



Director's Report

National Advisory Council on Minority Health and Health Disparities

September 4, 2020

Eliseo J. Pérez-Stable, M.D.

Director, National Institute on
Minority Health and Health Disparities

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National Institute
on Minority Health
and Health Disparities

Remembering James S. Jackson, Ph.D.

1944 – 2020

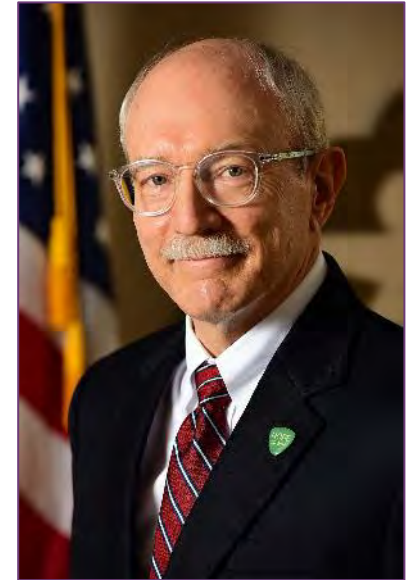
- Founded the *Program for Research on Black Americans*
 - Aims to address the need for high quality national data on African Americans
 - Strives to provide research and training opportunities for social scientists and students of color
- Leader in academia and served on numerous committees
 - Principal Investigator on the National Survey of Black Americans
 - Director of the Institute for Social Research, and the Center for African and African American Studies, University of Michigan
 - Member of the National Science Board
 - Member, National Academy of Medicine
 - Past president of the Association of Black Psychologists and Society for the Psychological Study of Social Issues
 - Advisory Council Member, National Institute on Aging
 - 2018 NIMHD Ad Hoc Advisory Council Member



Director, National Institute of Environmental Health Sciences (NIEHS)

Rick P. Woychik, Ph.D.

- Served as the NIEHS Acting Director since October 2019 and officially began his new role as the NIEHS Director on June 7, 2020
- Since 2010, was the NIEHS Deputy Director and led the institute's strategic planning exercises and guided implementation of the plans across a broad range of scientific disciplines
- Highly respected for his many accomplishments in mammalian genetics and environmental epigenetics



Director, National Institute of Nursing Research (NINR)

Shannon N. Zenk, Ph.D., M.P.H., R.N., F.A.A.N.

- Comes to NIH from the University of Illinois at Chicago (UIC) College of Nursing, where she was the Nursing Collegiate Professor in the Department of Population Health Nursing Science
- Research focuses on social inequities and health with a goal of identifying effective, multi-level approaches to improve health and eliminate racial/ethnic and socioeconomic health disparities
- Elected as a fellow of the American Academy of Nursing in 2013 and was inducted into the International Nurse Researchers Hall of Fame in 2019
- Intramural lab will be hosted by the NIMHD Division of Intramural Research



Director, National Eye Institute (NEI)

Michael F. Chiang, M.D.

- Knowles Professor of Ophthalmology & Medical Informatics and Clinical Epidemiology at Oregon Health & Science University (OHSU) and Associate Director of the OHSU Casey Eye Institute
- Research involves telemedicine and artificial intelligence for diagnosis of retinopathy of prematurity and other ophthalmic diseases, implementation and evaluation of electronic health record systems, modeling of clinical workflow and data analytics
- Expected to begin his new role as the NEI director in late 2020



Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Lindsey A. Criswell, M.D., M.P.H., D.Sc.

- Comes to NIH from the University of California, San Francisco (UCSF), where she is a professor of rheumatology in UCSF's Department of Medicine, as well as a professor of orofacial sciences in its School of Dentistry
- Research focuses on the genetics and epidemiology of human autoimmune disease, particularly rheumatoid arthritis and systemic lupus erythematosus, and contributed to the identification of more than 30 genes linked to these disorders
- Expected to begin her new role as the NIAMS director in early 2021



Director, National Institute of Dental and Craniofacial Research (NIDCR)

Rena N. D'Souza, D.D.S., M.S., Ph.D.

- Comes to NIH from the University of Utah, Salt Lake City, where she is the assistant vice president for academic affairs and education for health sciences
- Research focuses on developmental biology and genetics; matrix biology; biomaterials, tissue engineering and stem cells; and clinical research
- Her group's discovery that a novel mutation in the *PAX9* gene was responsible for a severe form of human tooth agenesis opened a new field of research to discover genes and mutations as well as therapies for common human inherited disorders of the craniofacial complex
- Expected to begin her new role as the NIDCR director late in 2020



NACMHD Member Joins CDC Foundation Board of Directors

Amelie Ramirez, Dr.P.H., M.P.H.

Professor and chair of the Department of Population Health Sciences and director of the Institute for Health Promotion Research at UT Health San Antonio

- Elected to a five-year term on the CDC Foundation Board of Directors



NIH COVID-19

Information for Applicants and Recipients

CORONAVIRUS DISEASE 2019 (COVID-19)

Information for Applicants and Recipients



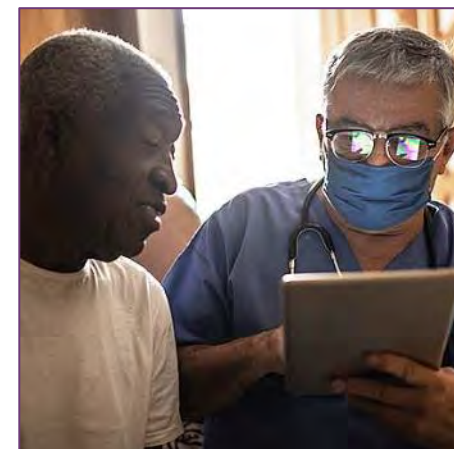
**Stay Up
to Date**

- This is a rapidly evolving situation
- Visit the NIH grants page often for the latest updates

<https://grants.nih.gov/policy/natural-disasters/corona-virus.htm>

Rapid Acceleration of Diagnostics for Underserved Populations (RADx-UP)

- **Budget: \$500 Million over 4 years**
- Understand the factors associated with disparities in COVID-19 morbidity and mortality
- Lay the foundation to reduce disparities for those underserved and vulnerable populations disproportionately affected by, have the highest infection rates of, and/or are most at risk for complications or poor outcomes from the pandemic
- Coordination and Data Collection Center U24 at NIMHD



<https://www.nih.gov/research-training/medical-research-initiatives/radx/radx-programs>



Community Engagement Research Alliance Against COVID-19 Disparities (CEAL)

- Address issues misinformation in communities of color
- Build an understanding of trust in science
- Accelerate the uptake of beneficial treatments and approaches to control the COVID-19 pandemic
- Conduct urgent community engaged research and outreach focused on COVID-19 awareness and education
- Promote and facilitate inclusion of diverse racial and ethnic populations in clinical trials —vaccines, and therapeutics
- *Initial target of 11 States: Research study sites, FQHCs, Federal partners and national and community-based organizations*



NIMHD Updates



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NIMHD Staff Updates: New Hires

- **Corinne Baker**, Digital Content Manager, Office of Communications and Public Liaison
- **Luca Calzoni, M.D., Ph.D. Candidate**, Physician/Biostatistician, Office of the Director
- **Renita Saltibus, M.S.**, Operations Coordinator, Office of the Director
- **Matthew Houle**, Ethics Specialist, Office of the Director
- **Jacqueline Santel, M.D.**, Physician, Division of Scientific Programs



Baker



Calzoni



Saltibus



Houle



NIMHD Staff Transitions

- **Kenneth Sonnenberg, M.B.A.**, Budget Officer, Office of Administrative Management



- **Deborah Duran, Ph.D.**, Senior Advisor - Data Science, Analytics and Systems, Office of the Director



NIMHD Division of Intramural Research

Stadtman Tenure Track Investigators

- **Leonardo Mariño-Ramírez, Ph.D.**
Stadtman Tenure-Track Investigator
Epidemiology and Genetics Group
- **Allana Forde, Ph.D., M.P.H.,**
Stadtman Tenure-Track Investigator
Epidemiology and Genetics Group
- **Harold W. Neighbors, Ph.D.**
Senior Advisor
Division of Intramural Research



Senior Investigator Appointment

Kelvin Choi, Ph.D., M.P.H.

- **First NIMHD investigator to become tenured!**
- Investigates disparities in tobacco use and tobacco product use patterns among minority populations



Julia Chen-Sankey, Ph.D., M.P.P., Postdoctoral Fellow

Pathway to Independence Award in Tobacco Regulatory Research

- Received a K99/R00 Pathway to Independence Award in Tobacco Regulatory Research; “Understanding the Influence of E-cigarette Advertisement Features”
- Award provides 24 months of postdoctoral training and mentorship with NIMHD Senior Investigator, Dr. Kelvin Choi, and guidance on transitioning to a tenure-track position with funding

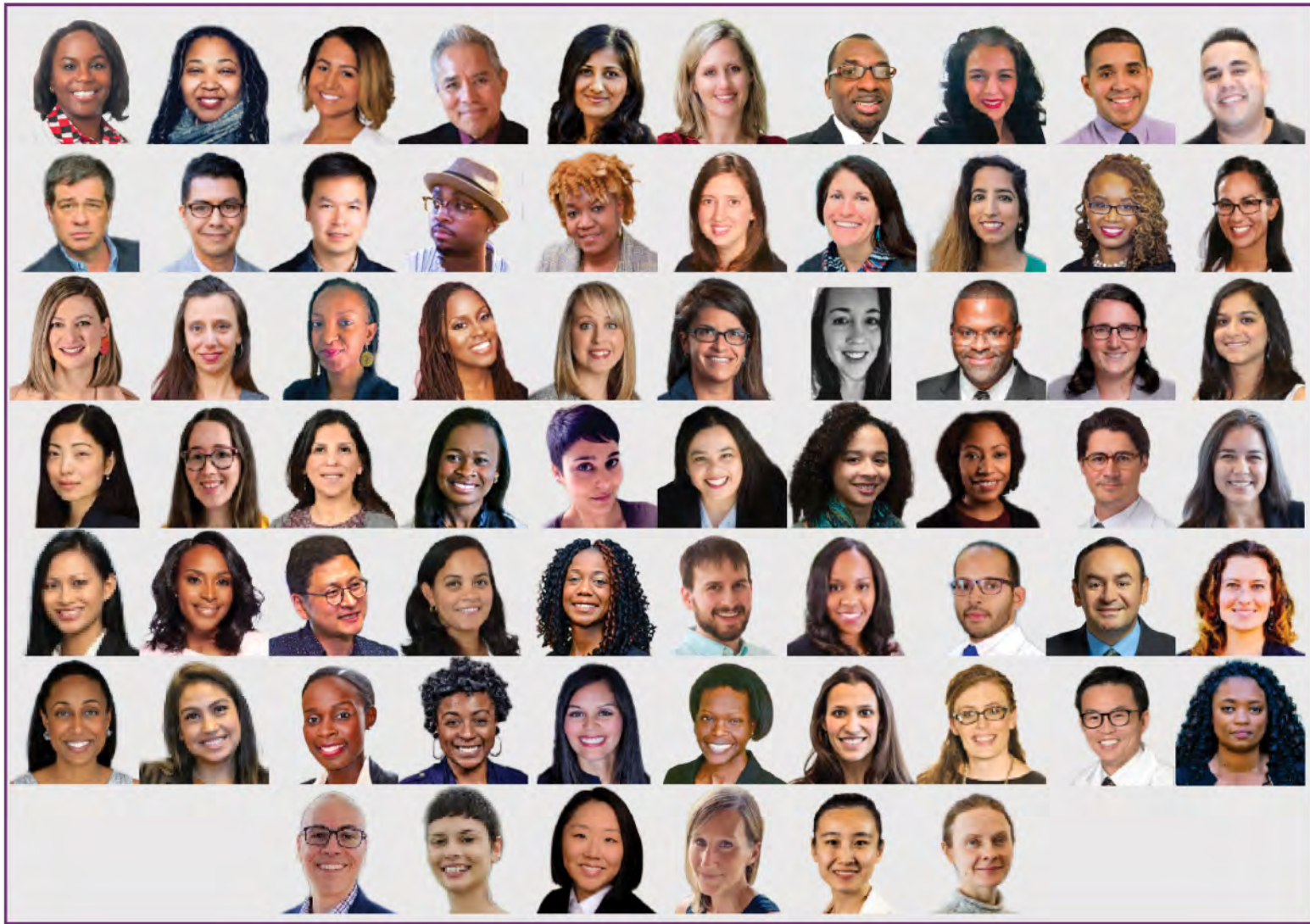


Matilda White Early Stage Investigator Paper Awardees

- National award to recognize emerging scientists with a competition for peer-reviewed articles by Early Stage Investigators
- Presented award-winning paper “E-cigarette Marketing and Experimentation Among Youth and Young Adult” at the NIH Matilda White Riley Honor Event on June 8, 2020



2020 Health Disparities Research Institute



NIH

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2020 HDRI Held Virtually August 3-6

- 232 applications reviewed
- 66 early-stage career scientists selected to participate
- Participants represented 24 states, District of Columbia, and Puerto Rico
- Sessions and activities focused on developing knowledge and skills that will assist early-stage investigators towards independent researcher careers

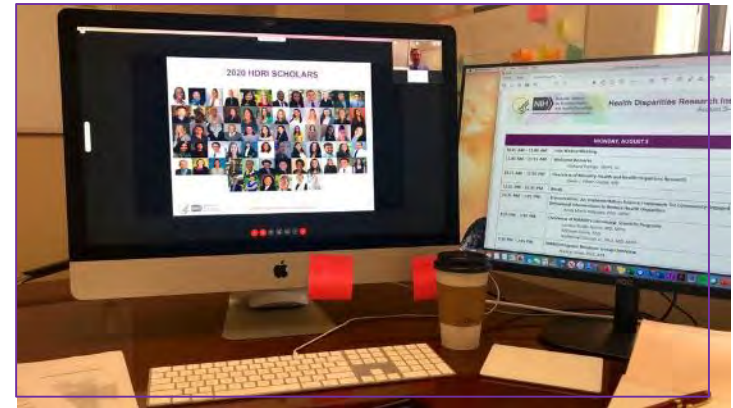
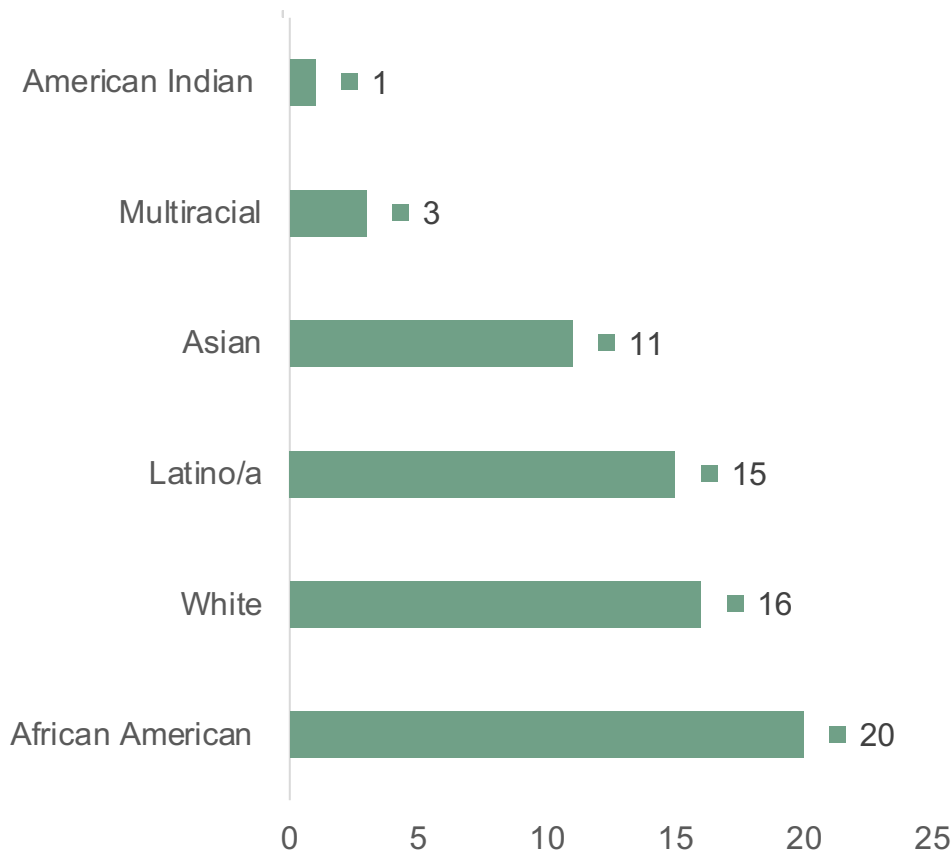


Photo Credit: Tessa Hastings



2020 HDRI Cohort Summary (N=66)



	N	%
Gender		
Women	50	76
Men	16	24
Degree		
PhD/ScD/DrPH	54	82
MD/DO	12	18
Position/Title		
Postdoctoral Fellow	9	13
Assistant Professor	44	67
Associate Professor	2	3
Other Scientific Position	11	17



2020 Virtual Postbac Poster Day NIH Intramural Research Trainees



Postbac Presenters:

Top Row: Charmaine Chan, Jackie Bonilla, Sangheon Lee, Isaiah Brown, Koya Ferrell, and Aniruddh Ajith

Bottom Row: Aaron Broun, Danielle Duarte, Toluwa Omole, Saida Coreas, and Zahra Ansari



Legislative Update

- **05.13.2020:** Briefed Senator Lisa Murkowski (R-AK) on RADx-UP with Drs. Richard Hodes and Francis Collins
- **05.22.2020:** Briefed Senator Bill Cassidy (R-LA) on RADx-UP with NIH Leadership
- **07.23.2020:** Participated in a telebriefing for the pending COVID-19 Vaccine Trials with Members and staffers of the Congressional Asian Pacific American Caucus, Congressional Black Caucus, Congressional Hispanic Caucus, and the Native American Caucus with NIH Leadership and Dr. Gary Gibbons
- **08.04.2020:** Gave welcome remarks at the Friends of NIMHD virtual meeting and shared NIMHD priorities as well as the initiatives developed due to the COVID-19 pandemic



Director's Virtual Presentations

- Advisory Committee to the Director: Rapid Acceleration of Diagnostics for Underserved Populations (RADx) (06.11.2020)
- AAMC Grand Rounds Professional Development Conference (07.09.2020)
- Chronic Disease Day, Good Days (07.10.2020)
- Society of General Internal Medicine (SGIM); Plenary 1: Civil Rights and Health Disparities (OnDemand)
- Research America - Research!America Alliance Member Call (07.27.2020)
- Jackson Heart Study Students - NIH 2020 summer visit: Tougaloo College students Jackson Heart Study Scholars (07.28.2020)
- Health Disparities Research Institute Virtual Meeting; Keynote (08.03.2020)
- Practice Based Research Network Virtual Conference – NIH Panel (08.13.2020)



Director's Virtual Activities

Blog Posts

- Spotlight on COVID-19 and Health Disparities (05.26.2020)
- Racism and the Health of Every American (06.12.2020)

Interviews

- New Americans Media: [Saving Minorities: Preparing for a second wave of COVID-19](#) (05.27.2020)
- Face Book Live [Good Days Briefing, Chronic Disease Day](#) (07.10.2020)
- ABC News: [As vaccines move into phase 3 trials, diversity must be at top of agenda](#) (08.02.2020)
- [Uncomfortable Conversation Series with Rev. Rebekah Simon-Peter](#) (08.05.2020)



National Minority Mental Health Awareness Month

NIMHD Blog Series

- Hosted a blog series for the month of July to discuss the impact mental health has on minority populations

BYOMM Partner Omega Psi Phi Fraternity, Inc (OPPF) Virtual Chat

- July 28 at 8:00 p.m. ET, our partner OPPF joined Delta Sigma Theta Sorority, Inc., to co-host a fireside chat on how Black men and women can best support one another with mental and emotional well-being



NIMHD's 10th Anniversary

Envisioning Health Equity Art Challenge

A national competition for artwork that reflects NIMHD's vision: An America in which all populations will have an equal opportunity to live long, health and productive lives



- **Challenge Submission:** October 2020 – January 2021
- **Winners Announced:** March 2021
- **Judging Criteria:** Quality, originality, creativity, and representation of theme
- **Cash Prizes:** Total \$15,000 (1st, 2nd, and 3rd Prizes)
- **Categories:** Teen (16–18 years old) and Adult (19+years old)
- **Project Lead:** Dr. Gina Roussos, NIMHD

For more information contact

NIMHD2020@nih.gov



Design by Biomedical Undergraduate Teams (DEBUT) Challenge

Biomedical engineering design competition open to teams of undergraduate students

NIMHD Award: \$15,000

- Prize focused on development of accessible healthcare technologies for underrepresented populations and/or low-resource settings in the U.S.

NIMHD Selected Winner: Rice University

- Universal Brachytherapy Applicator “At Your Cervix”
- Low-cost 3D printed device that could facilitate and expand treatment of late-stage cervical cancer in areas where clinicians do not have the training or expertise to administer brachytherapy (radioactive implants)

The DEBUT Challenge is sponsored annually by the National Institute of Biomedical Imaging and Bioengineering and VentureWell



From left: Krithika Kumar, Elisa Arango, Sanika Rane, Susannah Dittmar and Lauren Payne
Photo Credit: Rice University



Supplements to Support Rural Health Disparities Multi-Sectoral Research Resource Hubs

- Three supplements awarded to San Diego State University, Tuskegee University, and Morehouse School of Medicine
- Focused on different rural catchment areas: US/Mexico Border, Alabama Black Belt, and southwest Georgia
- Collectively, proposed coalition partners represent health, public health, local government, law enforcement, transportation, agriculture, faith-based, community philanthropic, and academic sectors
- If successful, hubs can serve as a pilot for a larger initiative involving other NIH ICs and Federal partners



<https://grants.nih.gov/grants/guide/notice-files/NOT-MD-20-010.html>



NIMHD Specialized Centers of Excellence on Environmental Health Disparities Research

Building on NIMHD-NIEHS partnership started in FY 2015
3 competing P50 awards in July 2020 totaling \$4.3 million

- **Maternal and Developmental Risks from Environmental and Social Stressors**

University of Southern California (*renewal*)



- **Center for Native American Environmental Health Equity Research**

University of New Mexico Health Sciences Center
(*renewal*)



- **Maternal and Infant Environmental Health Riskscape Research Center**

Baylor College of Medicine



COVID-19 NIMHD Investigator Forum

Hosted 4 virtual sessions with ~45 NIMHD-funded researchers sharing their experiences on the COVID-19 pandemic

Impact on the communities where the research is conducted

- Nuanced insight into how the pandemic is effecting communities that experience health disparities



Strategies to modify recruitment, data collection, or intervention:

- Many surveys and interventions are being adapted for virtual settings. Recruitment dependent on clinical settings and collection of biological specimens are the last to restart

Understanding and addressing the impact of the pandemic on study outcomes

- Pandemic's impact on health disparity pathways is “like fishing with dynamite”
- Many PIs are collecting COVID-19 specific data to tease out COVID-19 related effects on study outcomes



Science Advances



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Neighborhoods' Economics Predict Obesity in Elderly

- Used Area Deprivation Index to examine neighborhood disadvantage and obesity in 5,066 Medicare beneficiaries in Missouri
- Obesity (BMI>30) significantly more prevalent in more disadvantaged neighborhoods
- Findings support the need for area-based allocation of preventive resources for disadvantaged older adults
- BMI data was also more likely to be missing for patients in the most disadvantaged neighborhoods, indicating potential gaps in clinical care that warrant further study



“Moving to Opportunity” Program on Youth Mental Health

- Previous analyses of the *Moving to Opportunity* (MTO) housing voucher experiment showed that moving from impoverished to more advantaged neighborhoods improved mental health outcomes for girls but worsened mental health for boys
- Current analysis examined participant- and externally collected neighborhood level variables for intervention participants
- For girls, improvements in neighborhood disorder and drug activity partially explained MTO’s beneficial effects on girls’ distress
- For boys, improvements in neighborhood disorder, violence, and informal social control (involvement of neighbors in maintaining safety and order) helped to mitigate the negative impact of the transition on behavioral problems, but not on distress

Grant No. R01MD006064

Schmidt, et al. 2020. [Health Place](#). 63:10231.



Racial/Ethnic Differences in Mental Health Service Use and Drop Out Rates

- Data ($N=1417$) from the **Collaborative Psychiatric Epidemiology Studies** was utilized to examine whether barriers to treatment and reasons for dropout differ by race/ethnicity
- Perception of treatment need significantly differed by race/ethnicity
 - Asians (68.6%) and Latinos (57.9%) more often reported no/low perceived need
 - Whites (39.9%) and Blacks (44.1%)
- Among those who did not perceive a need for treatment, attitudinal barriers were more common than structural barriers



COVID-19 Hits Native Hawaiian and Pacific Islander (NHPI) Communities the Hardest

- U.S. states with large numbers of NHPI residents report higher rates of COVID-19 cases among the indigenous peoples of the Pacific than in other racial and ethnic groups
- The rates of COVID-19 cases among NHPI in these states are greater than those reported for African Americans and American Indians
- There is an immediate need for an emergency response plan to reduce the risk of COVID-19 among NHPI communities

Table 1. Confirmed COVID-19 Cases Per 100,000 by Race/Ethnicity in 5 Western States

	NHIP	Statewide
California	217.7	62.43
Hawai'i	44	40
Oregon	154	55
Utah	197.6	142.2
Kings County, Washington	189.5	182.1



Epigenetic Predictors of All-Cause Mortality are Associated with Neighborhood Disadvantage

- DNA methylation profiling of Detroit Neighborhood Health Study participants revealed associations of a recently developed epigenetic mortality risk score with objective measures of neighborhood disadvantage
- The strongest association was seen with abandoned cars, poor streets, and non-art graffiti. Associations were independent of an individual's perception of their neighborhood and attenuated by greenspace features such as large trees and community gardens
- When stratified by sex, the associations appeared to be driven by women in the sample
- Further research is needed to validate these findings in other cohorts and determine how neighborhood characteristics may affect gene expression and physiology in a sex-specific manner to influence risk and resilience

Grant No. R01-MD-011728 Ward-Caviness, et al. 2020. [Clin Epigenetics](#). 12 (1): 44



Premature CAD and Socioeconomic Status

- **Computer Simulation of CAD Policy Model to assess excess burden of premature CAD from SES after risk factors in ages 35-64 y**
- **Low SES < 150% poverty or < high school**
- **Men in low SES had 34.8 vs. 17.6 MIs**
- **Women in low SES had 15.1 vs 6 MIs**
- **Traditional risk factors explained 40% of the difference and the remaining 60% were other factors associated with low SES**
- **About 25% of US adults, 35-64 y, low SES was associated with early CHD**

Hamad R, et al. 2020. [JAMA Cardiology](#). 5(8):899-908.



Impact of COVID-19 Stay-at-Home Orders on Weight-Related Behaviors

- 123 patients with obesity from an obesity clinic and a bariatric surgery practice in Texas completed an online survey to assess COVID-19 status and health behaviors during stay-at-home orders
 - 1.7% tested positive for COVID-19 and 14.6% reported symptoms
 - 72.8% reported increased anxiety and 83.6% increased depression since start of stay-at-home orders
 - 69.6% reported more difficulty in achieving weight loss goals, less exercise time (47.9%) and intensity (55.8%), and stress eating (61.2%)
 - Hispanics were less likely to report anxiety vs. NHWs



Disparities by Race/Ethnicity from COVID-19 in 79 Hot Spot Counties in 22 States, June 2020

MMWR Vol 69, Aug 14, 2020

Race or Ethnicity	Mean of Estimated Difference	Ratio of Cases to Population	N Counties with Disparities
Hispanic/Latino	+30.2	4.4	59
Black/African American	+14.5	2.3	22
American Indian/Alaska Native	+39.3	4.2	3
Native Hawaiian/Pacific Islander	+4.5	2.9	19
Asian	+4.7	8.5	4



Obesity and Mortality in Patients with COVID-19

Tartof SY, et al. Annals Intern Med 12 Aug 2020

6916 patients	RR	95% CI
206 deaths (N)		
Latinos (82)	0.98	0.69 – 1.38
African Am (35)	1.12	0.73 – 1.71
BMI 35-39 kg/m² (14)	1.16	0.63– 2.17
BMI 40-44 kg/m² (14)	2.68	1.43 – 5.04
BMI ≥ 45 kg/m² (12)	4.18	2.12 – 8.26



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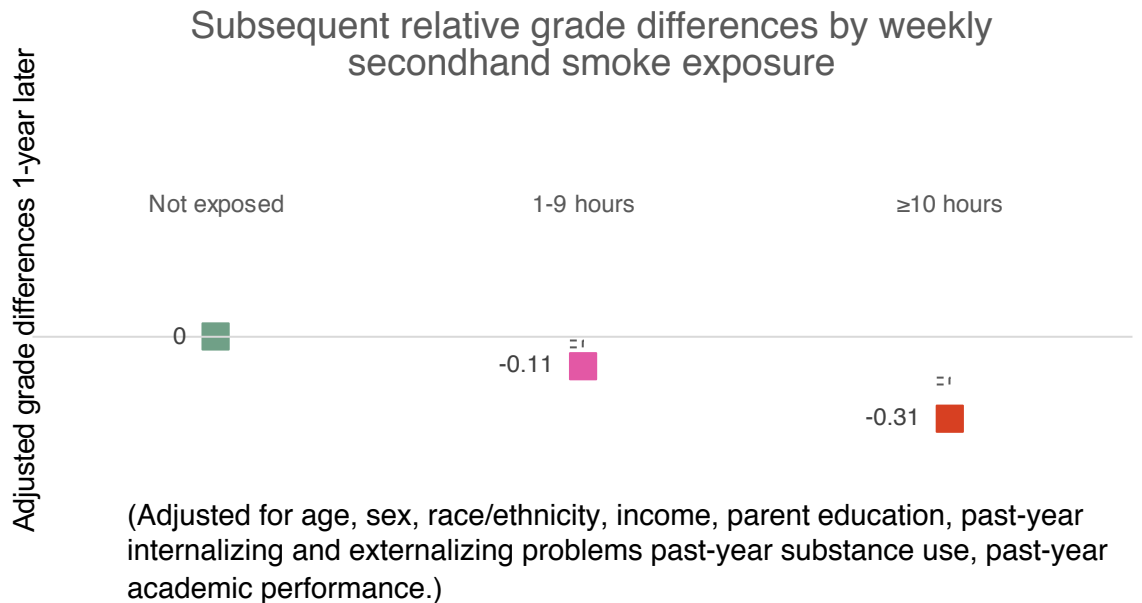
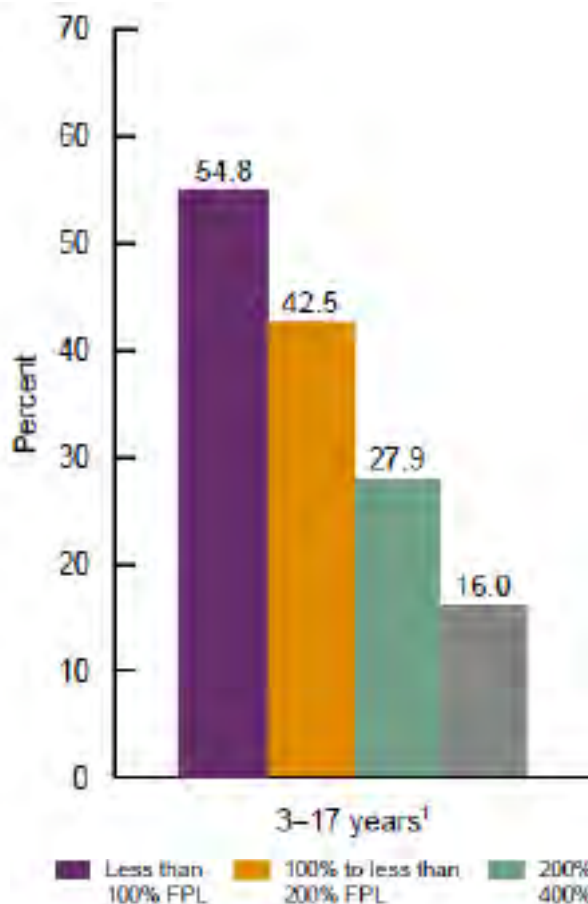
NIH Funding of Hispanic/Latino Health-Related Research on Six Health Topic Areas

- Study aimed to describe and analyze the landscape of Research Program Grants (RPGs) funded by NIH from 2008 and 2015 involving Hispanic/Latino health research in six health condition areas
 - Asthma
 - Cancer
 - Dementia
 - Diabetes,
 - Obesity
 - Liver Disease
- Of the 625 RPG funded applications that were reviewed, 73% focused on Cancer or Obesity
- Mechanisms of disease (72.6%), behavioral studies (42.1%), and epidemiology (38.7%) were the most predominant type of research
- Findings suggest there is room and opportunity to expand research in understudied mechanisms of disease that could explain differences in prevalence of conditions among different heritage groups

Avilés-Santa ML et al. , Frontiers Public Health 2020, published 28 Aug 2020



2nd-Hand Smoke Exposure and Subsequent Academic Performance Among U.S. Youth

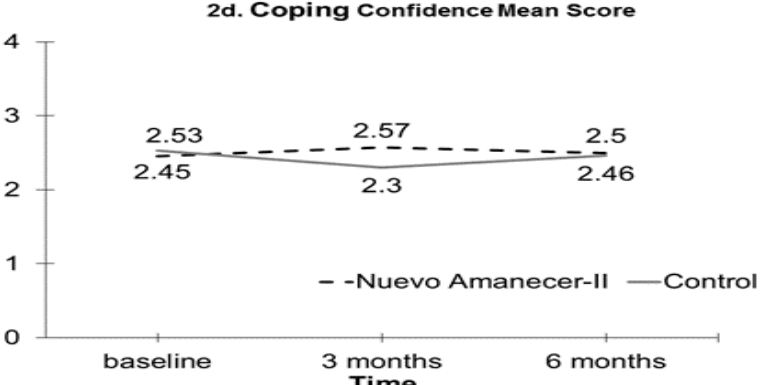
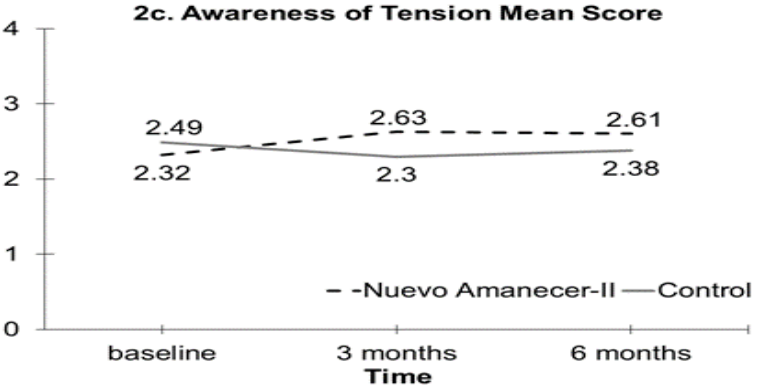
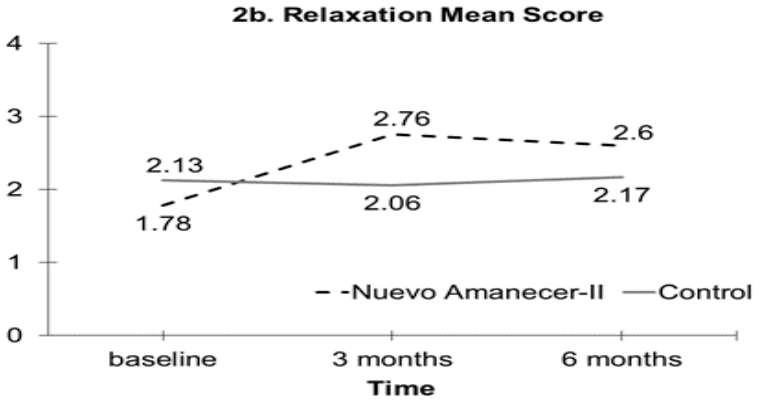
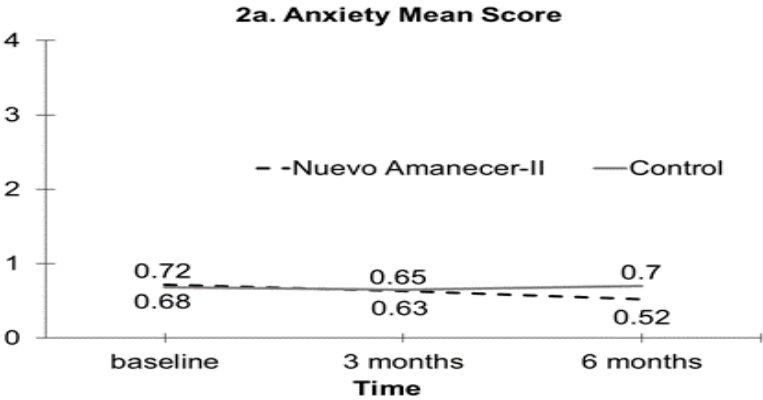


NCHS Data Brief, no. 348, 2019

Choi, et al. 2020. [Am J Prev Med.](#)



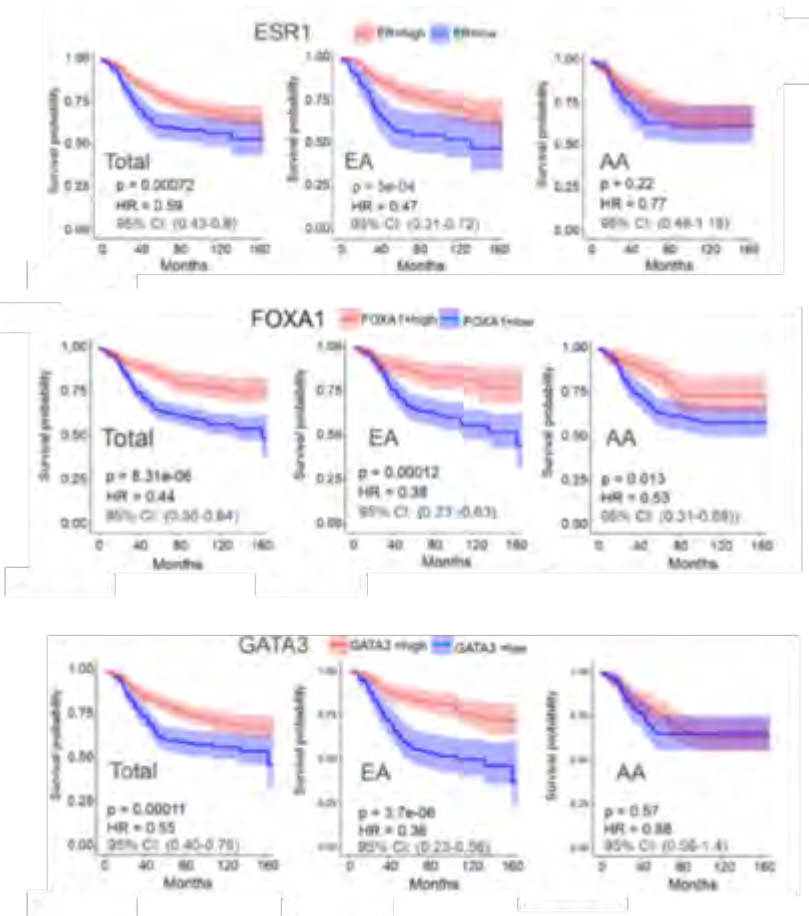
Stress Management Intervention in Rural Latina Breast Cancer Survivors



Nápoles, et al. *Psycho-Oncology*, in press.



Racial Differences in the Association Between Luminal Master Regulator Gene Expression Levels and Breast Cancer Survival



- Retrospective cohort of diverse patients with breast cancer in East North Carolina
- ESR1, FOXA1, GATA3 biomarkers associated with poorer survival among African American compared with European American women
- Differences in downstream transcription regulatory activity governed by these biomarkers that are predictive of race and 3-year survival

Byun, et al. 2020. *Clinical Cancer Research*. 26:1905-14.



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Discussion



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