### **Director's Report** National Advisory Council on Minority Health and Health Disparities

February 5, 2019

Eliseo J. Pérez-Stable, M.D. Director, National Institute on Minority Health and Health Disparities <u>eliseo.perez-stable@nih.gov</u>



### Remembering Steve I. Katz, M.D., Ph.D. 1941-2018

- Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases (1995-2018)
- Started as an Intramural Investigator
- Leader in investigative dermatology and trained a large number of outstanding immunodermatologists in the United States, Japan, Korea, and Europe
- Beloved by staff and fellow directors
- NIAMS Deputy Director Robert H. Carter, M.D., will serve as acting director







## **Ongoing NIH Institute Director Searches**

NIH continues to conduct national searches for the following Institute and Center Directors:

- Center for Scientific Review
- National Institute on Deafness and Other Communication Disorders
- National Institute of Nursing Research
- National Institute of Arthritis and Musculoskeletal and Skin Diseases





## **HHS Appointment**

#### **CAPT Felicia Collins**

Deputy Assistant Secretary for Minority Health Director, Office of Minority Health U.S. Department of Health and Human Services

- Appointed on January 31, 2019
- Comes to HHS from the Health Resources and Services Administration, where she most recently served as a Senior Advisor in the Bureau of Primary Health Care
- Received her undergraduate degree from Yale, her medical degree from Harvard Medical School, and completed her residency in primary care pediatrics at Children's Hospital in Boston







### Update on NIH Policies/Approaches to Prevent and Address Sexual Harassment







## **Next Generation Research Initiative**

# Report from the Advisory Committee to the Director December 13, 2018

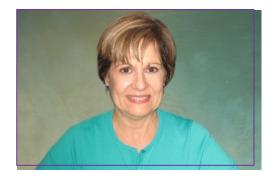
- **Theme 1:** Modify the Original NGRI policy
- Theme 2: Develop Methods to Identify and Support "At-Risk" Investigators and Early Stage Investigators
- Theme 3: Promote Sustainable Training Opportunities that Incorporate Diversity and Inclusion
- Theme 4: Monitor Outcomes and Optimize Workforce Stability Through Improved Metrics And Further Research
- Theme 5: Continue Transparency Efforts and Engagement with Scientists Across Career Stages to Inform Policy Decisions





### NIMHD Departure: Joan Wasserman, Dr.P.H., R.N.

- Served as Director, Office of Extramural Research Administration since December 2015
- Led the Health Disparities Research Institute implementing change
- Director of Research at School of Nursing, Uniformed Services University of Health Sciences
- Thomas Vollberg, Ph.D., is serving as Acting Director as search is initiated







## NIMHD Appointment Director of Clinical Health Services Research

#### Mainés Larissa Avilés-Santa, M.D., M.P.H.

- From the National Health, Lung, and Blood Institute where she worked in the Epidemiology Branch, Prevention and Population Sciences Program, Division of Cardiovascular Sciences as main Program Director for HCHS/SOL
- M.D. from the University of Puerto Rico and residency in internal medicine at the University Hospital in San Juan, Puerto Rico and endocrine fellowship
- Fellow of the American College of Physicians and the American College of Endocrinology
- Thank you to Dr. Joyce Hunter who has served as the acting director for CHSR for the past year







## Additional NIMHD Extramural Staff Updates

#### <u>New Hire</u>

 Soon Moon M.B. A. Chief Administrative Officer
 Office of Administrative Management

#### <u>Departures</u>

 Xinzhi Zhang, M.D., Ph.D.
 Program Director, Division of Scientific Programs, moved to National Center for Advancing Translational Sciences

#### Starsky Cheng

Administrative Officer, Office of Administrative Management, moved to National Institute of Diabetes and Digestive and Kidney Diseases







### **NIMHD Intramural New Hires**

#### Saida Coreas

Post Baccalaureate Fellow Division of Intramural Research, NHLBI



Tolu Omole

Post Baccalaureate Fellow Division of Intramural Research



Lucy Jin
 Post Baccalaureate Fellow
 Division of Intramural
 Research



Asmi Panigrahi
 Post Baccalaureate Fellow,
 Division of Intramural
 Research, NHLBI



Kristyn Kamke, Ph.D.
 Postdoctoral Fellow
 Division of Intramural
 Research



Bonita Salmeron
 Post Baccalaureate Fellow
 Division of Intramural
 Research





## **Legislative Update**

- On January 9, 2019, met with Representative Terri Sewell (7th District Alabama) to discuss health disparities and grants in her district
- October 24, 2018 H.R. 6, the Substance Use–Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act (P.L. 115-271)







## **Director's Presentations**

#### National Black Caucus of State Legislators

Washington DC September 12, 2018

## 12th National Symposium on Prostate Cancer

Clark Atlanta University (RCMI) Atlanta, Georgia September 17, 2018

#### 9th Biennial Asian American, Native Hawaiian and Pacific Islander Conference

NYU School of Medicine (COE) New York, NY September 24, 2018

#### 18th Annual International Hispanic Sciences Network Conference

Rockville, Maryland October 3, 2018

IAPHS Annual Meeting, "Population Health Science: NIH Goals and Challenges Washington DC October 5, 2018 **2018 Evelyn Visiting Scholar Lecture** Department of Psychiatry, UCSF October 30, 2018

#### Rutgers Cancer Institute New Jersey

Rutgers University New Brunswick, New Jersey October 17, 2018

#### AAMC Annual Meeting Panel on NIMHD Research

Austin Texas November 5, 2018

#### **Dean's Distinguished Lecture Series** Keck School of Medicine University of Southern California December 4, 2018

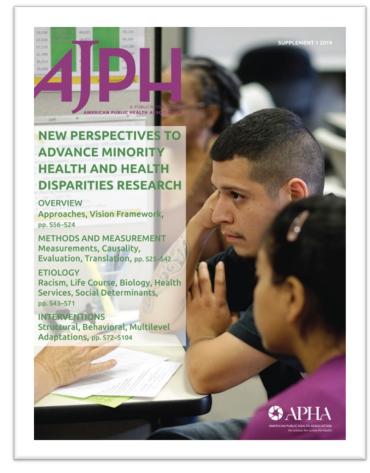






#### Special Issue of AJPH: New Perspectives to Advance Minority Health and Health Disparities Research Supplement 1, 2019, Vol 109, No. S1

- Editor's choice by NIMHD Director Eliseo J. Pérez-Stable and NIH Director Francis S. Collins
- Definitions for minority health, health disparities, and NIMHD Research Framework
- Thirty research strategies in methods and measurement, etiology, and interventions
- Multi-year process with more than 100 authors, including NIH intramural, extramural and external scientists
- NIMHD guest editors: Drs. Nancy Breen, Rina Das, Tilda Farhat, Nancy Jones, and Richard Palmer







## **Council Members Presented at NIMHD Director's Seminar Series**

#### Giselle Corbie-Smith, M.D., M.Sc.

University of North Carolina School of Medicine School of Medicine March 13, 2018

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

The University of Texas Health Science Center at San Antonio Thursday, October 4, 2018

#### Sandro Galea, M.D., M.P.H., Dr.P.H.

Robert A. Knox Professor of Epidemiology School of Public Health Boston University Tuesday, January 22, 2019

View at https://videocast.nih.gov/











## **NIMHD Health Disparities Research Institute**

Fostering the next generation of researchers in Minority Health and Health Disparities

#### Join us for a week-long intensive and engaging training experience

- Attend lectures with leading researchers in minority health and health disparities
- Participate in a mock grant review
- Meet with NIH scientific program staff engaged in related health disparities research across the NIH Institutes and Centers



 Consult on the development of research interests into an application – R21, R01, K award, as well as consultation on research strategies and methodologies for proposed studies

#### Visit: <a href="https://nimhd.nih.gov/programs/edu-training/hd-research-institute/">https://nimhd.nih.gov/programs/edu-training/hd-research-institute/</a>





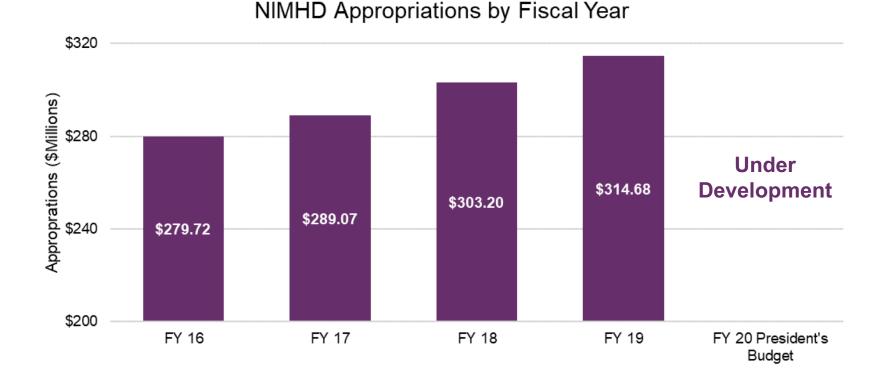
## **NIMHD Budget**



National Institute on Minority Health and Health Disparities



## Appropriations Trends, 2016-2019

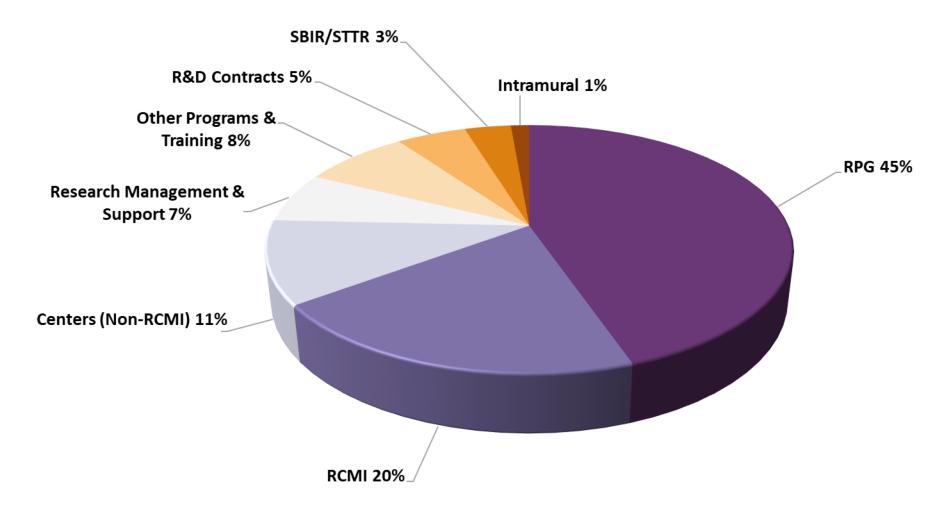


https://officeofbudget.od.nih.gov/approp\_hist.html





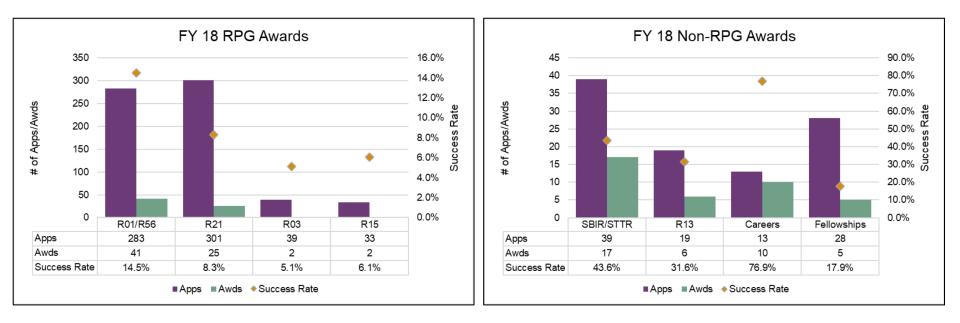
## FY 2018 Funding Distribution







## **NIMHD FY 2018 Competing/New Awards**



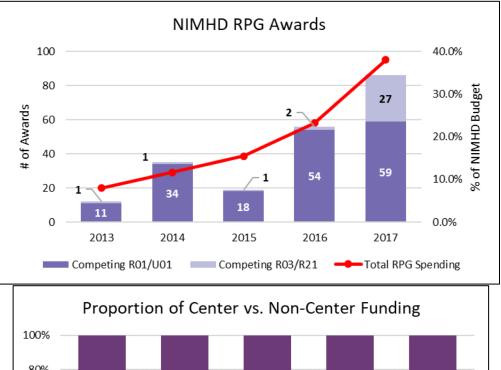
- Other FY 18 Funding Accomplishments
  - 77 Loan Repayment Awards (16% Success Rate)
  - Continued support to Indian Health Service TECs
  - Jackson Heart Study support
  - CFARS Adelante program support
  - Continued support to Centers programs

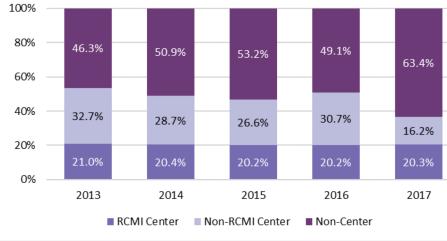


ational Institute



## NIMHD FY 13 – FY 17 Spending Trends

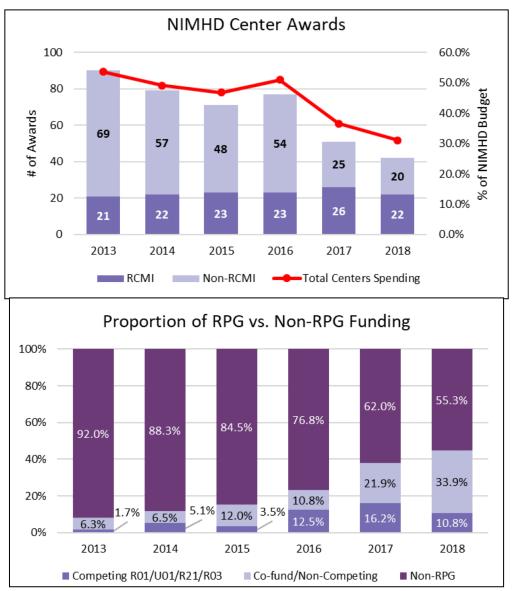








### NIMHD FY13-FY18 Spending Trends







## **RPG Application Numbers: New Challenge**

L	FY	# of RPG applications	Source	% Increase over previous FY
	2020	907	Estimate	17%
	2019	776	Estimate	18%
	2018	656	Actual	52%
	2017	432	Actual	49%
	2016	290	Actual	32%
	2015	219	Actual	- 25%
	2014	293	Actual	5%
	2013	280	Actual	99%
	2012	141	Actual	40%
	2011	101	Actual	







## NIMHD-Supported Grants and Programs



National Institute on Minority Health and Health Disparities



### NIMHD Precision Medicine Centers Annual Meeting December 2018, Bethesda MD



- Opportunity for collaborations and advancing the science of precision medicine and health disparities
- Keynote speaker was Eric Dishman, director of the All of Us Research Program







## **NIMHD Conference and Meetings**

#### 2018 Research Conference on Sleep Health and the Health of Women

NIH Main Campus Bethesda, Maryland October 16-17, 2018

American Public Health Association Annual Meeting Science Visioning Panel San Diego, California November 10, 2018



NIMHD-NIEHS-EPA Center of Excellence on Environmental Health Disparities Johns Hopkins University Baltimore, Maryland January 24-25, 2019





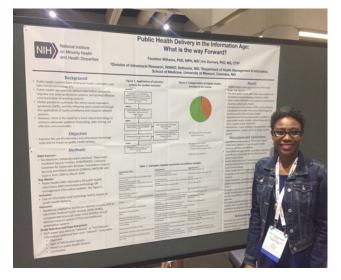
### **Division of Intramural Research**

#### American Public Health Association Annual Meeting

- Drs. Choi, Williams, Nápoles and Postdoctoral Fellow Julia Cen Chen-Sankey
- Topics included tobacco use, cancer incidence and health inequities

#### 2nd NCI Symposium on Cancer Health Disparities

- Drs. Anna Nápoles and Jung Byun
  - Cancer Health Equity
  - Master Regulators of Luminal
     Differentiation in Tumor Biology of
     Diverse Breast Cancer Patients









# **Science Advances**







## **Prevalence of High Impact Chronic Pain**

	Age-Adjusted %
Whites	7.4 (7.0-7.9)
Blacks	8.1 (7.1-9.2)
Latinos	7.9 (6.9-9.2)
< High School	12.1 (10.7-13.7)
Bachelor's plus	3.5 (3.1-4.0)

(Dahlhame et al., MMWR, 2012)





## **Drug Overdose Deaths by County Characteristics and Race/Ethnicity**

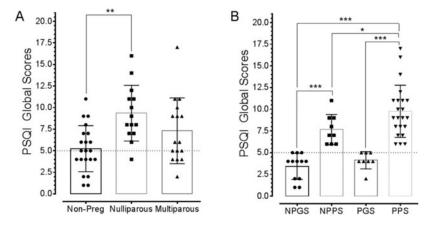
- Mortality rates increased throughout the country across low and high SES, urban and rural counties among 25-64 y Whites (APC 5-12%), 50-64-year-old Blacks (APC 2-9%) and Latino men (APC 2 -6%)
- Drug poisoning mortality rates increased in the lowest-SES and rural counties with large SES gradient for Whites
- Most deaths occurred in metropolitan counties (76%)
- Among Black men and women and Latino men, mortality rates increased significantly in some categories of county attributes among 25-49-year-olds and remained stable in most others
- Among 25-49-year-old Latina women, 50-64-year-old Latino men and 50-64-year-old Black men and women, drug poisoning mortality rates increased significantly in less affluent and more affluent counties, as well as in larger, metropolitan



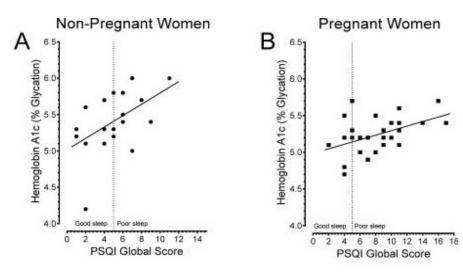


### Poor Sleep Quality Associated with Higher Hemoglobin A1c in Pregnant Women

- Poor sleep quality during gestation may increase risk of Gestational diabetes (GD)
- Investigators assessed sleep duration and quality and HbA1c in 30 pregnant and 21 non-pregnant African American women
- Results showed higher incidence of poor sleep quality in pregnant (73%) vs. non-pregnant women (43%)
- Poor sleep quality positively correlated with higher HbA1c in both groups



NPGS, Non-pregnant good sleepers; NPPS, Non-pregnant poor sleepers; PGS, Pregnant good sleepers; PPS, Pregnant poor sleepers



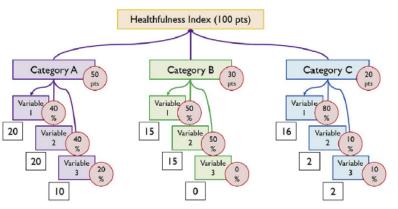
(Chirwa et al., Int J Environ Res Public Health, 2018)



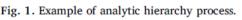
NIH Grant No. U54-MD-007593

#### Developing the Means to Assess Community Needs and Assets in a Geographic Information System (GIS)

- Community stakeholders and academic experts created a novel spatial healthfulness index
- Participants were recruited from the Flint Center for Health Equity Solutions (FCHES)



Partners were engaged to

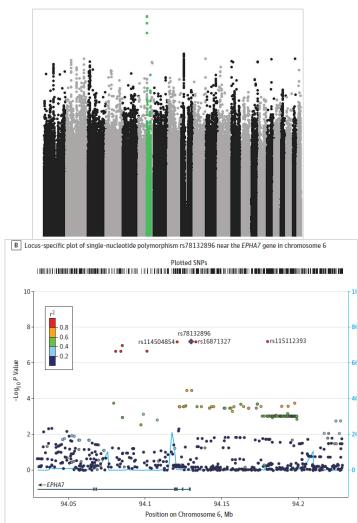


- 1) Identify variables that may affect behavior change
- 2) Establish GIS-based metrics for each variable
- Determine the weight of each variable using an analytic hierarchy process
- Weights of individual factors varied between academic and community partners and between the two FCHES interventions.
- The results provide an assessment of built environmental factors that influences uptake of behavior change during public health interventions
   NIH Grant No. U54-MD-011227 (Sadler et al., <u>Soc Sci Med</u>, 2018)





### Four SNPs in Chromosome 6 predict Warfarin-Related Bleeding in African Americans



- Patients of African descent have higher rates of thromboembolic diseases (stroke and venous thromboembolism)
- African Americans are at higher risk of major bleeding from warfarin compared to White patients
  - Four single-nucleotide polymorphisms in linkage disequilibrium on chromosome 6 were associated with increased risk of major bleeding among patients of African descent taking Warfarin

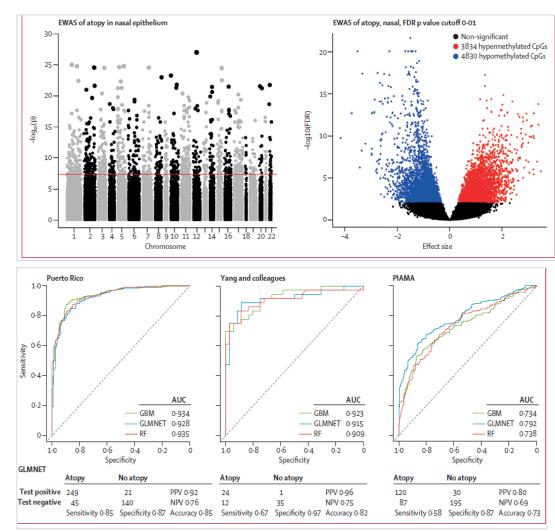






### **DNA Methylation Signatures** of Atopy and Asthma in Puerto Rican Children

- Nasal epithelium DNA methylation profiles differed markedly between children with and without atopy and could predict atopy vs. asthma in a discovery cohort and two independent replicate cohorts
- Utility of nasal epithelium for identifying clinically predictive epigenetic alterations that precede asthma symptoms in Puerto Rican youth



(Forno et al., *Lancet Respir Med*, 2018)

NIH Grant Nos. R01-MD-011764 (Pitts); U54-MD-007587 (U PR)

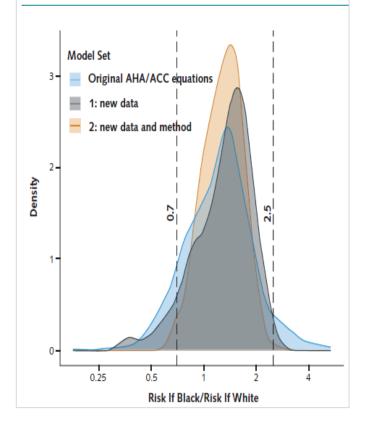


## **Improving Cardiovascular Risk Estimation**

## Modifying pooled cohort equations to improve the accuracy of cardiovascular risk estimates

- 10-year cardiovascular disease (CVD) risk estimates from the pooled cohort equations (PCEs) misestimates risk for African Americans
- Two strategies to improve accuracy: updating the data and changing the statistical methods used to derive them
- Predictors used: age, sex, Black race, current tobacco smoking, total and HDLcholesterol, SBP, and diabetes
- Findings: Improved accuracy requires updating derivation data and revision of statistical methods
- Clinical relevance: informs patient– physician conversations

National In on Minority and Health *Figure 4.* Effect of black race on 10-y estimated risk for atherosclerotic cardiovascular disease, per alternative models.



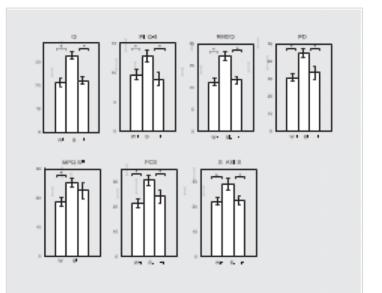
(Yadlowsky et al., Ann. Int. Med., 2018)



NIH Grant No. DP2-MD-010478

### Examining Injustice Appraisals in a Racially Diverse Sample of Individuals with Chronic Low Back Pain

- Injustice perception has emerged as a risk factor for problematic musculoskeletal pain outcomes.
- The study examined the associations between perceived injustice and pain, disability, and depression in a diverse community sample of individuals with chronic low back pain-CLBP (N = 137) - 51 (37.2%) white, 43 (31.4%) Hispanic, 43 (31.4%) black or African American.
- Compared with white and Hispanic participants, black participants reported
  - $_{\odot}$  higher levels of perceived injustice related to CLBP
  - $_{\odot}$  higher depression and pain-related disability
  - $_{\odot}$  higher pain intensity than white participants



WH, white; BL, black/AA participants; HI, Hispanic participants; PCS, Pain Catastrophizing Scale

- Findings support the contribution of injustice appraisals to functional and psychosocial outcomes among individuals with CLBP, above and beyond sociodemographic and psychosocial contributors
- Lack of research addressing health-related injustice beliefs within minority populations & the need for prospective designs regarding injustice appraisals in CLBP

NIH Grant No. R01-MD-010441

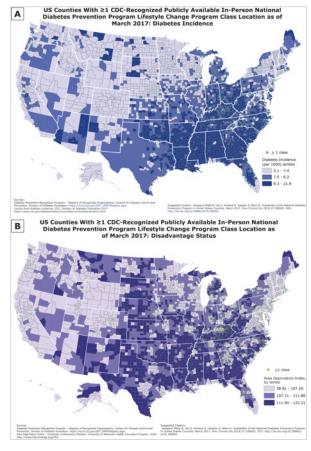


(Trost et.al., Journal of Pain, 2018)



### **Availability of the National Diabetes Prevention Program in United States Counties, March 2017**

- The National Diabetes Prevention Program is a CDC-led effort to increase availability of the DPP in counties across the US
- Using the NIMHD-supported tool, the 2013 Area Deprivation Index, the CDC examined availability of inperson DPP Lifestyle Changes Program Classes in 2017 according to county-level diabetes incidence and socioeconomic disadvantage
  - Fewer counties with high diabetes incidence offered classes (17%) compared to counties with low incidence (27%)
  - Fewer counties with high socioeconomic disadvantage offered classes (10%) compared to counties with low socioeconomic disadvantage (39%)
- Greater efforts are needed to ensure DPP programming is available in areas with populations at the greatest risk of developing diabetes



NIH Grant No. R01-MD-010243



(Jayapaul-Philip et al., Prev Chronic Dis, 2018)

### Associations Between Marital Status and Cigarette Smoking Vary by Race/Ethnicity When You Disaggregate Marital Status

- Health Information National Trends Survey (HINTS) 2011– 2017, nationally representative sample of adults 30 years and older (n=11,889)
- Disaggregated marital status into married, cohabiting, divorced, widowed, separated, single/never married
- Cohabitating blacks have highest prevalence of smoking, followed by separated whites
- Implications: Research on marital status and health needs to separate marital categories

NIH IRP Funded, Dr. Kelivn Choi's Lab



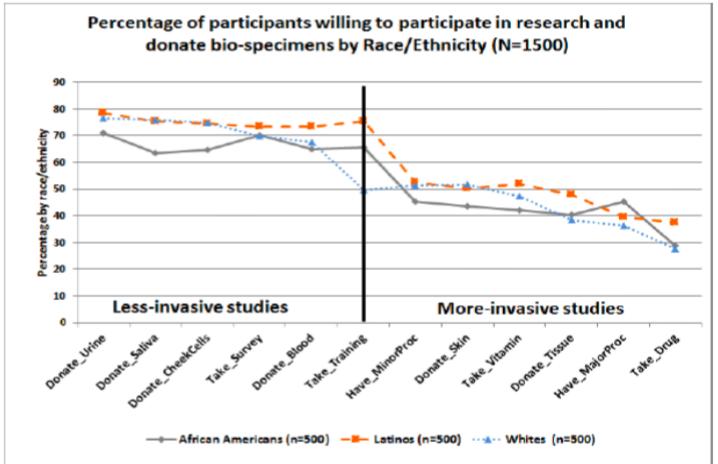
	% current smoking		
Marital status	White	Black	Hispanic
Married	11%	12%	12%
Cohabiting	30%*	36%*	24%
Divorced	<b>26%</b> *	23%*	22%*
Widowed	<b>12%</b> *	13%	13%
Separated	35%*	<b>32%</b> *	22%
Single	34%*	25%*	28%*

\*Different from married (p<0.05).

(Ramsey et al., Prev Med, 2018)



#### Willingness to Participate in Research: African Americans, Spanish-speaking Latinos and Whites in Louisiana



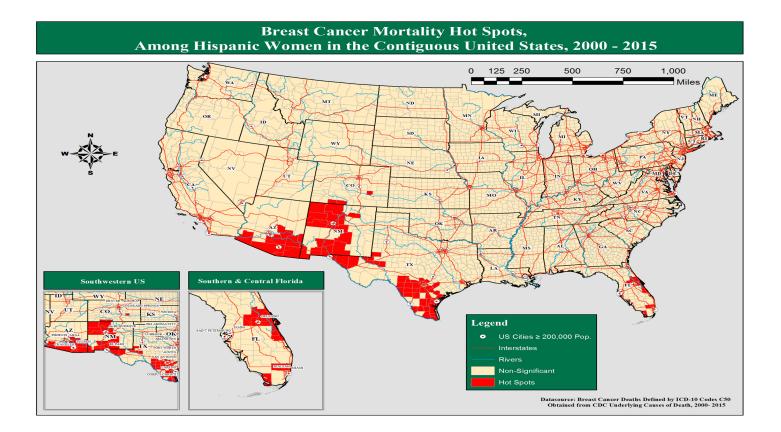
NIH IRP Funded, Dr. Anna Nápoles' Lab

(Echeverri et al., Int J Environ Res Public Health, 2018)





### Breast Cancer Mortality Hot Spots Among Latinas, U.S., 2000-2015



(Moore, J. X., et al., Cancer Causes Control, 2018)





# My Vision for NIMHD

- Build on legacy and use our license to discover
- Collaborate with other ICs
- Cultivate stakeholder support
- Diversity of the scientists and inclusion of participants
- Advance the science of minority health and health disparities
- Promote Health Equity





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# Discussion



National Institute on Minority Health and Health Disparities

