treatment, and Management* to enhance its research emphasis in finding solutions to chronic diseases. Regional coalitions of research institutions and consortium partners at research centers around the country will focus on developing and implementing interventions in real-world settings that have the potential to reduce chronic disease disparities. The Centers will conduct research in areas such as improving health outcomes for caregivers of patients with Alzheimer's disease and related disorders, reducing cardiovascular and cardiometabolic health disparities, improving diabetes management, reducing childhood obesity, and promoting physical activity and healthy eating. NIMHD also funded a Research Coordinating Center to: 1) enable collaboration and communication among investigators and the research community; 2) harmonize research projects conducted across awardees; and 3) facilitate network outreach.

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# Overview of NIMHD

The National Institute on Minority Health and Health Disparities (NIMHD) leads scientific research to improve minority health, reduce health disparities, and promote health equity to ensure that all populations have an equal opportunity to live healthy and productive lives. NIMHD conducts and supports research and fosters a diverse biomedical research workforce focused on health disparities in these priority areas:

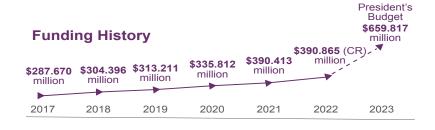
- **Extramural**: Clinical and Health Services Research; Community Health and Population Science; Integrative Biological and Behavioral Sciences
- Intramural: Population and Community Health Sciences; Social and Behavioral Sciences; Epidemiology and Genetics

# **NIMHD History**

**1990:** Office of Minority Programs (OMP) created by HHS Secretary Louis Sullivan, M.D.

John Ruffin, Ph.D., became Associate Director of Minority Programs, then Associate Director for the Office of Research on Minority Health (ORMH) (1993); National Center on Minority Health and Health Disparities (NCMHD) Director (2001); and the first NIMHD Director (2010))

- **1993:** Office of Research on Minority Health (ORMH) established by *Public Law* 103-43, the Health Revitalization Act of 1993
- **2000:** NCMHD established by *Public Law 106-525*, the *Minority Health and Health Disparities Research and Education Act of 2000*
- 2007: Joyce A. Hunter, Ph.D., appointed NCMHD Deputy Director
- **2010:** NIMHD created by *Public Law 111-148*, the Patient Protection and Affordable Care Act
- 2011: William G. Coleman Jr. became first NIMHD Scientific Director and the first African American Scientific Director in the history of the NIH Intramural Research Program
- 2015: Eliseo J. Pérez-Stable, M.D., became the second NIMHD Director
- **2017:** Anna María Nápoles, Ph.D., M.P.H., became the second NIMHD Scientific Director and the first Latina Scientific Director at NIH
- **2018:** NIMHD Minority Health and Health Disparities Research Framework released
- 2020: Monica Webb Hooper, Ph.D., appointed NIMHD Deputy Director
- 2021: Congress approved NIMHD's reorganization and creation of extramural divisions: 1) Integrative Biological and Behavioral Sciences; 2) Community Health and Population Science; and 3) Clinical and Health Services Research





National Institute on Minority Health and Health Disparities

www.nimhd.nih.gov



NIMHD Director Eliseo J. Pérez-Stable, M.D., has led the Institute since 2015. His contributions to cancer control, and minority health and health disparities research are recognized internationally. His work helps improve the health of underserved populations, advance patient-centered care, improve cross-cultural communication, and promote diversity in the biomedical research workforce.

# NIMHD by the Numbers (FY 2017–2021)

Total Awards: 960 awards

R01 Awards: 301

Research Centers: 105

Number of Principal Investigators: 1,250

NIMHD Health Disparities Research Institute Scholars: **332** (2016-2021)

Average Number of FTEs: 70

#### **Research Highlights**

- The Smoking Susceptibility and Tobacco Media Engagement among Youth Never Smokers study found that youth never smokers classified as being susceptible to future smoking had seven times the risk of future cigarette smoking after adjustment for exposure to tobacco marketing media and ever use of electronic cigarettes. Exposure to tobacco marketing, using tobacco-related apps, seeing social media content posted about tobacco, and ever use of electronic cigarettes also predicted experimental smoking.
- The Health Disparities Attributable to Air Pollutant
   Exposure in North Carolina: Influence of Residential
   Environmental and Social Factors study found that air
   pollution poses a higher risk of death for some people based
   on age, education, and urban residence. African Americans
   in poor communities had the highest risk of mortality.
- Confronting COVID-19 in Under-Resourced, African
  American Neighborhoods: A Qualitative Study
  Examining Member and Stakeholders' Perceptions
  determined that the community's perspective is valuable in
  identifying barriers and facilitators to COVID-19 prevention,
  coping, and testing, and in potentially improving outcomes.
  Barriers included difficulty with social distancing, mixed
  messages, food insecurity, mental health issues, and
  mistrust. Facilitators included fear of contracting COVID-19,
  as well as free and convenient testing.

#### **Recent Accomplishments**

- NIMHD led the development of the Understanding and Addressing the Impact of Structural Racism and Discrimination Initiative to support observational and intervention research to understand and address the role of structural racism and discrimination in causing and sustaining health disparities to improve minority health and reduce health disparities.
- The PhenX Social Determinants of Health Collection
  provides recommended measures vetted through an
  external panel of experts for researchers to use in studies
  on minority health and health disparities. The collection
  contains 19 newly added measures of both individual and
  social structural determinants reflecting upstream factors
  that shape behaviors and health outcomes.

#### **Current Activities**

The Rapid Acceleration of Diagnostics for Underserved Populations (RADx-UP) studies are focused on promoting use of testing as an intervention to mitigate disparities for individuals from populations and communities disproportionately affected by the COVID-19 pandemic.
 RADx-UP Phase II will expand on the COVID-19 testing activities begun in Phase I; and implement the Safe Return to School Diagnostic Testing Initiative which will define strategies of how to use COVID-19 testing for children and staff to minimize transmission in school settings. RADx-UP projects have been funded in 33 states.

- The Community Engagement Alliance Against COVID-19 Disparities (CEAL) initiative provides trustworthy information through active community engagement and outreach to the communities most impacted by the COVID-19 pandemic. CEAL teams are working in 21 states, the District of Columbia, and Puerto Rico to build long-lasting partnerships, foster trust, and promote the importance of diversity and inclusion in the research response to COVID-19. CEAL partners have developed educational tools, factual materials, and resources in different languages such as Spanish, Chinese, and Korean to broaden CEAL's reach into the affected communities.
- The Vaccine Uptake Initiative funded seven projects to promote research strategies to test interventions to boost SARS-CoV-2 vaccine uptake and implementation among populations who experience health disparities in the United States.
- The Research Centers in Minority Institutions Program is the cornerstone of NIMHD's work to expand the national capacity for research in the health sciences by supporting institutions that offer doctorate degrees in the health professions or in a health-related science, that have more limited research funding from NIH and a historical and documented commitment to promoting diversity in the scientific biomedical workforce and caring for populations with health disparities.

#### **Future Initiatives**

- Centers for Multiple Chronic Diseases Associated with Health Disparities are comprehensive research centers that will leverage regional coalitions of research institutions and consortium partners testing interventions in real-world settings to prevent, treat, and manage chronic diseases associated with health disparities.
- Natural History Study of COVID-19 Survivors Using
   Digital Wearables will collect high-resolution physiological
   data to understand the clinical course of COVID-19 in patients.
   This study will increase understanding of COVID-19 before,
   during, and after symptoms manifest.
- The Resource Center for the Tribal Epidemiology Centers
  aims to enhance the capacity of the Tribal Epidemiology
  Centers to engage in data collection, compilation, and
  analysis of data that can be used in health research focused
  on American Indian and Alaska Native populations. The
  resource center also will offer research skills development and
  sustained mentoring program for early-stage investigators.





#### **Major Changes in the Budget Request**

Major changes by budget mechanism and/or budget activity detail are briefly described below. The FY 2023 President's Budget for NIMHD is \$659.8 million, an increase of \$268.9 million from the FY 2022 CR level. The FY 2023 President's Budget reflects the Administration's fiscal policy goals for the Federal Government. Within that framework, NIMHD will pursue its highest research priorities through strategic investments and careful stewardship of appropriated funds.

#### Research Project Grants (RPGs) (+\$210.1 million; total \$379.2 million):

NIMHD will fund approximately 720 RPGs in FY 2023. Funding will support existing and new NIMHD initiatives as well as investigator-initiated research. Funding for RPGs in FY 2023 will increase by 124% over FY 2022 levels overall due to a substantial proposed increase in total NIMHD Funding, with a particular focus on R01 and U01 activities.

#### Research Centers (+\$20.3 million; total \$156.5 million):

NIMHD will continue to provide funding for RCMIs, Centers of Excellence, and multiple Centers for AIDS Research. Additional funding has also been allocated to continue to support Centers for Multiple Chronic Diseases Associated with Health Disparities.

#### Other Research (+\$10.7 million; total \$35.2 million):

NIMHD will continue to award new Career Development grants while also supporting other intra-NIH collaborative projects as well as the NIMHD Research Endowment Program.

#### Research Management and Support (+\$13.6 million; total \$45.0 million):

The increase in funding relative to FY 2022 will provide NIMHD with the program management and administrative support necessary for the significant growth in all Research Grant awards.

# **Budget Mechanism Table**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

# **Budget Mechanism**\* (Dollars in Thousands)

Mechanism	FY	2021 Final	FY	2022 CR	FY 20	23 President's Budget	FY 2023 +/- FY 2022		
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	
Research Projects:									
Noncompeting	194	\$107,341	193	\$106,804	225	\$125,740		\$18,935	
Administrative Supplements	(23)	\$3,280	(23)	\$3,284	(50)	\$25,000	(27)	\$21,716	
Competing:									
Renewal	3	\$2,056	3	\$2,058	0	\$0	-3	-\$2,058	
New	81	\$43,566	81	\$43,617	450	\$205,586	369	\$161,969	
Supplements	0	\$75	0	\$75	0	\$0	0	-\$75	
Subtotal, Competing	84	\$45,697	84	\$45,750	450	\$205,586		\$159,836	
Subtotal, RPGs	278	\$156,318	277	\$155,838	675	\$356,326	-	\$200,487	
SBIR/STTR	29	\$13,219	29	\$13,234	45	\$22,863	16	\$9,628	
Research Project Grants	307	\$169,537	306	\$169,073	720	\$379,188	414	\$210,116	
Research Centers									
Specialized/Comprehensive	27	\$66,270		\$57,809	29	\$69,827	5	\$12,019	
Clinical Research	0	\$0		\$0	0	\$0	0	\$0	
Biotechnology	0	\$170		\$170	0	\$173	0	\$3	
Comparative Medicine	0	\$0	0	\$0	0	\$0	0	\$0	
Research Centers in Minority Institutions	21	\$78,151	21	\$78,241	25	\$86,489	4	\$8,248	
Research Centers	48	\$144,590	45	\$136,220	54	\$156,489	9	\$20,269	
Other Research:									
Research Careers	56	\$7,980	56	\$7,989	67	\$10,240	11	\$2,251	
Cancer Education	0	\$0	0	\$0	0	\$0	0	\$0	
Cooperative Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0	
Biomedical Research Support	0	\$0	0	\$0	0	\$0	0	\$0	
Minority Biomedical Research Support	0	\$276	0	\$276	0	\$280	0	\$4	
Other	21	\$16,264	21	\$16,283	34	\$24,720	13	\$8,437	
Other Research	77	\$24,520	77	\$24,548	101	\$35,240	24	\$10,691	
Total Research Grants	432	\$338,647	428	\$329,841	875	\$570,917	447	\$241,076	
Ruth L Kirschstein Training Awards:	<u>FTTPs</u>		<u>FTTPs</u>		<u>FTTPs</u>		FTTPs		
Individual Awards	23	\$965	23	\$967	24	\$1,000	1	\$33	
Institutional Awards	0	\$18	0	\$18	0	\$800	0	\$782	
Total Research Training	23	\$984	23	\$985	24	\$1,800	1	\$815	
Research & Develop. Contracts	94	\$16,936	i i	\$17,616	189	\$27,100	89	\$9,484	
SBIR/STTR (non-add)	(0)	(\$137)	(0)	(\$137)	(0)	(\$231)	(0)	(\$94)	
Intramural Research	7	\$9,188	13	\$11,000	18	\$15,000	5	\$4,000	
Res. Management & Support	61	\$24,658	127	\$31,423	192	\$45,000	65	\$13,577	
SBIR Admin. (non-add)	(0)	(\$0)	(0)	(\$0)	(0)	(\$0)	(0)	(\$0)	
Construction		\$0		\$0		\$0		\$0	
Buildings and Facilities		\$0		\$0		\$0		\$0	
Total, NIMHD	68	\$390,413	140	\$390,865	210	\$659,817	70	\$268,952	

All items in italics and brackets are non-add entries.

# **Appropriations Language**

# NATIONAL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES

For carrying out section 301 and title IV of the PHS Act with respect to minority health and health disparities research, \$659,817,000.

# **Summary of Changes**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

#### **Summary of Changes**

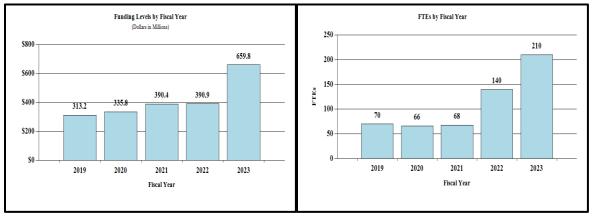
(Dollars in Thousands)

FY 2022 CR	\$390,865
FY 2023 President's Budget	\$659,817
Net change	\$268,952

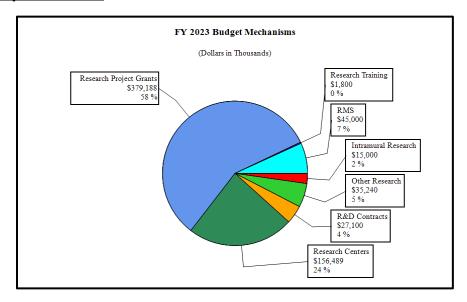
	FY 2022 CR		FY 2023 President's Budget		Built-In Change from FY 2022 CR	
CHANGES	FTEs	Budget Authority	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:						
1. Intramural Research:						
a. Annualization of January 2022 pay increase & benefits		\$4,375		\$4,873		\$29
b. January FY 2023 pay increase & benefits		\$4,375		\$4,873		\$149
c. Paid days adjustment		\$4,375		\$4,873		-\$17
d. Differences attributable to change in FTE e. Payment for centrally furnished services		\$4,375 \$1,348		\$4,873 \$1,375		\$1,562 \$27
f. Cost of laboratory supplies, materials, other expenses, and				•		
non-recurring costs		\$5,277		\$8,752		\$116
Subtotal						\$1,868
2. Research Management and Support:						
a. Annualization of January 2022 pay increase & benefits		\$15,731		\$17,442		\$103
b. January FY 2023 pay increase & benefits		\$15,731		\$17,442		\$528
c. Paid days adjustment		\$15,731		\$17,442		-\$60
d. Differences attributable to change in FTE		\$15,731		\$17,442		\$8,115
e. Payment for centrally furnished services		\$2,016		\$2,056		\$40
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		\$13,676		\$25,501		\$300
Subtotal						\$9,026
Subtotal, Built-in						\$10,894
	FY 2	022 CR		President's udget		Change from 2022 CR
CHANGES	No.	Amount	No.	Amount	No.	Amount
B. Program:						
1						
1. Research Project Grants:		****		***		
1. Research Project Grants: a. Noncompeting	193	\$110,088 \$45,750	225	\$150,740 \$205,586	32	\$40,651 \$150,836
Research Project Grants:     a. Noncompeting     b. Competing	193 84 29	\$45,750	450	\$205,586	366	\$159,836
1. Research Project Grants: a. Noncompeting	84	,	- 1			,
Research Project Grants:     a. Noncompeting     b. Competing     c. SBIR/STTR	84 29	\$45,750 \$13,234	450 45	\$205,586 \$22,863	366 16	\$159,836 \$9,628
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs	84 29 306	\$45,750 \$13,234 \$169,073	450 45 720	\$205,586 \$22,863 \$379,188	366 16	\$159,836 \$9,628 \$210,116
1. Research Project Grants:  a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs  2. Research Centers	84 29 306 45	\$45,750 \$13,234 \$169,073 \$136,220	450 45 720 54	\$205,586 \$22,863 \$379,188 \$156,489	366 16 414 9	\$159,836 \$9,628 \$210,116 \$20,269
1. Research Project Grants:  a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs  2. Research Centers 3. Other Research 4. Research Training	84 29 306 45 77 23	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985	450 45 720 54 101 24	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800	366 16 414 9	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research	84 29 306 45 77	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548	450 45 720 54 101	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240	366 16 414 9 24	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691
1. Research Project Grants:  a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts	84 29 306 45 77 23	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616	450 45 720 54 101 24	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100	366 16 414 9 24	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts Subtotal, Extramural	84 29 306 45 77 23	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616 \$348,442	450 45 720 54 101 24 189	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100 \$599,817	366 16 414 9 24 1 89	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484 \$251,375
1. Research Project Grants:  a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs  2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts Subtotal, Extramural 6. Intramural Research	84 29 306 45 77 23 100	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616 \$348,442 \$11,000	450 45 720 54 101 24 189	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100 \$599,817	366 16 414 9 24 1 89	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484 \$251,375 \$2,132
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts Subtotal, Extramural 6. Intramural Research 7. Research Management and Support 8. Construction	84 29 306 45 77 23 100	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616 \$348,442 \$11,000 \$31,423	450 45 720 54 101 24 189	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100 \$599,817 \$15,000 \$45,000	366 16 414 9 24 1 89	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484 \$251,375 \$2,132 \$4,551
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts Subtotal, Extramural 6. Intramural Research 7. Research Management and Support	84 29 306 45 77 23 100	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616 \$348,442 \$11,000 \$31,423	450 45 720 54 101 24 189	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100 \$599,817 \$15,000	366 16 414 9 24 1 89	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484 \$251,375 \$2,132
1. Research Project Grants: a. Noncompeting b. Competing c. SBIR/STTR Subtotal, RPGs 2. Research Centers 3. Other Research 4. Research Training 5. Research and development contracts Subtotal, Extramural 6. Intramural Research 7. Research Management and Support 8. Construction 9. Buildings and Facilities	84 29 306 45 77 23 100	\$45,750 \$13,234 \$169,073 \$136,220 \$24,548 \$985 \$17,616 \$348,442 \$11,000 \$31,423 \$0 \$0	450 45 720 54 101 24 189 18	\$205,586 \$22,863 \$379,188 \$156,489 \$35,240 \$1,800 \$27,100 \$599,817 \$15,000 \$45,000	366 16 414 9 24 1 89 5 65	\$159,836 \$9,628 \$210,116 \$20,269 \$10,691 \$815 \$9,484 \$251,375 \$2,132 \$4,551

## **Budget Graphs**

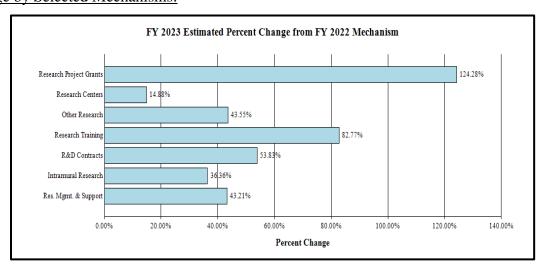
# History of Budget Authority and FTEs:



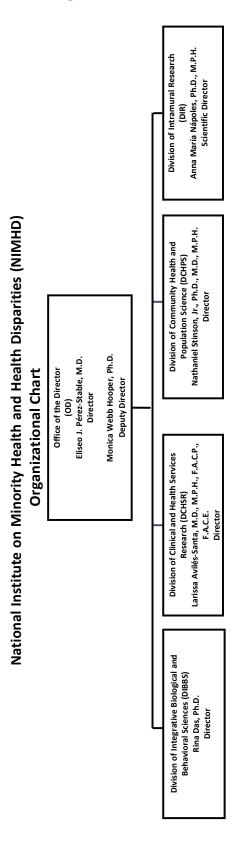
#### Distribution by Mechanism:



# Change by Selected Mechanisms:



# **Organization Chart**



# **Budget Authority by Activity Table**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

# **Budget Authority by Activity** \*

(Dollars in Thousands)

	FY 2021 Final		FY 2022 CR		FY 2023 F Buo	President's lget	FY 2023 +/- FY 2022 CR	
Extramural Research	FTE	Amount	FTE	Amount	<u>FTE</u>	Amount	FTE	Amount
<u>Detail</u>								
Integrative Biological and Behavioral Sciences		\$55,159		\$53,902		\$124,089		\$70,187
Community Health and Population Sciences		\$58,588		\$57,253		\$131,803		\$74,550
Clinical and Health Services Research		\$68,436		\$66,877		\$153,959		\$87,082
Research Centers on Minority Health and Health Disparities		\$148,649		\$145,262		\$159,788		\$14,526
Training and Career Development		\$25,734		\$25,148		\$30,178		\$5,030
Subtotal, Extramural		\$356,567		\$348,442		\$599,817		\$251,375
Intramural Research	7	\$9,188	13	\$11,000	18	\$15,000	5	\$4,000
Research Management & Support	61	\$24,658	127	\$31,423	192	\$45,000	65	\$13,577
TOTAL	68	\$390,413	140	\$390,865	210	\$659,817	70	\$268,952

 $<sup>^{\</sup>ast}$  Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

#### **Justification of Budget Request**

#### **National Institute on Minority Health and Health Disparities**

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

Budget Authority (BA):

			FY 2023	
	FY 2021	FY 2022	President's	FY 2023 +/-
	Final	CR	Budget	FY 2022
BA	\$390,413,000	\$390,865,000	\$659,817,000	\$268,952,000
FTE	68	140	210	70

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

Overall Budget Policy: The FY 2023 President's Budget request is \$659.8 million, an increase of \$269.0 or 68.8 percent above the FY 2022 CR level. These increases are distributed across all programmatic areas, with a primary focus being in Research Project Grants.

#### **Program Descriptions**

#### **Integrative Biological and Behavioral Sciences**

In FY 2021, NIMHD funded 185 awards in integrative biological and behavioral sciences totaling \$112.2 million. These awards will be part of a portfolio of research projects investigating how mechanisms and pathways influence resilience and susceptibility to adverse health conditions that affect populations with health disparities. One study, *Estimating the Combined Effects of Natural and Built Environmental Exposures on Birthweight among Urban Residents in Massachusetts*, <sup>10</sup> identified maternal environmental exposures, and built or socioeconomic environmental exposures during pregnancy as important predictors of birthweight. These findings make an important contribution to our understanding of maternal mobidity and mortality disparities, and the influence of environmental exposures on the growth and development of a baby. A study funded by NIMHD, *Health Disparities Attributable to Air Pollutant Exposure in North Carolina: Influence of Residential Environmental and Social Factors*, <sup>11</sup> showed that a higher risk of mortality from air pollution exposure was associated with age, education, and urbanicity; and African Americans or Blacks in poor communities had the

<sup>&</sup>lt;sup>9</sup> Awards for this and the next two program activities include awards under Research Centers on Minority Health and Health Disparities.

<sup>10</sup> pubmed.ncbi.nlm.nih.gov/33260804/

<sup>&</sup>lt;sup>11</sup> pubmed.ncbi.nlm.nih.gov/32479364/

highest risk of mortality from air pollution. In another study, NIMHD-funded researchers determined that living in adverse neighborhood environments can speed up epigenetic aging, while positive neighborhood attributes may buffer the effects. The *Neighborhood Environment, Social Cohesion, and Epigenetic Aging*<sup>12</sup> study examined associations between the neighborhood social environment measures of poverty, quality, and social cohesion, and three epigenetic clocks, which are biochemical tests to measure age. The *Center for Native American Environmental Health Equity Research* seeks to understand the effects of plastic degradation on health. Researchers will evaluate the distribution of microplastics and other degradation products, along with emissions from oil, gas, and minerals industries that could add to these chemicals. The unpredictable changes in the weather have serious public health implications for populations with health disparities and require urgent attention.

Future research in integrative biological and behavioral sciences will include a new research project: A Multidimensional Digital Approach to Address Vaccine Hesitancy and Increase COVID-19 Vaccine Uptake among African American Young Adults in the South. This community-engaged research study will assess multi-level determinants that influence young African Americans or Blacks' decision about taking a COVID-19 vaccine. This project will test the effectiveness of the Tough Talks COVID intervention which uses an app to raise awareness about the COVID-19 vaccines among African American youth to assist in them in making an informed decision about getting vaccinated. In FY 2022, NIMHD will launch the Family Health Initiative to study factors that promote or threaten the health and well-being of families of racial and ethnic minority backgrounds and other families who experience health disparities. The Initiative will test interventions involving the family that emphasize resilience as a mechanism to prevent or abate the potential negative effects of social and environmental exposures on family health.

<u>Budget Policy</u>: The FY 2023 President's Budget request for Integrative Biological and Behavioral Sciences is \$128.9 million, an increase of \$61.3 million or 90.7 percent compared with the FY 2022 CR level.

#### **Clinical and Health Services Research**

Another area of research focus for NIMHD is clinical and health services research. In FY 2021, NIMHD funded 214 awards in clinical and health services totaling \$107 million. Our emphasis on research within the healthcare setting will help to build new knowledge to improve health outcomes and quality health care for populations with health disparities. Additionally, this research will enhance our understanding of the health profile and clinical manifestations of diseases in racial and ethnic minority populations, and identify the most effective methods to screen, diagnose, treat, or manage medical conditions in populations affected by health disparities. One NIMHD-funded RADx-UP project will explore systems-level approaches to reduce vaccine hesitancy and improve uptake. The *Bridging the Evidence-to-Practice Gap: Evaluating Practice Facilitation as a Strategy to Accelerate Translation of a Systems-level Adherence Intervention into Safety-net Practices* study, will develop, deploy, and evaluate culturally and linguistically tailored narrative communication tools to promote vaccine uptake featuring patients and front-line healthcare workers from federally qualified health centers.

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<sup>12</sup> www.ncbi.nlm.nih.gov/pmc/articles/PMC8034890/

Another project, Integrated Clinical and Social Multi-level Decision Support Platform to Address Social Determinants of Health among Minority Populations in Baltimore City, will develop and evaluate an electronic health record integrated clinical decision support (CDS) system to identify and manage high chronic disease burden and social determinants of health needs among African American or Black patients with low income at four primary care practices. The team will assess the acceptability of the CDS tool and disseminate the data platform across the Johns Hopkins Health System, the Maryland statewide primary care program, and potentially nationally.

Many children from racial and ethnic minority and less privileged socioeconomic backgrounds lack access to a regular source of health care and consequently are at higher risk for poor health outcomes. In FY 2021, NIMHD launched the *Effectiveness of School-Based Health Centers to Advance Health Equity Initiative* to support multidisciplinary research to study the effectiveness of school-based health centers (SBHCs) as a health services care delivery model to detect, manage, and prevent chronic illnesses that disproportionately burden school-aged children from populations with health disparities.

<u>Budget Policy</u>: The FY 2023 President's Budget request for Clinical and Health Services Research is \$143.5 million, an increase of \$68.2 million or 90.7 percent compared with the FY 2022 CR level.

#### <u>Addressing Racial Disparities in Maternal</u> <u>Morbidity and Mortality</u>

Racial and ethnic minority women face substantially higher rates of pregnancy-related complications and pregnancy-related death compared to White women. African American, and American Indian and Alaska Native women are two to four times more likely to die from pregnancy-related causes compared to White women.

The NIMHD Addressing Racial Disparities in Maternal Morbidity and Mortality, supports five grants conducting multidisciplinary research to examine mechanisms underlying racial and ethnic disparities in maternal mortality and morbidity, test the efficacy and/or effectiveness of multi-level interventions, and/or research strategies to deliver proven-effective prevention and treatment interventions to reduce these disparities. Research is aimed at improving quality of postpartum care for high risk women, expanding access to enhanced prenatal and postnatal care services, understanding severe maternal, hospital quality and maternal outcomes, and increasing knowledge about maternal safety bundles and doulas to improve maternal outcomes.

A key aspect of quality health care that is often not explored is the interpersonal encounters between patients and clinicians in the clinical setting, and the factors that may contribute to persistent health disparities. To better understand these issues, NIMHD will launch the Patient-Clinician Communication and Relationship: An Opportunity to Affect Health Outcomes in Health Disparity Populations Initiative to: 1) enhance understanding of how the patient-clinician communication and/or relationship in the primary care and chronic disease care settings affect health outcomes in populations with health disparities, and 2) identify best practices and interventions that can build and improve patient-clinician communication and relationship to improve health outcomes.

## **Community Health and Population Science**

In the area of community health and population science, NIMHD is supporting epidemiological research and community-based and health promotion interventions, and is seeking to understand the pathways of the determinants of community and population health in the context of health disparities. In FY 2021, NIMHD

invested \$129.4 million to support 188 community health and population science awards. Funded research explored interpersonal, family, neighborhood, community and societal-level mechanisms and pathways that influence disease risk, resilience, morbidity, and mortality in populations with health disparities. One study in the community health and population science portfolio, Factors Associated with Viral Suppression among Racial and Ethnic Minority Women in the Miami-Dade County Ryan White Program, 2017, 13 examined the association between sustained viral suppression (having a viral load count of less than 200 copies/ml in all viral load tests in a year) and patterns of co-occurring risk factors for people with HIV. Risk factors include mental health symptoms, substance use, sexual risk behavior, and adverse social conditions such as domestic violence. Compared to those without any risk factors, participants with one or more co-occurring risk factors were significantly less likely to achieve sustained viral suppression. U.S.-born African Americans or Blacks in the lowest level of income category (< 100 percent federal poverty level), were the most likely to have the highest number of cooccurring risk factors. Overall, African Americans or Blacks, women, and individuals with the lowest level of income were the least likely to achieve sustained viral suppression, while foreignborn individuals were more likely than U.S.-born individuals to achieve sustained viral suppression. These results point to the importance of further research and targeted interventions to understand and address these interconnected factors to improve health outcomes for people with HIV.

Research in this area will continue to address COVID-19 mitigation. For example, the Impacts of Mitigation Strategies to Prevent COVID-19 Transmission in American Indian Communities, will develop an innovative non-pharmaceutical intervention to analyze the effects of COVID-19 mitigation policies on American Indian populations living on tribal lands and in rural areas, by integrating big data and deep learning techniques with primary data collection. A new NIMHD Initiative on Community-Level Interventions to Improve Minority Health and Reduce Health Disparities will support community-engaged research to develop, test, and evaluate community-level interventions to improve health in racial and ethnic minority communities and reduce health disparities in affected communities.

Finally, to enhance the capacity of Tribal Epidemiology Centers in the collection, compilation, and analysis of data that can be used in health research focused on American Indian and Alaska Native populations, NIMHD will establish a *Resource Center for the Tribal Epidemiology Centers*. The resource center also will offer capacity building opportunities in the development of research methods, specific training and resources in data science, and a sustained mentoring program for early-stage investigators working at or affiliated with a Tribal Epidemiology Center.

<u>Budget Policy</u>: The FY 2023 President's Budget request for Community Health and Population Sciences is \$217.0 million, an increase of \$103.2 million or 90.7 percent compared with the FY 2022 CR level.

#### Research Centers on Minority Health and Health Disparities

The Centers of Excellence program and the Research Centers in Minority Institutions (RCMI) program have formed the core of the NIMHD Research Centers portfolio. These Centers have

<sup>13</sup> pubmed.ncbi.nlm.nih.gov/34078113/

been especially instrumental in partnering with NIMHD and their local communities to address the disproportionate impact of COVID-19 in racial and ethnic minority, socioeconomically disadvantaged, and rural communities lacking access to medical services. In FY 2021, NIMHD invested \$132.2 million to fund 63 research centers. In a study, Confronting COVID-19 in Under-resourced, African American Neighborhoods: A Qualitative Study Examining Member and Stakeholders' Perceptions<sup>14</sup> in five urban and rural low income communities in Alabama, researchers identified barriers and facilitators to COVID-19 prevention, testing, and coping. Participants identified prevention barriers such as apathy, difficulty with social distancing, lack of information, mixed messages from authority figures, and lack of personal protective equipment. Barriers to coping included food insecurity, mental health issues, isolation, economic hardships, lack of health care access, lack of internet access which affected access to virtual learning and church services. Testing barriers were misunderstanding, fear, mistrust, testing restrictions, and location of testing sites. Examples of facilitators included fear of contracting COVID-19, contact tracing, religious faith, convenient testing location, free testing, and clear and consistent messages from trusted sources. Further research and interventions focused on social determinants of health can help to address the impact of COVID-19 and the reduction of health disparities in the communities experiencing an undue burden of both.

A current RCMI research project is investigating the impact of COVID-19 on maternal health in Puerto Rico. The study is working to identify risk and protective factors of the COVID-19 outbreak for pregnant women and mothers of children one year old or younger. Investigators also will examine pregnancy-related experiences and outcomes, and the mental health impact of COVID-19. Another study, the Genetic Contributors to COVID-19 Outcomes in a Cohort of Caribbean Hispanics with Established Cardiovascular Disease, will investigate the impact and progression of COVID-19 among a cohort of patients with cardiovascular disease in Puerto Rico. Researchers also will perform genome-wide association analyses of poor clinical outcomes such as hospitalizations, intensive care unit admission, and need for ventilators in severe or criticallyill COVID-19 patients compared to patients with established cardiovascular disease. In FY 2021, NIMHD provided RCMI supplemental awards to Morehouse School of Medicine and North Carolina Central University to initiate the development of clinical research networks in ambulatory settings for every kind of disease. NIMHD plans to establish the RCMI Practice-Based Clinical Research Networks (RCMI-PBRN) in FY 2022 to create a network of clinical research to study diverse clinicians caring for populations with health disparities. The RCMI-PBRN will help to facilitate the creation of local or regional consortia of ambulatory primary care health systems connected to RCMI academic health centers and federally qualified health centers that care for patients who experience health disparities and can be positioned to participate in coordinated studies and clinical trials.

NIMHD research centers are working on the ground to engage with individuals who are hesitant to take a COVID-19 vaccine in order to understand and help address their concerns. The *Investigating SARS-CoV-2 Vaccine Hesitancy in Houston* will construct a rapid, multilevel, convergent parallel mixed-methods design to pilot a community-centered and culturally responsive SARS-CoV-2 vaccine implementation program. Another study in Alabama, the *COVID-19 Testing Model for Vulnerable Populations: Revision to Address Vaccine Hesitancy and Uptake*, will assess factors that contribute to COVID-19 vaccine hesitancy among low-

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<sup>&</sup>lt;sup>14</sup> pubmed.ncbi.nlm.nih.gov/33472411/

income residents, and develop culturally tailored educational materials and messages to address the identified factors. Researchers also will evaluate the impact of the multi-level strategy in improving vaccination rates and decreasing vaccine hesitancy.

<u>Budget Policy</u>: The FY 2023 President's Budget request for Research Centers in Minority Institutions is \$88 million, an increase of \$8 million or 10 percent compared with the FY 2022 CR level.

#### **Research Training**

As part of its efforts to diversify the biomedical research workforce, NIMHD remains committed to identifying, developing, and providing opportunities for more individuals from populations who experience health disparities to pursue and advance in scientific careers. An example of this longstanding commitment is the NIMHD Loan Repayment Program (LRP) which provides up to \$50,000 per year in loan repayment awards for health professionals to conduct health disparities or clinical research. More than 50 percent of award recipients are from racial and ethnic minority backgrounds, and awardees reside in 26 states and the District of Columbia.

# Research to Address Vaccine Uptake and Implementation among Populations that Experience Health Disparities

Vaccine hesitancy in racial and ethnic minority communities is linked to various factors including misinformation, distrust, and with the COVID-19 vaccine concerns regarding the speed of development, and lack of information about the ingredients and long-term health effects. Populations with health disparities experience a disproportionate burden of COVID-19 infections, hospitalizations, and mortality, which warrants the NIMHD's commitment to support research and identify strategies to reduce vaccine hesitancy, and promote vaccine access, uptake, and implementation.

In collaboration with other NIH Institutes and Centers, NIMHD launched a new initiative on *Research to Address Vaccine Hesitancy, Uptake, and Implementation among Populations that Experience Health Disparities*. Research projects will examine racial and ethnic differences in beliefs and concerns about vaccines such as the COVID-19, pneumococcal, influenza, hepatitis B, human papilloma virus, and herpes zoster vaccines. NIMHD will also support effective interventions aimed at reducing misinformation, building trust within affected communities, and promoting dissemination of factual, scientific information and vaccine uptake.

There is a need for more research to understand how structural determinants such as the healthcare system or community and societal level factors, as well as intermediary determinants including individual and interpersonal level factors contribute to health disparities. One LRP research project, *Understanding Racial and Ethnic Disparities in Preterm Birth: A Systems Science Approach*, is studying how structural and intermediary determinants generate and perpetuate racial and ethnic preterm birth disparities. The study will use systems modeling to inform the development of interventions to address pre-term birth disparities. Another LRP study, *Development and Pilot Test of a Family-Centered Obesity Prevention Program for Youth and their Parent with Diabetes*, is pilot testing a program involving families residing in rural communities with the goal of preventing obesity among youth ages 8-12, and improving diabetes self-management for parents. These prevention strategies can be important in reducing health disparities in rural communities.

A NIMHD-funded investigator in the NIH Pathway to Independence program will develop an mHealth-based, patient-reported outcome and decision support system to help African American or Black and Hispanic or Latina mothers determine when to seek care for warning signs of maternal morbidity. The *Maternal Outcome Monitoring and Support (MOMS)* study will develop and validate a framework of design requirements for postpartum symptom reporting and

decision support needs. The tool is expected to improve knowledge and self-efficacy for postpartum patients in severe maternal morbidity (SMM) and intensive-acute psychiatric events. NIMHD held the Health Disparities Research Institute (HDRI) for the sixth year in 2021, and continues to provide an intensive week-long research training opportunity for promising early-career scientists in minority health or health disparities. As of August 2021, 332 scholars have participated in the program. There were 62 participants in the 2021 virtual HDRI, and 72 percent of scholars were from a racial or ethnic minority population. The goal is that the training and networking opportunities provided through HDRI will help to prepare attendees to develop and submit competitive research applications to NIH that can be successful in advancing their research career.

NIMHD will continue supporting the *Loan Repayment Program* and offering the *Health Disparities Research Institute*, while strengthening its collaborations with other NIH Institutes, Centers, and Offices to promote and support research career development and advancement for individuals from racial and ethnic minority populations. In addition, the *Clinical Research Education and Career Development (CRECD) Program* will continue to support research educational activities to enhance diversity of the research workforce in clinical and translational sciences.

<u>Budget Policy</u>: The FY 2023 President's Budget request for training is \$22.4 million, an increase of \$10.7 million or 90.7 percent compared with the FY 2022 CR level.

#### **Intramural Research**

The NIMHD Intramural Research Program continues to build a robust research program that is elevating the significance of research on racial and ethnic minority groups and other populations who experience health disparities within the overall NIH intramural research community. The team of investigators, fellows, and trainees, conduct collaborative, transdisciplinary, high-risk and high-impact minority health and health disparities research in population and community health sciences; social and behavioral sciences; and epidemiology and genetics. During the past year, intramural researchers also have made COVID-19 and structural racism and discrimination research priorities.

In one intramural research study, researchers conducted a cross-sectional, nationally representative online survey of 5,500 racial and ethnic minority individuals, Whites, and multiracial adults during the apex of COVID-19 deaths and cases in the United States. The research assessed the impact of COVID-19 emotional well-being, financial hardship, discrimination, delayed health care, and other factors. The first completed analysis focused on *Intent to Obtain a COVID-19 Vaccine by Race or Ethnicity and Language*. Overall, 30 percent of individuals were extremely likely, 22 percent were not at all likely, and 48 percent were unsure regarding their intent to be vaccinated. Compared to Whites, American Indian or Alaska Native, African American or Black, and multiracial respondents were less likely and Asians and Spanish-speaking Hispanics or Latinos were more likely to report being extremely likely to be vaccinated. The overriding concerns identified were side-effects (52 percent) and safety (45 percent). Spanish-speaking Hispanics or Latinos were four times more likely than Whites to intend to be vaccinated, and those who were unsure about their intent were more likely to be

from a racial or ethnic minority group than White. The second completed analysis examined *Experiences of COVID-19-related Discrimination by Race or Ethnicity and Language*. Findings showed that all racial and ethnic minority groups were more likely to experience discrimination related to COVID-19 than White adults. Asian and American Indian and Alaska Native adults were the most likely to experience frequent discrimination. Limited English proficiency was one of the strongest predictors of frequent discrimination. Having less than a high school education, and an annual income of less than \$60,000, residing in a big city or rural community, and residing in the South East Central region were also associated with discrimination.

NIMHD intramural researchers are exploring the impact of discrimination on the health of racial and ethnic minority populations. In one study, researchers used data from the Multi-Ethnic Study of Atherosclerosis to assess *Lifetime and Everyday Discrimination and Risk of Hypertension in a Multi-Ethnic Cohort*. The analysis included 3,297 African American or Black, Hispanic or Latino, Chinese, and White participants aged 45 to 84 years who did not have a hypertension diagnosis at baseline. Over the 16-year follow-up period, 49 percent of participants developed hypertension. After adjustment for age, sex, socioeconomic status, hypertension risk factors, and study site, African American or Black participants reporting any lifetime discrimination (compared with none) were more likely to develop hypertension. In fully adjusted models, everyday discrimination was associated with a lower risk for hypertension among Hispanic or Latino participants. These findings highlight the importance of interventions to address discrimination.

The Intramural Research Program will continue to study COVID-19 and identify strategies to mitigate its impact on populations with health disparities. Examples of this work will include: the Natural History Study of COVID-19 Survivors Using Digital Wearables to collect highresolution physiological data to understand the clinical course of COVID-19 in patients. This study will increase our understanding of COVID-19 before, during, and after symptoms manifest, and our ability to determine which patients are likely to progress to critical stages and those who are likely to suffer prolonged COVID-19 symptoms. The study will include adequate representation of racial and ethnic minority groups. Another study will examine the Impact of COVID-19 and Social Distancing on Physical and Psychosocial Health Disparities among U.S.-born and foreign-born adults, and identify factors that potentially influence these disparities. In addition, the study will examine COVID-19 related coping strategies used by U.S. adults and variation by race, ethnicity, and income. Finally, Is Access to Green, Open Space and Neighborhood Walkability Protective against COVID Infection Risk and Other Changes in *Health Behaviors/Outcomes*? is a collaboration with the National Institute on Nursing Research. This study is examining whether access to green space and walkable neighborhoods are protective against reduced physical activity and increased body weight during the COVID-19 pandemic.

<u>Budget Policy</u>: The FY 2023 President's Budget request for intramural research is \$15.0 million, an increase of \$4.0 million or 36.3 percent compared with the FY 2022 CR level.

#### **Research Management and Support**

Research Management and Support (RMS) provides administrative, budgetary, logistical, and scientific support toward the review, award, and monitoring of researching grants, training awards, and research and development contracts. RMS funds also support strategic planning, coordination, and evaluation of NIMHD programs and coordination and engagement with other Federal agencies, Congress, and the public.

<u>Budget Policy</u>: The FY 2023 President's Budget request for RMS is \$45.0 million, an increase of \$13.6 million or 43.2 percent compared with the FY 2022 CR level. This increase in funding will provide the enhanced program management and administrative support necessary for the significant growth in NIMHD extramural and intramural activity in the President's Budget.

# **Appropriations History**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

# **Appropriations History**

Fiscal Year	<b>Budget Estimate</b>	House	Senate	Appropriation
riscai icai	to Congress	Allowance	Allowance	Appropriation
2014	\$283,299,000		\$281,416,000	\$268,322,000
Rescission				\$0
2015	\$267,953,000			\$269,154,000
Rescission				\$0
2016	\$281,549,000	\$272,493,000	\$287,379,000	\$279,718,000
Rescission				\$0
2017 <sup>1</sup>	\$280,680,000	\$286,446,000	\$292,323,000	\$289,069,000
Rescission				\$0
2018	\$214,723,000	\$293,583,000	\$297,784,000	\$303,200,000
Rescission				\$0
2019	\$280,545,000	\$306,821,000	\$314,845,000	\$314,679,000
Rescission				\$0
2020	\$270,870,000	\$341,244,000	\$330,968,000	\$335,812,000
Rescission				\$0
2021	\$305,498,000	\$348,700,000	\$391,747,000	\$390,865,000
Rescission				\$0
2022	\$652,244,000	\$661,879,000	\$651,101,000	\$390,865,000
Rescission				\$0
2023	\$659,817,000			

<sup>&</sup>lt;sup>1</sup> Budget Estimate to Congress includes mandatory financing.

# **Authorizing Legislation**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

### **Authorizing Legislation**

	PHS Act/ Other Citation	U.S. Code Citation	2022 Amount Authorized	FY 2022 CR	2023 Amount Authorized	FY 2023 President's Budget
Research and Investigation	Section 301	42§241	Indefinite	\$390,865,000	Indefinite	\$659,817,000
National Institute on Minority Health and Health Disparities	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				\$390,865,000		\$659,817,000

# **Amounts Available for Obligation**

# NATIONAL INSTITUTES OF HEALTH

# **National Institute on Minority Health and Health Disparities**

# **Amounts Available for Obligation** <sup>1</sup>

(Dollars in Thousands)

Source of Funding	FY 2021 Final	FY 2022 CR	FY 2023 President's
			Budget
Appropriation	\$390,865	\$390,865	\$659,817
Secretary's Transfer	-\$1,173	\$0	\$0
OAR HIV/AIDS Transfers	\$721	\$0	\$0
Subtotal, adjusted budget authority	\$390,413	\$390,865	\$659,817
Unobligated balance, start of year	\$0	\$0	\$0
Unobligated balance, end of year (carryover)	\$0	\$0	\$0
Subtotal, adjusted budget authority	\$390,413	\$390,865	\$659,817
Unobligated balance lapsing	-\$990	\$0	\$0
Total obligations	\$389,423	\$390,865	\$659,817

Excludes the following amounts (in thousands) for reimbursable activities carried out by this account: FY 2021 - \$4,547 FY 2022 - \$6,000 FY 2023 - \$6,000

# **Budget Authority by Object Class**

#### NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

# Budget Authority by Object Class <sup>1</sup> (Dollars in Thousands)

		FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022
Total cor	npensable workyears:			
	Full-time equivalent	140	210	70
	Full-time equivalent of overtime and holiday hours	0	0	(
	Average ES salary	\$0	\$0	\$0
	Average GM/GS grade	13.5	13.7	0.3
	Average GM/GS salary	\$134	\$139	\$:
	Average salary, Commissioned Corps (42 U.S.C. 207)	\$0	\$0	\$0
	Average salary of ungraded positions	\$0	\$0	\$(
	OBJECT CLASSES	FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022
	Personnel Compensation			
11.1	Full-Time Permanent	\$8,977	\$9,937	
11.3	Other Than Full-Time Permanent	\$3,149	\$3,450	\$30
11.5	Other Personnel Compensation	\$348	\$361	\$1:
11.7	Military Personnel	\$294	\$305	
11.8	Special Personnel Services Payments	\$1,078	\$1,118	
11.9	Subtotal Personnel Compensation	\$13,846	\$15,172	1 7-
12.1	Civilian Personnel Benefits	\$6,048	\$6,923	
12.2	Military Personnel Benefits	\$212	\$220	
13.0	Benefits to Former Personnel	\$0	\$0	7
	Subtotal Pay Costs	\$20,106		
21.0	Travel & Transportation of Persons	\$195	\$199	
22.0	Transportation of Things	\$6	\$6	
23.1	Rental Payments to GSA	\$0	\$0	
23.2	Rental Payments to Others	\$1	\$1	
23.3	Communications, Utilities & Misc. Charges	\$14	\$15	
24.0	Printing & Reproduction	\$0	\$0	
25.1	Consulting Services	\$4,784	\$4,883	
25.2	Other Services	\$7,294	\$22,339	\$15,04
25.3	Purchase of Goods and Services from Government Accounts	\$21,710	\$30,881	\$9,17
25.4	Operation & Maintenance of Facilities	\$20	\$20	
25.5	R&D Contracts	\$4,415	\$4,914	
25.6	Medical Care	\$10	\$10	\$0
25.7	Operation & Maintenance of Equipment	\$779	\$796	
25.8	Subsistence & Support of Persons	\$0	\$0	\$(
25.0	Subtotal Other Contractual Services	\$39,012	\$63,844	
26.0	Supplies & Materials	\$63	\$64	
31.0	Equipment	\$584	\$596	1
32.0	Land and Structures	\$0	\$0	
33.0	Investments & Loans	\$0	\$0	
41.0	Grants, Subsidies & Contributions	\$330,886	\$572,777	\$241,89
42.0	Insurance Claims & Indemnities	\$0	\$0	\$
43.0	Interest & Dividends	\$0	\$0	\$
44.0	Refunds	\$0	\$0	\$
	Subtotal Non-Pay Costs	\$370,759	\$637,502	\$266,74

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

# **Salaries and Expenses**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

# **Salaries and Expenses** (Dollars in Thousands)

Object Classes	FY 2022 CR	FY 2023 President's Budget	FY 2023 +/- FY 2022
Personnel Compensation		<u> </u>	
Full-Time Permanent (11.1)	\$8,977	\$9,937	\$960
Other Than Full-Time Permanent (11.3)	\$3,149	\$3,450	\$302
Other Personnel Compensation (11.5)	\$348	\$361	\$13
Military Personnel (11.7)	\$294	\$305	\$11
Special Personnel Services Payments (11.8)	\$1,078	\$1,118	\$40
Subtotal, Personnel Compensation (11.9)	\$13,846	\$15,172	\$1,327
Civilian Personnel Benefits (12.1)	\$6,048	\$6,923	\$875
Military Personnel Benefits (12.2)	\$212	\$220	\$8
Benefits to Former Personnel (13.0)	\$0	\$0	\$0
Subtotal Pay Costs	\$20,106	\$22,315	\$2,210
Travel & Transportation of Persons (21.0)	\$195	\$199	\$4
Transportation of Things (22.0)	\$6	\$6	\$0
Rental Payments to Others (23.2)	\$1	\$1	\$0
Communications, Utilities & Misc. Charges (23.3)	\$14	\$15	\$0
Printing & Reproduction (24.0)	\$0	\$0	\$0
Other Contractual Services			
Consultant Services (25.1)	\$4,784	\$4,883	\$99
Other Services (25.2)	\$7,294	\$22,339	\$15,045
Purchase of Goods and Services from Government Accounts (25.3)	\$15,118	\$15,321	\$202
Operation & Maintenance of Facilities (25.4)	\$20	\$20	\$0
Operation & Maintenance of Equipment (25.7)	\$779	\$796	\$17
Subsistence & Support of Persons (25.8)	\$0	\$0	\$0
Subtotal Other Contractual Services	\$27,995	\$43,359	\$15,363
Supplies & Materials (26.0)	\$63	\$64	\$1
Subtotal Non-Pay Costs	\$28,274	\$43,643	\$15,370
Total Administrative Costs	\$48,379	\$65,958	\$17,579

# **Detail of Full-Time Equivalent Employment (FTE)**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

## **Detail of Full-Time Equivalent Employment (FTE)**

Ore:	F	Y 2021 Fin	ıal	I	TY 2022 CI	R	FY 2023 President's		s Budget
Office	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
D									
Division of Intramural Research			_	10	1	12	1.7		1.0
Direct:	6		7	12	!!	13	1	1 1	18
Total:	6	1	7	12	1	13	17	1	18
Office of the Director									
Direct:	40	-	40	103	1	104	168	1	169
Total:	40	-	40	103	1	104	168	1	169
Division of Integrative Biological and Behavioral									
Sciences									
Direct:	6	1	7	5	_	5	5		5
Total:	6	1	7	5	-	5	5	-	5
Division of Community Health and Population									
Sciences									
Direct:	7	1	8	9	1	10	9	1	10
Total:	7	1	8	9	1 1	10	9		10
Division of Clinical and Health Services Research									
Direct:	6		6	8		8	8		8
Total:	6		6	0	]	0	0	-	0
iotai.	"		0	0	]	0	°	-	0
Division of Scientific Programs									
Direct:	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	-	-	-
Division of Data Management and Scientific									
Reporting									
Direct:	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	-	-	-
Reimbursable									
Reimbursable:		_	_	_	_	_	_	_	_
Total:	-	-	-	-	-	-	-	-	-
Total	65	3	68	137	3	140	207	3	210
Total Includes FTEs whose payroll obligations are support		-		137	)	140	207	3	210
FTEs supported by funds from Cooperative Research								Γ	
and Development Agreements.	0	0	0	0	0	0	0	0	0
FISCAL YEAR				Avo	rage GS G	rada			
FIDCAL TEAR				Ave	age GO G	1 auc			
2019					13.1				
2020					13.0				
2021					13.0				
2022					13.5				
2023					13.7				

## **Detail of Positions**

# NATIONAL INSTITUTES OF HEALTH National Institute on Minority Health and Health Disparities

#### **Detail of Positions**<sup>1</sup>

CDADE	EW 2021 Et	FY 2022 CR	FY 2023
GRADE	FY 2021 Final	FY 2022 CR	President's Budget
Total, ES Positions	0	0	0
Total, ES Salary	\$0	\$0	\$0
General Schedule			
GM/GS-15	9	14	14
GM/GS-14	22	50	116
GM/GS-13	17	27	27
GS-12	3	6	6
GS-11	1	1	1
GS-10	0	0	0
GS-9	1	1	1
GS-8	3	3	3
GS-7	2	2	2
GS-6	0	0	0
GS-5	0	0	0
GS-4	o	0	0
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	58	104	170
Commissioned Corps (42 U.S.C.			
207)			
Aitt S		0	0
Assistant Surgeon General	0	0	0
Director Grade	1	1	1
Senior Grade	1	1	1
Full Grade	1	1	1
T un Grade	1	1	1
Senior Assistant Grade	o	0	0
		-	
Assistant Grade	0	0	0
			0
Subtotal	3	3	3
Ungraded	23	33	37
Total permanent positions	58	90	90
lotal permanent positions	30	90	90
Total positions, end of year	84	140	210
Total full-time equivalent (FTE)	68	140	210
employment, end of year			
Average ES salary	\$0	\$0	
Average GM/GS grade	13.0	13.5	13.7
Average GM/GS salary	\$130,024	\$133,951	\$138,963

<sup>&</sup>lt;sup>1</sup> Includes FTEs whose payroll obligations are supported by the NIH Common Fund.