



NIMHD Perspectives

March 1, 2023

Health Disparities Among Sexual and Gender Minorities
NIMHD Scientific Workshop

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NIH National Institute
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Populations with Health Disparities

- **Racial and ethnic minority populations in census**
- **Less privileged socio-economic status**
- **Underserved rural residents**
- **Sexual and gender minorities**
- **Social disadvantage that results in part from being subject to discrimination or racism, and being underserved in health care**
- **A health outcome that is worse in these populations *compared to a reference population group* defines a health disparity**



What Can Science Do to Reduce Inequities?

- **Standardized measurement of social and demographic factors that affect health**
- **Facilitate discovery science with big data**
- **Be an engine for promoting diversity of the scientific and clinical workforce**
- **Cultivate community engagement and build trust for sustainable relationships**
- **Implement what we know can work to promote health equity**



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Less Obesity in Youth by Education Level of Head of Household, College vs. <HS, US, 2011-2014

	% Males	% Females
Whites	7.3%	15.0%
Blacks	6.6%	4.7%
Latinos	11.5%	9.9%
Asian	9.0%	5.9%

MMWR February 16, 2018; 67: 186-189



Tobacco Use in the U.S., Age ≥ 18 y, 2019

Race/ethnicity	Combustible	E-Cigs
AI/AN	22.3%	N/A
Black	18.6%	3.4%
White	18.3%	5.1%
Latino	11.2%	2.8%
Asian	8.6%	2.7%
Other	22.0%	9.3%
Lesbian, gay, bisexual	22.7%	11.5%
High school diploma	21.9%	4.3%
Undergraduate degree	10.0%	3.2%

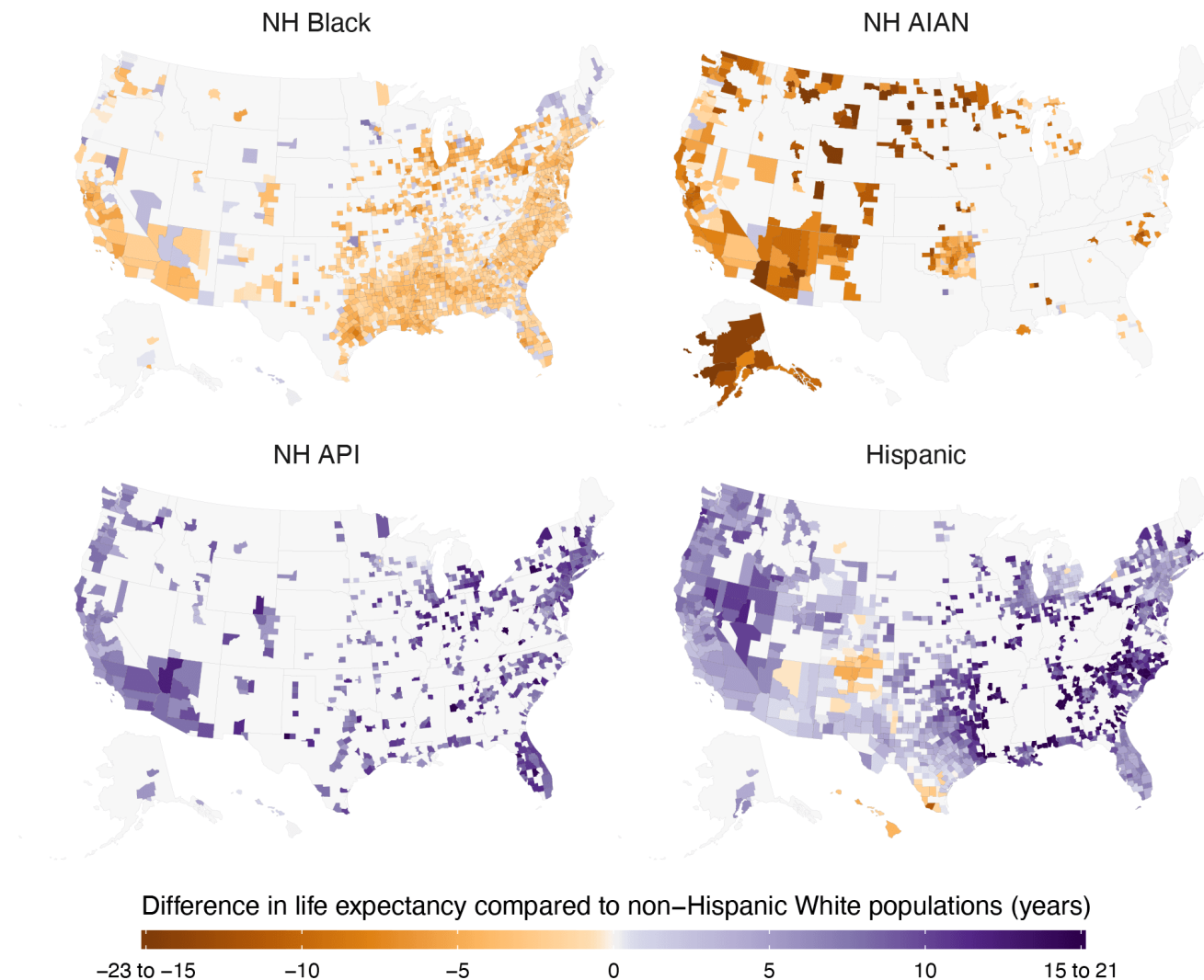
National Health Interview Survey, MMWR-November 20, 2020; 69(46);1736-1742



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Differences in Life Expectancy by County and Race/Ethnicity, US, 2000-2018



Social Determinants of Health Measures

- **PhenX Toolkit on SDOH measures:**
<https://www.phenxtoolkit.org/collections/view/6>
- **Demographics including family background**
- **Urban or rural residence or geographic region**
- **Cultural identity, religiosity, spirituality**
- **Language proficiency, Literacy, numeracy**
- **Structural determinants:** housing, green space, broadband, economic opportunity, transportation, schools, healthy food access, public safety, political

National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence <i>(Over the Lifecourse)</i>	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		 Individual Health	 Family/ Organizational Health	 Community Health	 Population Health

National Institute on Minority Health and Health Disparities, 2018

*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual/Gender Minority

Other Fundamental Characteristics: Sex/Gender, Disability, Geographic Region

Perception of Unfair Treatment: 2015

In past 30 days, were you treated unfairly because of racial or ethnic background in store, work, entertainment place, dealing with police, or getting healthcare?

	Percent Agree	
	All	Health
Latinos	36%	14%
African Americans	53%	12%
Whites	15%	5%

Trust in clinician/institution? Role of Unconscious Bias?

Kaiser Family Foundation Survey of Americans on Race, November 2015.



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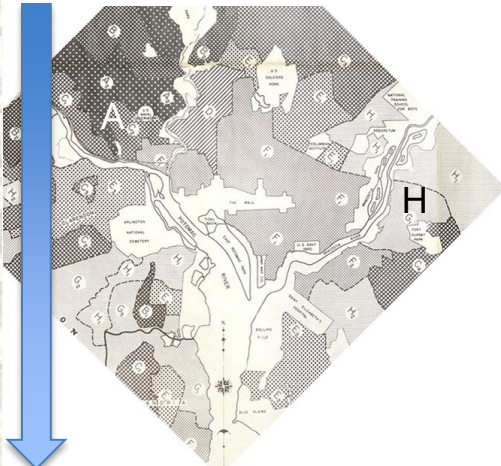


Historical Redlining Policies Influence Social Segregation and Trajectory of Health Outcomes in D.C.

Federal Housing Administration Residential Market Analysis, 1937

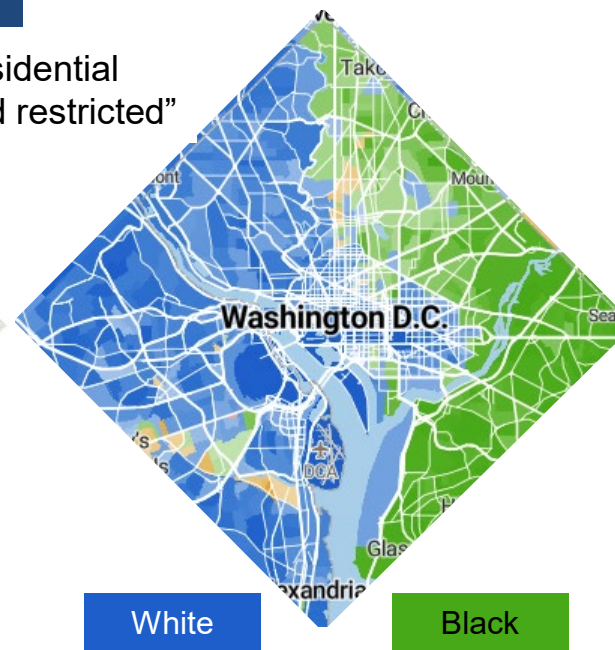


Type A – “Highest grade of residential property ... well controlled and restricted”



Type H – “Represents negro developments and lowest grade”

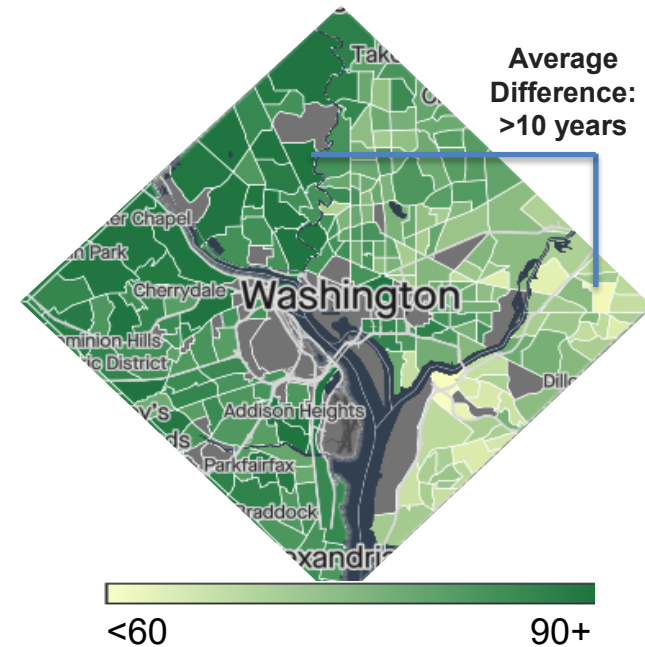
Majority Race by Area, 2020



White

Black

Average Life Expectancy, 2018



Average Difference: >10 years

<60

90+

Diversity in Science and Medicine

- **Develop a diverse clinical workforce that will care for our patients: >50%**
- **Develop a diverse biomedical scientific workforce that will conduct *better* research in all areas of science**
- **Engage under-represented populations to participate in research**
- **Equal inclusion of people from all backgrounds especially those viewed differently because of exclusionary practices**



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2023 Health Disparities Research Institute

Applications accepted February 6 – March 13, 2023

- Week-long intensive and engaging training experience
- Aims to support the research career development of promising early-stage investigators interested in minority health/health disparities research

Health Disparities Research Institute

August 7-11, 2023

Applications Accepted
February 6 – March 13, 2023

Apply today!!

Questions: HDRI@nih.gov

[Learn more](#)



NIMHD Funding on SGM Research

Fiscal Years 2021-2022

- **67 direct awards made over 2 years**
- **16 awards in collaboration with other ICs— NHLBI, NICHD, NIMH**
- **\$44.033 Million**
- **SOGI measures added to HCHS/SOL and MESA Cohorts**
- **Ascertainment of population needed for inclusion and diversity goals**

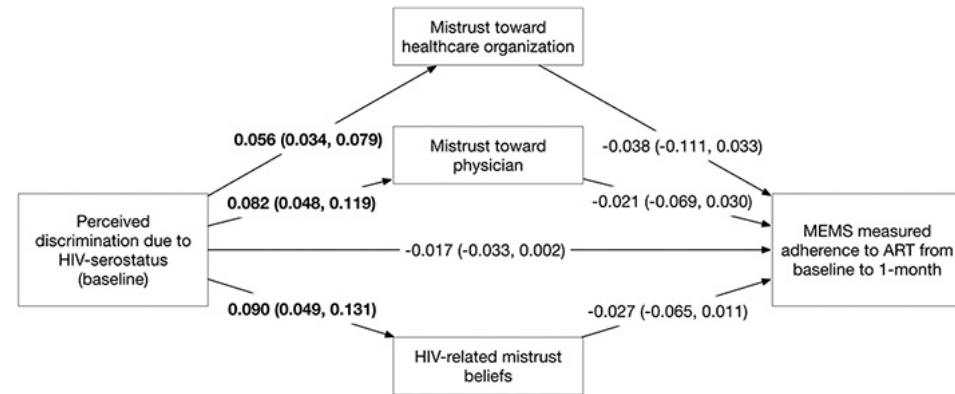


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How Discrimination and Medical Mistrust Contributes to HIV Inequities Among Blacks

- 304 Black adults with HIV were recruited from AIDS Project Los Angeles Health between January 2018 to July 2020 (81% men; 74% sexual minority; Average age = 48 years)
- Examined the associations of medical mistrust with perceived discrimination (intersectionality of HIV serostatus, minority race, sexual minority orientation), poor antiretroviral therapy (ART) adherence and lower care engagement among U.S. Black adults with HIV
- Significant effects of perceived discrimination on ART adherence and care engagement through medical mistrust was observed

Addressing mistrust among clinicians may improve ART adherence and care for Black adults living with HIV



Total indirect effects: -0.006, 95% Bootstrap CI: -0.012, -0.002

Grant No. R01MD014722

Dong, L., et al., *J Behav Med*. 2022.



What if My Parents Find Out?!

Parents as Barriers to PrEP Uptake

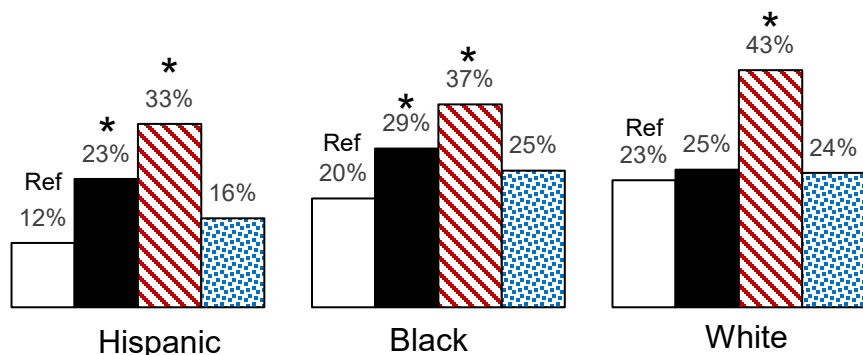
- Pre-exposure prophylaxis (PrEP) now has FDA approval for use among adolescents
- Surveyed 491 racially/ethnically diverse adolescent MSM (ages 13-18) participating in the SMART HIV prevention trial regarding attitudes about PrEP
- 55% of participants had heard of PrEP, but only 4% had ever taken it
- The most common reason for not using PrEP (32%) was concern about parents finding out
 - 61% thought their parents would not be supportive
 - 68% reported feeling awkward, fearful, or unable to discuss taking PrEP with their parents
- Improving parental knowledge of PrEP and encouraging parents to initiate conversations about PrEP could help increase uptake in adolescent MSM



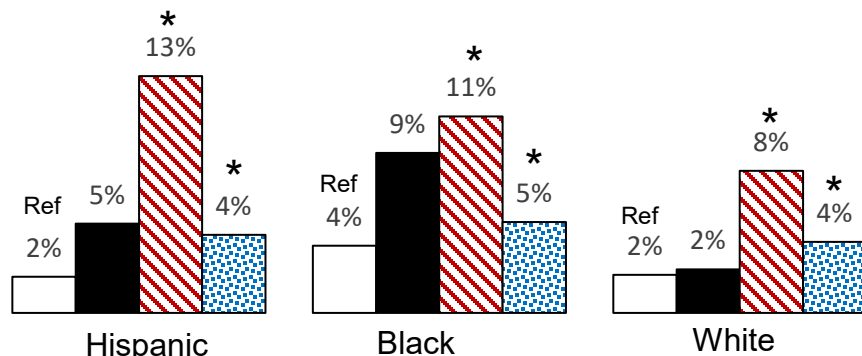
Variations in Substance Use and Disorders Among Sexual Minorities by Race/Ethnicity

- Examined associations between sexual minority status and substance use and disorders of tobacco, alcohol, and marijuana using the 2012-2013 National Epidemiological Survey on Alcohol and Related Conditions-III (n=35,981)

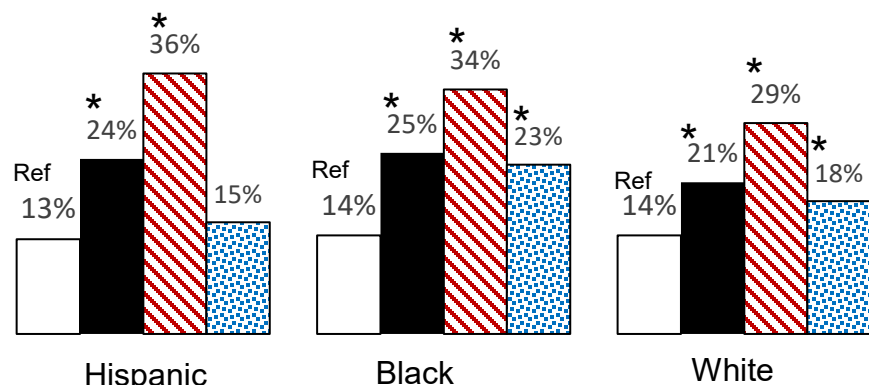
Prevalence of Tobacco Use Disorder (TUD)



Prevalence of Cannabis Use Disorder (CUD)



Prevalence of Alcohol Use Disorder (AUD)



Heterosexual
 Gay/Lesbian
 Bisexual
 Conflicting

- Gay/lesbian and bisexual Latino and Black adults had higher prevalence of TUD compared to their heterosexual counterparts, but only bisexual Whites smoked more than their heterosexual counterparts.
- Bisexual Latino, Black, and White adults often had higher prevalence of AUD and CUD than their gay/lesbian counterparts.
- Effective interventions tailored to race/ethnicity and sexual orientation may be needed



Research Topics of Funded Studies

- **Transgender women's health**
- **Mental health and substance use**
- **Interpersonal violence**
- **Youth behavior and digital world**
- **Effects of discrimination**
- **HIV risk and infection management**
- **Policy effects — insurance, immigration**
- **COVID-19 effects**

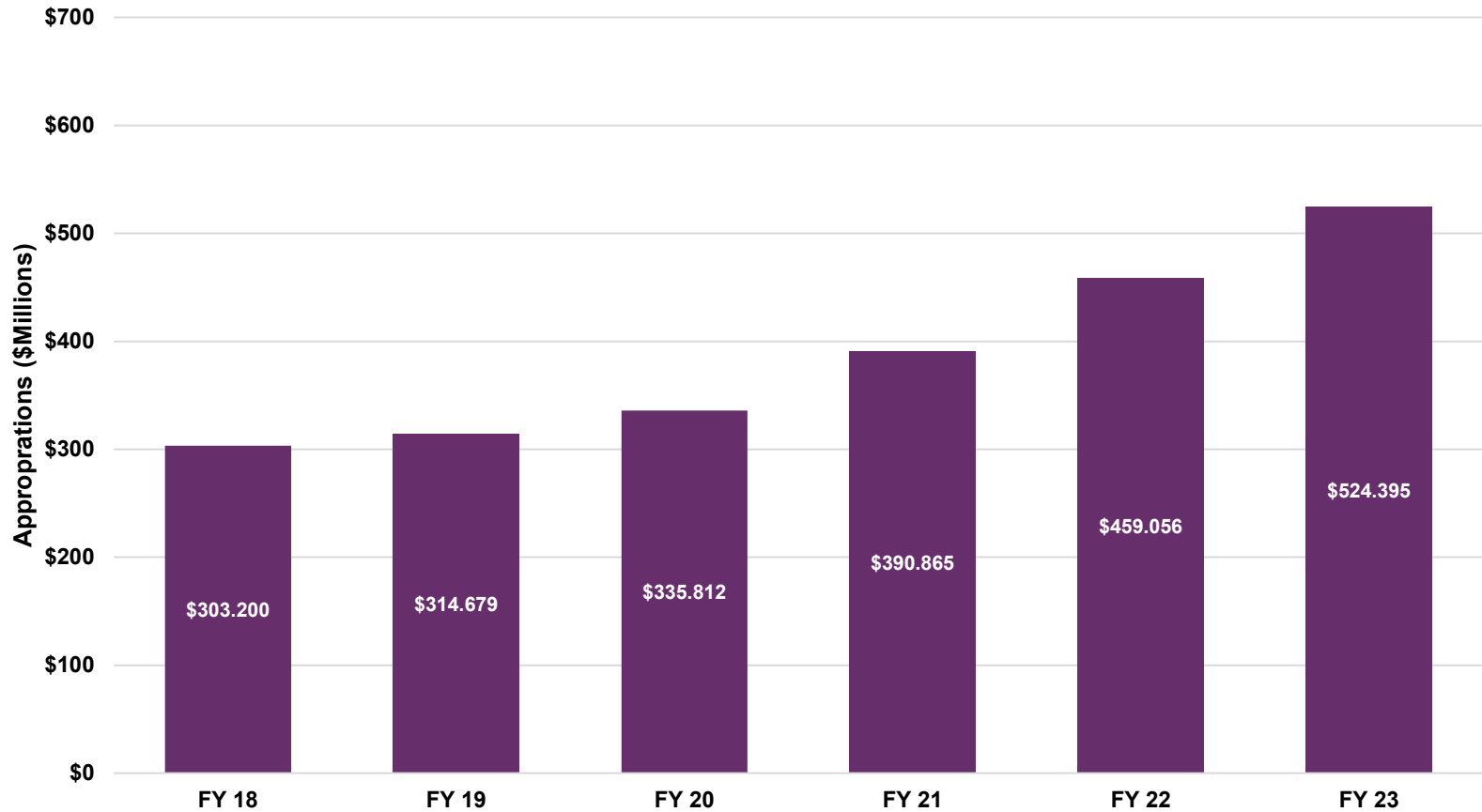


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NIMHD Appropriations, 2018 to 2023

NIMHD Appropriations by Fiscal Year



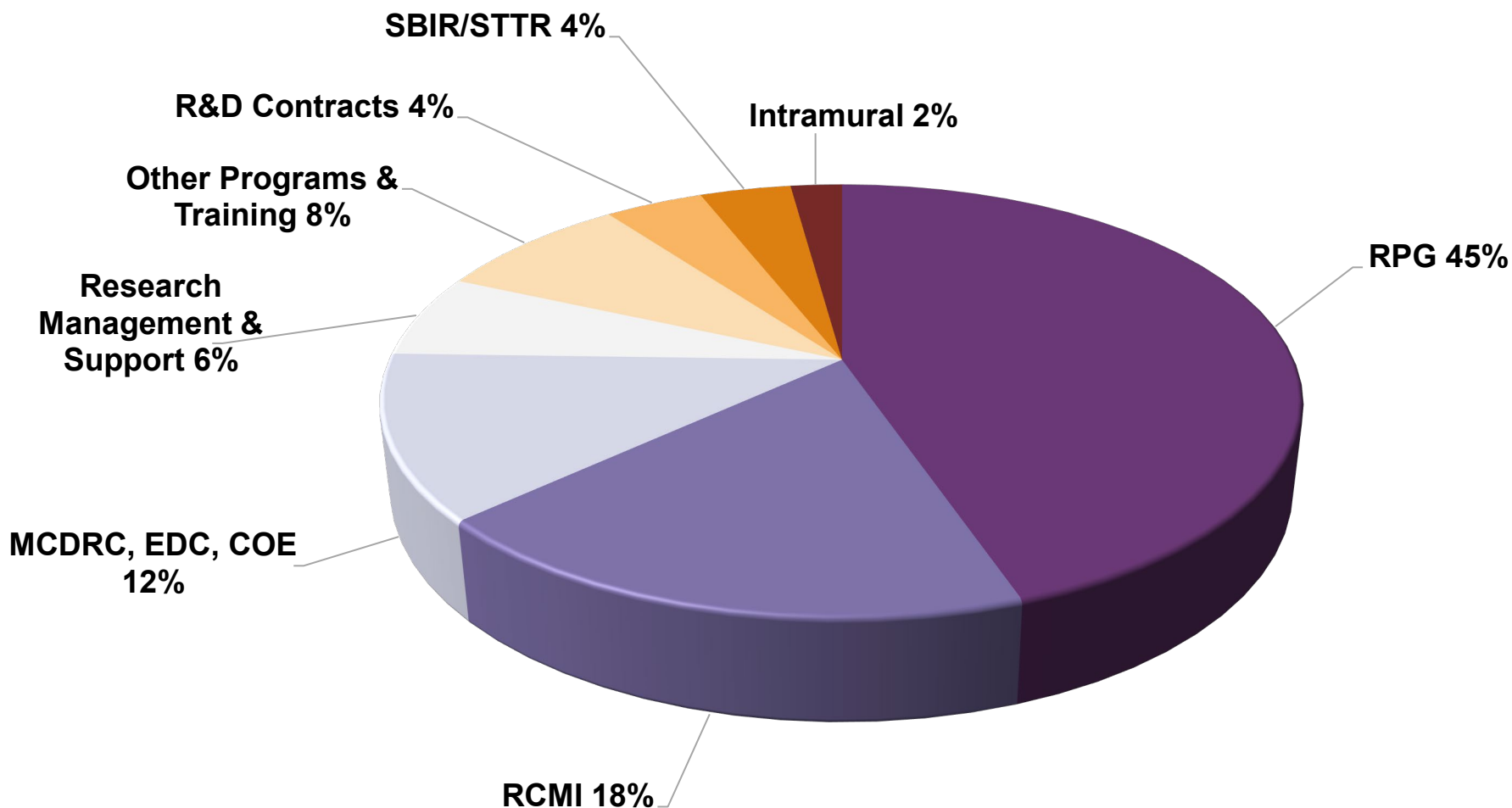
FY2023 Omnibus spending bill signed into law on December 29, 2022



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FY 2022 Funding Distribution Categories



NIMHD R01 Applications and Award Rate

FY	# of R01 applications	# of R01 awards	Success Rate %
2022	546	100	18.3%
2021	494	64	13.0%
2020	437	42	9.6%
2019	394	41	10.4%
2018	281	39	13.9%
2017	227	59	26.0%
2016	124	33	26.6%

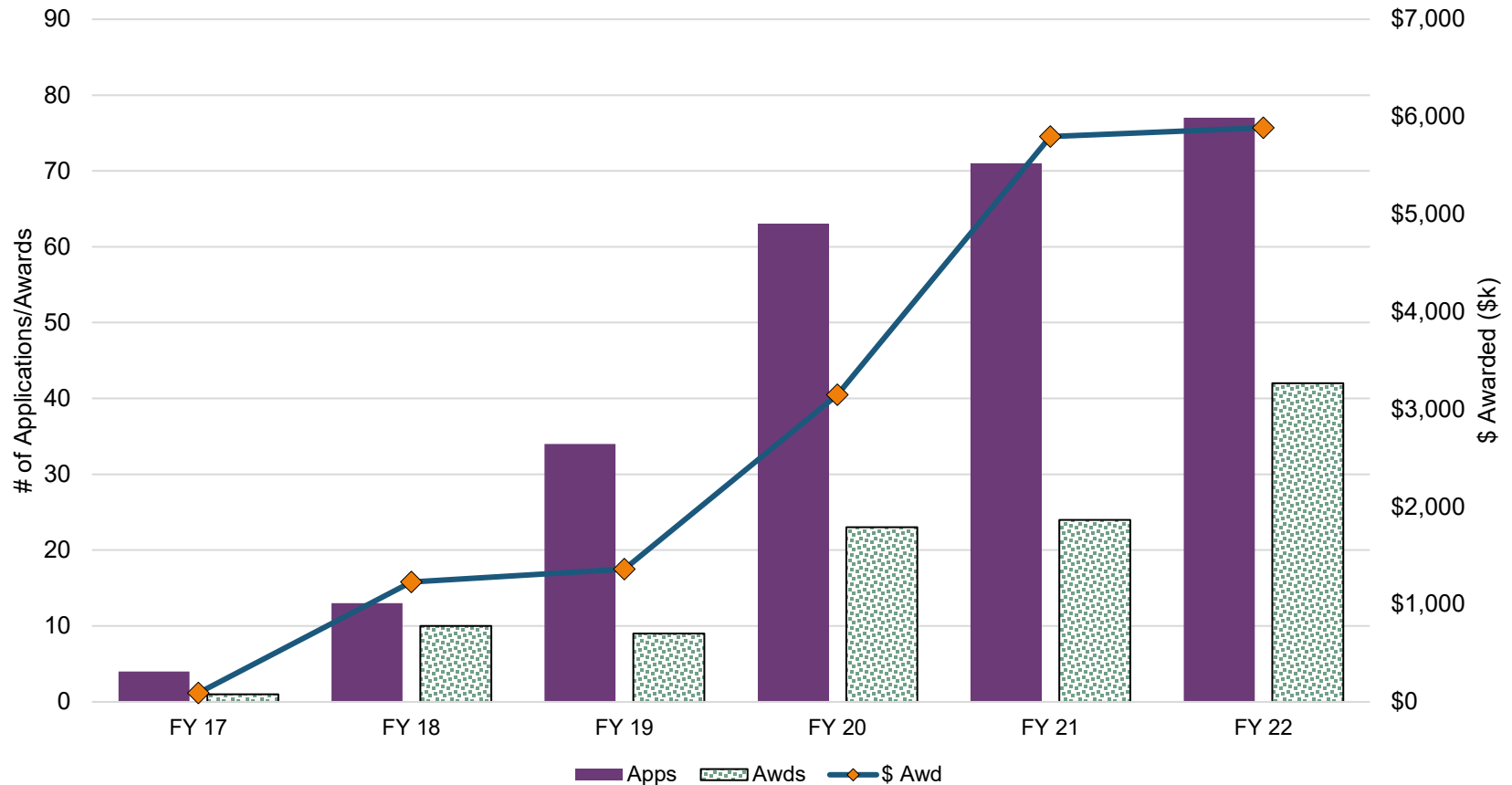


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Growing Interest in Career Development Awards – K01, K08, K23, K99

FY17-FY22 Competing Career (K) Applications and Awards



Future Research Directions

- **Multi-level interventions needed**
- **Emphasis on intersectionality**
- **Identify mechanisms: biological pathways, social determinants, individual behavior, environment, health system**
- **Assess specific communication strategies between patients-clinicians — trust**
- **Implement structural change to modify individual and group behaviors**



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