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Lead

GREAT/GRAND Community Forum NIMHD Director's Update

Eliseo J. Pérez-Stable, MD Director of the National Institute on Minority Health and Health Disparities July 9, 2020



Get Involved with GREAT and GRAND

Know someone not currently in GREAT or GRAND who might benefit from these conversations and networking? Tell them to email GREAT@aamc.org or GRAND@aamc.org and ask to join the group.

GREAT and GRAND montly community calls bring group members together to discuss how their institutions are responding to the coronavirus. To be invited, email Sr. Administrative Associate Emily Outtarac at eouttarac@aamc.org.

Next Community Forum on August 11 1:00 – 2:00 pm ET with AAMC Sr. Director of Government Relations Tannaz Rasouli and Sr. Legislative Analyst Dr. Christa Wagner.



Research Opportunities and Challenges from NIMHD

July 9, 2020
AAMC GREAT/GRAND Community Webinar

Eliseo J. Pérez-Stable, M.D.

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Health Disparity Populations

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



Office of Management and Budget Census Race/Ethnic Categories

- African American or Black
- Asian
- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander
- White
- More than one race: 2.6% in 2010
- Latino or Hispanic (20 countries)



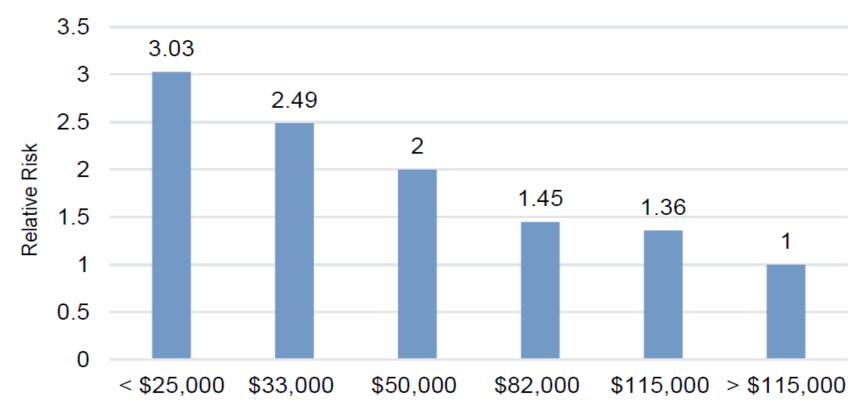
Life Expectancy in the U.S., 2014

	Men	Women
Whites	76.5	81.1
Blacks	72.0	78.1
Latinos	79.2	84.0
Total in 2017	76.1	81.1

Arias E., NCHS data brief, CDC, (2016), no 244 Murphy SL, et al., NCHS data brief, CDC (2018), no 328



Relative Risk of All-Cause Mortality by US Annual Household Income Level in 2016



US Annual Household Income (Converted to 2013 US Dollars)

Wyatt R, et al., Achieving health equity: A guide for health care organizations. IHI White Paper.
Institute for Healthcare Improvement, 2016



Colorectal Cancer Screening, NYTS, BRFSS, U.S., 2018

MMWR March 13, 2020; 69:253-9

	AII	Age 50-64	Age 65-75
No Insurance	40.1%	32.6%	55.7%
Whites	71.0%	65.7%	80.7%
Latino/as	56.1%	50.6%	68.5%
Blacks	70.0%	65.1%	79.7%
Asians/PI	64.8%	59.1%	76.4%
AI/AN	62.1%	55.1%	76.6%

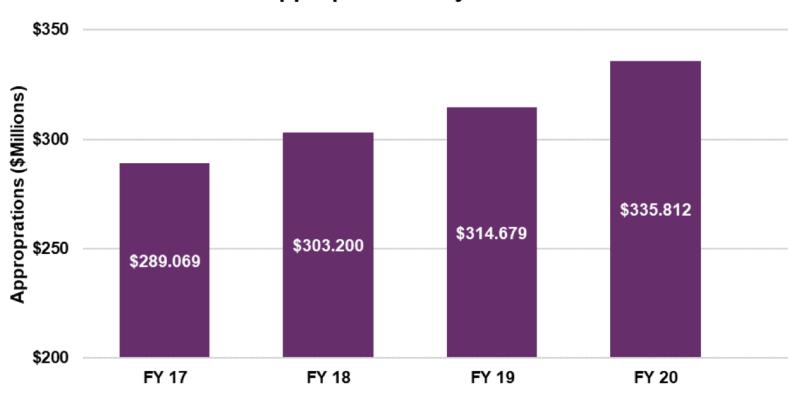


National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*							
		Individual	Interpersonal	Community	Societal				
	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure				
ence	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws				
Domains of Influence (Over the Lifecourse)	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 Service Safety Net Service		Quality of Care Health Care Policies				
Health Outcomes		Individual Health	Family/ Organizational Health	合 Community 合合 Health	Population Health				

FY 20 Appropriations Outlook

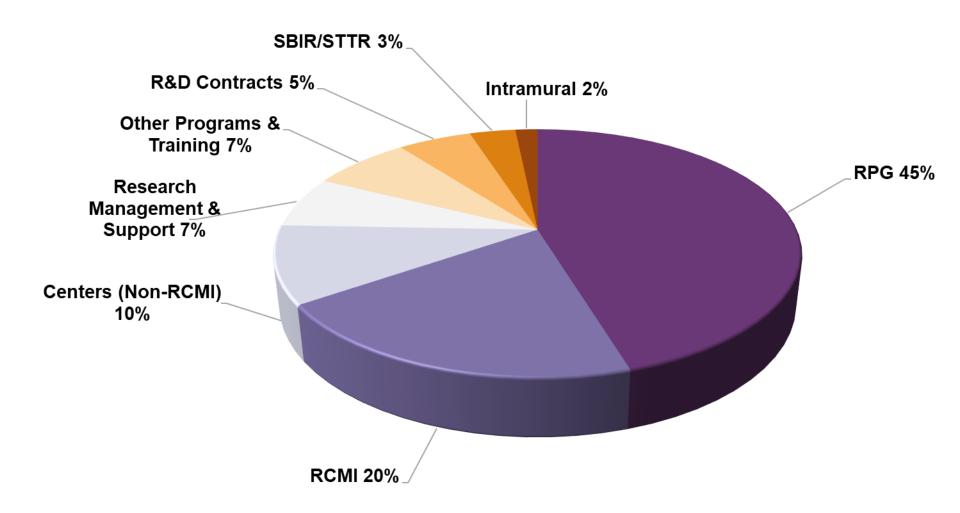
NIMHD Appropriations by Fiscal Year



https://officeofbudget.od.nih.gov/approp_hist.html



FY 19 Funding Distribution





Research Centers in Minority Institutions

- 1. Charles R. Drew University of Medicine 11. Xavier University of Louisiana, New and Science, Los Angeles
- 2. University of Texas at El Paso
- 3. Morehouse School of Medicine, Atlanta
- 4. Clark Atlanta University, Atlanta
- 5. Florida A&M University, Tallahassee
- 6. University of California, Riverside
- 7. Howard University, Washington, D.C.
- 8. Ponce School of Medicine, Puerto Rico
- 9. Morgan State University, Baltimore
- 10.San Diego State University, California

- **Orleans**
- 12. Florida International University, Miami
- 13. Meharry Medical College, Nashville
- 14. North Carolina Central University, Durham
- 15. Northern Arizona University, Flagstaff
- 16. Tuskegee University, Alabama
- 17. University of Hawaii at Manoa
- 18. University of Puerto Rico Medical **Sciences**



NIMHD FY 19 Competing Awards

- >90 Loan Repayment Awards
- \$3m+ towards new Youth Violence research
- Support to Multi-Center AIDS Cohort Study/ Women's Interagency HIV Study Cohort
- Support to the Tribal Epidemiology Centers
- Jackson Heart Study and Hispanic Community Health Study/Study of Latinos support with NHLBI
- Support for CFARS and Adelante program





NIMHD Research Funding Opportunity Announcements

- Immigrant Populations: etiology/interventions
- Disparities in Surgical Care and Outcomes
- Social Epigenomics: Re-issued
- Sleep Disparities
- Liver Cancer and Chronic Liver Disease
- Opioid Use Disorders (separate from HEAL)
- Lung Cancer Etiology, Screening and Care
- Health Information Technologies
- Post Disaster Impacts on Health and Health Care
- Management of diabetes in health disparity populations





Minority Health and Health Disparities in Maternal Mortality and Morbidity

RFA-MD-20-008 aims to support research that tests clinical, social behavioral and health care system interventions to address racial disparities in maternal mortality and morbidity (MMM) in the U.S.



Learn more at

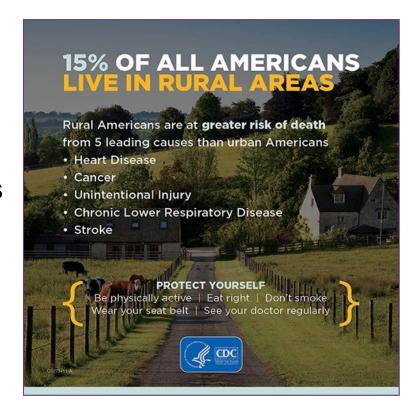
http://nimhd.nih.gov/funding



Rural Health Disparities Research Resource Hubs

NOT-MD-20-010 aims to understand challenges to conducting rural health disparities research, particularly for early stage investigators

- Supplements to current Centers of Excellence and RCMI awardees to develop multi-sectoral coalitions to enhance capacity to conduct rural health disparities research.
- Initiative is one of NIH's contributions to the HHS Rural Health Strategic Plan.
- If successful, this program can serve as a pilot for a larger initiative involving other NIH ICs and Federal partners.



COVID-19 and Racial/Ethnic Disparities

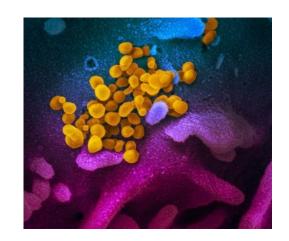
- Numerous reports of disproportionate burden of COVID-19 on racial and ethnic minority populations have emerged
- Possible underlying causes of this burden related to longstanding disparities and disadvantage, higher rates of comorbid conditions, higher proportions of public facing jobs, and crowding in housing and communities
- Imperative need for implementing prevention and healthcare strategies aligned with the needs of these communities to address effects of pandemic and mitigation efforts as well as underlying inequities



Impact of COVID-19 Outbreak on Minority Health and Health Disparities

NOT-MD-20-019 is soliciting research with health disparity populations that seeks to understand:

- How state and local policies and initiatives mitigate or exacerbate disparities in health services use and health outcomes
- The role that community-level protective and resilience factors and interventions have in mitigating the effects of the sector disruptions that the COVID-19 outbreak causes
- How behavioral and/or biological mechanisms may contribute to COVID-19 manifestations





Learn more at

https://grants.nih.gov/grants/guide/notice-files/NOT-MD-20-019.html



JAMA Viewpoint: COVID-19 and Racial/Ethnic Disparities Webb Hooper M, Nápoles AM, Pérez-Stable EJ

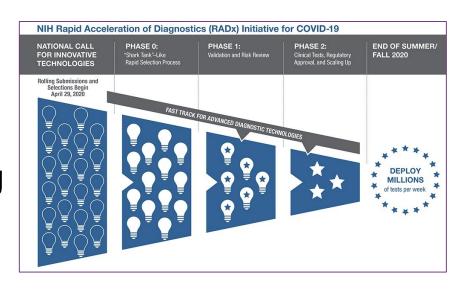
- Published online Monday, May 11, 2020
- The article addresses the disproportionate burden of COVID-19 on racial and ethnic minority populations
- Possible underlying causes of this burden related to longstanding disparities and disadvantage, higher rates of comorbid conditions and crowding in housing and communities
- Imperative need for implementing prevention and healthcare strategies aligned with the needs of these communities to address effects of pandemic and mitigation efforts as well as underlying inequities



NIH Testimony on RadX Plans: New Tests for COVID-19

May 7, 2020

 The Senate Committee on Health, Education, Labor and Pensions held a hearing entitled "Shark Tank: New Tests for COVID-19"



 NIH Director Francis Collins, M.D., Ph.D., and Biomedical Advanced Research and Development Authority Acting Director Gary Disbrow, Ph.D., testified

Watch at

https://www.help.senate.gov/hearings/shark-tank-new-tests-for-covid-19



RADx-UP Strategies

- Understand factors that contribute to COVID-19 disparities and implement interventions to reduce these disparities
- Expand capacity to test broadly for viral nucleic acids in the population that is most affected including asymptomatic persons
- Implement mitigation strategies based on isolation and contact tracing to limit community transmission
- Anticipate opportunity to evaluate and distribute vaccines and potential therapeutic candidates
- Opportunity to deploy validated point of care tests as these are available including self-test methods and use of saliva samples





Strategy for RADx



RADx-Underserved Populations (RADx-UP) Project – \$500M

Goal: Leverage existing community partnerships to implement culturally relevant testing strategies in underserved and vulnerable populations

Phase I (FY20-21, \$250M):

Phase la:

- Coordination and Data Collection Center (CDCC) –\$15M per year,
 1 site for 4 y; new U24 cooperative agreement managed in NIMHD
- Collaborative network of research centers and large networks with established community-engagement experience in underserved populations— up to \$5M/site, ~25 sites; supplements

Phase Ib:

- Collaborative network of clinical research grants across the country
 -\$1M/site, up to 30 sites; competitive revisions or new R01s
- Social, Ethical, and Behavioral Implications (SEBI) program –\$5M total, 5-8 sites at \$400,000 each; competitive revisions/new R01s

OD Strategy for RADx



RADx-Underserved Populations (RADx-UP) Project – \$500M

Phase II (FY22-24, \$200M):

- Continue SEBI program up to \$5M, 5-8 sites; competitive revisions/new R01s
- Renewal or expansion of Phase I components + new awards for synthetic network of clinical research sites and centers – up to \$245M; competitive revisions/new awards

Anticipated Timeline:

- Phase I FOAs published June 12
- Phase I awards made by end of FY20: September
- Phase II awards made in FY21/22

Achieving Health Equity in Preventive Services

- Pathways to Prevention (P2P) Workshop held June 19-20, 2019 and led by the NIH Office of Disease Prevention with support from NIMHD and other NIH Institutes
- Focus on heart disease, cancer and diabetes that account for 70% of deaths and cost in health
- Three publications in Annals of Internal Medicine January 2020: Position paper, Review and Editorial
- 26 recommendations highlight research gaps in achieving equity to improve implementation of proven services to reduce disparities in preventable conditions

Seeking a Common Currency for Studying Social Determinants of Health Across NIH

Lack of standard measures in SDOH presents a barrier for behavioral, clinical, and translational research

- For clinicians, knowledge of SDOH can improve patient care and quality of life
- For researchers, adoption of standard measures will
 - promote collaborations with clinicians and patients
 - Provide context for understanding health outcomes
 - accelerate translational research

Standard SDOH Measures can improve understanding of causes of health inequities and effective interventions to reduce disparities



Individual Social Determinants of Health

- Age, gender, race/ethnicity, SES, occupation
- National origin or family background
- Urban or rural residence or geographic region
- Cultural identity, religiosity, spirituality
- Immigrant, generation, documentation
- Language proficiency, acculturation
- Literacy, numeracy, food insecurity
- Sexual orientation, gender identity
- Disability developmental, mental, physical



Structural Social Determinants of Health

- Access to affordable housing homelessness
- Green space and sidewalks
- Access to broadband internet and Wifi
- Transportation public and individual
- Schools and educational institutions
- Employment and economic opportunity
- Public safety and criminal justice issues
- Access to healthy and affordable food



Common Data Elements for Social Determinants of Health

Toolbox of Measures on SDOH



Adoption of CDEs and standard measures will promote and facilitate:

- Data harmonization.
- Domestic and international crossstudy analysis.
- Accelerated translational research.
- Greater understanding of the causes of health disparities.
- Effective interventions to reduce disparities.



Launch May 11, 2020

Core Collection

- Access to Health Services
- Annual Family Income
- Biological sex assigned at birth
- Birthplace
- Current Address
- Age
- Educational Attainment
- Employment Status
- English Proficiency

- Ethnicity
- Food Insecurity
- Sexual orientation
- Health Insurance Coverage
- Health Literacy
- Occupational Prestige
- Race
- Gender Identity



Specialty Collection: Structural

- Air Quality Index
- Concentrated Poverty
- Educational Attainment Community
- Environmental Justice
- Food Swamp
- Percent Unionized for Non-Agricultural Labor Force
- Race/Ethnic Residential Segregation
 - Race/Ethnic Residential Segregation American Community Survey
 - Race/Ethnic Residential Segregation Separation (S) Index, Unbiased
 - Race/Ethnic Residential Segregation U.S. Census
- Social Vulnerability



Specialty Collection: Individual

- Access to Health Technology
- Discrimination
- Health Numeracy
- Job Insecurity
- Wealth
- Spirituality
- Disparate Health Care Quality



Racial and Ethnic Categories of Pls, NIMHD and NIH, FY 2019

Race/Ethnicity	NIMHD— R01s	NIMHD—Ks	NIH—R01s	NIH—Ks
AI/AN	1.5%	0%	0.2%	0.2%
Asian	13.9%	30.4%	21.7%	20.4%
Blacks/AA	13.6%	21.7%	1.3%	4.8%
NH/OPI	0%	0%	0.1%	0%
White	60.5%	30.4%	68.6%	64%
Latino/a	10.2%	17.4%	4.3%	7.2%
> 1 race or unknown	2.7% /7.8%	4.3% /13%	1.0% /7%	2.4% /8.1%



NIMHD Success Rates by Mechanism and Race/Ethnicity, 2016-2019 Combined

		R01 Other RPGs			Research Centers			Research Careers				
	Applications	Awards	Success Rate	Applications	Awards	Success Rate	Applications	Awards	Success Rate	Applications	Awards	Success Rate
Race												
American Indian or Alaska Native Only	15	3	20.0%	4	0	0%	2	1	50%	1	0	0.0%
Asian Only	144	23	16.0%	143	13	9%	12	7	58%	14	7	50.0%
Black or African American Only	100	15	15.0%	139	6	4%	33	5	15%	12	3	25.0%
Native Hawaiian or Other Pacific Islander Only	5	0	0.0%	2	1	50%	0	0	N/A	0	0	N/A
White Only	486	86	17.7%	471	57	12%	50	7	14%	19	10	52.6%
Mixed/More than one race	215	35	16.3%	180	21	12%	68	8	12%	5	1	20.0%
Unknown/Withheld only	59	10	16.9%	180	6	3%	12	2	17%	6	2	33.3%
Ethnicity												
Hispanic/Latino	75	17	22.7%	119	16	13.4%	13	3	23.1%	12	4	33.3%
Mixed	128	19	14.8%	110	16	14.5%	41	7	17.1%	0	0	N/A
Not Hispanic/Latino	761	127	16.7%	719	68	9.5%	109	17	15.6%	40	17	42.5%
Unknown/Withheld only	60	9	15.0%	171	4	2.3%	14	3	21.4%	5	2	40.0%
TOTAL	1024	172	16.8%	1119	104	9.3%	177	30	16.9%	57	23	40.4



Studies on Success Rate Gap

- Ginther 2011: Black/AA PIs 13% less likely to be funded in analysis of 83k R01s from PhDs
- Ginther 2012: Findings extended to MDs; gap was smaller at medical schools
- Ginther 2016: Black women PhDs more successful than men; Black men MDs more than women
- Ginther 2018: bibliometric differences explained half of gap from 2003-2006
- Hoppe 2019: "Topic choice" explained part of the gap but data not adjusted for IC award rates
- Latinos have not had a gap just low numbers
- Bias is present but not found to be a causal factor





Programs at NIH to Address Workforce

- FIRST: Faculty Institutional Recruitment for Sustainable Transformation — Common Fund program coming soon
- MOSAIC: Maximizing Opportunities for Scientific and Academic Independent Careers: K99/R00 to promote diversity with a UE5 to Mentor and Coordinate: NIGMS with other Ics signed up
- Diversity Supplements to R01s/Centers
- Address challenges through discretionary funding decisions
- Address the overfunded PIs who are almost always entrenched White men that contribute to systemic barriers





Loan Repayment Program at NIMHD

- Equivalent to cash assistance interventions
- Comparison of awardees to non-successful applicants from 2005 to 2016 for L32/L60
- 1894 awardees vs 1868 unsuccessful applicants; about 72% women and 60% from URM
- LRP Recipients: 48% were awarded an NIH grant of any type compared with 26% as of 2019
- R01 recipients: 14% vs. 3%
- LRP is an intervention that promotes diversity of the biomedical workforce



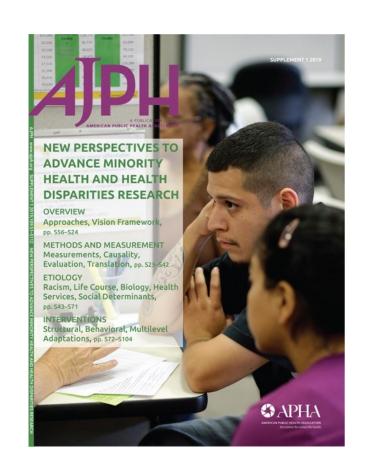
NIMHD Health Disparities Research Institute

- A week-long intensive and engaging training experience launched in 2016
- Target early stage investigators and senior postdoctoral trainees
- Lectures by selected leading scientists in minority health and health disparities focused on 3 themes
- Mock grant review session using real applications
- Meetings with NIH scientific program staff engaged in minority health and health disparities research
- Consultations on the development of research interests into a K or R01 application, as well as research strategies and methodologies for proposed studies
- 204 participants in 4 years, about 60% URM



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 Dr. Eliseo J. Pérez-Stable and NIH Director Dr. Francis S. Collins
- Definitions for minority health, health disparities, and NIMHD Research Framework
- 30 research strategies in methods, measurement, etiology, and interventions
- Multi-year process with more than 100 authors, including NIH program officers and academic scientists



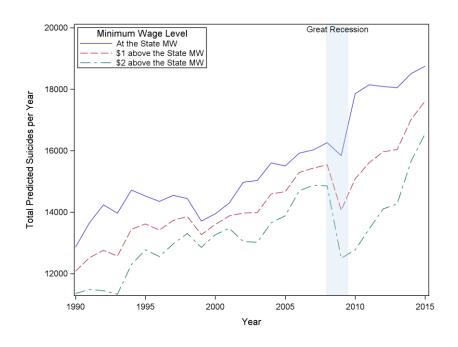
Categories of Racism/Discrimination

- Interpersonal: Most work done, good measures developed, associations established, most common
- Structural: History, culture, institutions, and codified practices that perpetuate inequity; research and systems construct to address disparities
- Internalized: How discrimination (as above) effects individuals who are not aware or sublimate; accept cultural or biological inferiority



Increasing State Minimum Wage Associated with Lower Suicide Rates

- Difference-in-difference models with data from 50 states and DC from 1990 to 2015 to examine state minimum wage laws
- A \$1 increase in minimum wage associated with 3.4% – 5.9% decrease in suicide rate among adults aged 18-64 with a high school education or less



 Increases in state minimum wage also associated with reductions in low-birthweight births, infant mortality, and adult cardiovascular mortality

Grant No. R01MD010241

Kaufman, J., et al., <u>J Epidemiol Community Health</u>. 2020 January 7,2020. [Epub ahead of print].



Insurance Status, Race and Breast Cancer Detection

- Diagnosis of stage I/II BC is curable and the goal of screening
- Retrospective cross-sectional population-based study using SEER on 177,075 women ages 40-64 with stage I/III/III BC from 2010-2016
- Main outcome stage I/II vs. III
- Age 53.5 y, 83.7% had insurance, 16.3% uninsured/ Medicaid, 11.8% Black, 13.5% Latina, 0.6% Al/AN, 10.3% A/PI
- Risk of stage III: Medicaid/uninsured 20% vs 11%
- Adjusted for insurance and SES, OR by race/ethnicity: Blacks 1.29, Latinas 1.17, AI/AN 1.11
- Half of disparity mediated by insurance

Grant No. U54MD012523 Ko NY, et al. <u>JAMA Oncology</u>. 2020 Jan





Race and Ethnicity, Medical Insurance, and Within-Hospital Severe Maternal Morbidity Disparities

- Cross-sectional study using linked 2010–2014 New York City discharge and birth certificate data sets (N=5591,455 deliveries)
- Women insured by Medicaid compared with those with commercial insurance had similar risk for severe maternal morbidity within the same hospital
- Black women and Latinas had significantly higher risk for severe maternal m

	Deliveries	Severe Maternal Morbidity
Insurance		
Commercial	221,479	2.01 (4,462)
Medicaid	358,897	2.88 (10,339)
Race-ethnicity		
Black	122,067	4.2 (5,125)
Latina	177,768	2.85 (5,072)
White	185,095	1.46 (2,708)
Commercial insurance		
Black	30,687	3.73 (1,146)
Latina	33,557	2.24 (751)
White	117,750	1.54 (1,810)
Medicaid insurance		
Black	88,071	4.35 (3,830)
Latina	141,719	2.99 (4,237)
White	64,762	1.31 (850)

Data are n or % (n).

risk for severe maternal morbidity than White women within the same hospital

Grant No. R01MD007651

Howell et all, Obstet Gynecol. 2020 Feb;135(2):285-293



Access to Equitable Kidney Transplantation: Role of Policies

- Only 18.5% of the >500,000 ESRD patients in the US are wait-listed for a kidney transplant with large variability
- African Americans, women, and patients of low SES have poorer access to transplantation
- Compared to White patients, AAs were 37% less likely to be referred and 24% less likely to receive a kidney transplant
- Dialysis Facility data (2014-2017), among 7,346 facilities, the proportion of ESRD patients (<70 years of age) wait-listed ranged from 0% to 92% (Fig)

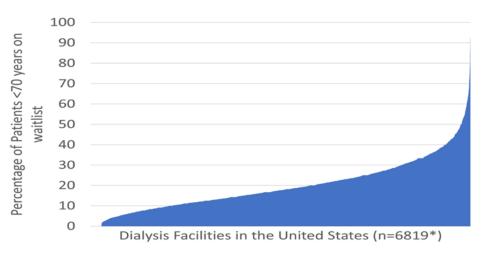


FIGURE: Variation in the proportion of ESRD patients waitlisted across the >7000 US dialysis facilities.

NIH Grant No. U01-MD-010611

Patzer and Pastan. 2020. <u>Journal SDI</u>. 33(1): 58-76





Defining a Vision on a National Stage







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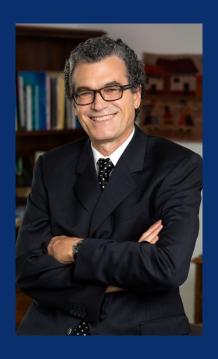


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Discussion



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Next GREAT/GRAND Community Forum

AAMC Legislative Update: August 11 1:00 – 2:00 pm ET

To be invited, email Sr. Administrative Associate Emily Outtarac at eouttarac@aamc.org



Tannaz Rasouli, MPH

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