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

June 6, 2017

Eliseo J. Pérez-Stable, M.D.

Director, NIMHD

National Institute on Minority Health and Health Disparities

NIMHD Legislative and Budget Updates

Consolidated Appropriations Act, 2017

On May 5, 2017, President Trump signed H.R. 244, the Consolidated Appropriations Act, 2017.

NIH will receive a $2 billion increase, or 6.2 percent above FY2016, for a total of $34.3 billion, including $352 million from the 21st Century Cures Act.

NIMHD: $289,069,000.

Congressional Hearings

On May 17: The House Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies, Chairman Tom Cole (R-OK) held a hearing on the NIH. The topic of the hearing was Advancing Biomedical Research. NIH Director Francis Collins testified accompanied by NIAID Director Anthony Fauci, NHLBI Director Gary Gibbons, NIMH Director Joshua Gordon, NCI Acting Director Douglas Lowy, and NIDA Director Nora Volkow.

Planned hearings in June on the budget

Congressional Activities

Senator Benjamin L. Cardin (D-MD) submitted a *Dear Colleague* letter dated April 11, 2017 to the Labor-HHS Appropriations Subcommittee in support of the strongest possible funding for NIMHD.

Engaging With Our Stakeholders

(From left to right) Dr. Jonca Bull, FDA, Dr. Che L. Smith, FDA, Dr. Eliseo J. Pérez-Stable, NIMHD, Dr. Lisa Cooper, Johns Hopkins Medicine, and Dr. Carla Williams, Howard University.

Rep. Robin Kelly (D-IL 2nd District), Chair of the Congressional Black Caucus Health Braintrust and Dr. Eliseo J. Pérez-Stable.

On April 25th - Dr. Pérez-Stable participated on a panel entitled, *Beyond Tuskegee: An Historical & Contemporary Commentary on Clinical Trials, Medical Research & the African-American* Community during the Congressional Black Caucus Spring Health Braintrust held in conjunction with the National Minority Quality Forum.

Budget Update

- FY 2017 Enacted Level: $287,670,000
  - Congressionally appropriated: $289,069,000
  - Funding reduced from the Office of AIDS Research to the NIMHD: ($757,000).
  - Funding transferred to the Administration for Children Families (ACF) in support of the unaccompanied children program: ($642,000).
  - Net funding level is $6.9M (or 2.5%) higher than the FY 2016 Enacted amount.
- Research Centers in Minority Institutions (RCMI)
  - Total funding increased by $1.7M (or 3.0%) for FY 2017.
  - RCMIs to receive not less than $58,461,000
- FY 2018 President's Budget for NIMHD: $214,723,000
  - Net decrease of $74.3M (or 25.7%): FY 2017 - $289,069,000 to FY 2018 – $214,723,000

Primary Actions - Competitive Awards From February 2017 Council

RFA/PA Title	No. of Awards	Awarded YTD
PA-16-294: NIH Support for Conferences and Scientific Meetings (R13/U13)	2	$89,747*
PA-16-160: Research Project Grants (Parent R01)	2	$825,752*
PAR-16-221: Health Services Research on Minority Health and Health Disparities (R01)	2	$1,192,298*

*Partially funded due to budget constraints. Secondary awards will be administered within the next 30 – 90 days.

Primary Actions - Competitive Awards From February 2017 Council – Cont'd

RFA/PA Title	No. of Awards	Awarded YTD
PA-16-187: Mechanisms, Models, Measurement & Management in Pain Research (R21)	1	$236,250*
PA-16-162: Parent R03 Program	2	$137,730*
PAR-16-350: Clinical Research Education and Career Development Program (R25)	1	$484,246*

*Partially funded due to budget constraints. Secondary awards will be administered within the next 30 – 90 days.

NIMHD Staff News

Acting NIMHD Scientific Director

NIMHD Deputy Director **Dr. Joyce A. Hunter** assumed the additional role of Acting Scientific Director, NIMHD on October 1, 2016

Her supplemental duties include providing the overall administrative leadership for the intramural research program and oversee program operations until the new Scientific Director starts.

In April, Dr. Hunter, a cardiovascular physiologist, received the ***Porter Fellowship*** award from the American Physiological Society.

USPHS Achievement Medal

Lt. Cmdr. Xinzhi Zhang was awarded the *Public Health Service Achievement Medal* "for dedicating extensive time and effortless services to big data science, especially in addressing health disparities and promoting diversity and inclusion."

The *PHSAM* is bestowed for displaying meritorious achievement and excellence in accomplishing the mission of U.S. Department of Health and Human Services.

New NIMHD Appointments

Launick Saint-Fort

NIH Undergraduate Scholarship Program

- B.S. in Biochemistry and Molecular Biology from the Penn State University
- Division of Intramural Research Social and Behavioral Group lead by Dr. Kelvin Choi
- Research interest: tobacco use disparities among non-Hispanic Black subgroups

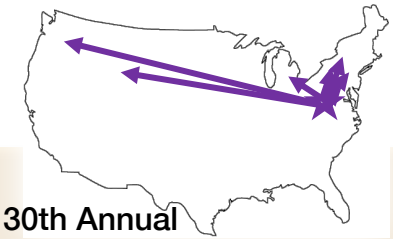
Stephanie Nisson

Office of Administrative Management

- B.S. in Business Administration, University of Maryland University College, Candidate, 2018
- Support for Division of Intramural Research, Office of Communications and Public Liaison, Office of Extramural Research Administration and Office of Strategic Planning, Legislation and Scientific Policy

NIMHD Activities

Promoting NIMHD Vision and Agenda



March 2
University of Washington, Medicine Grand Rounds
Seattle, Wash.

March 23
The Role of Precision Medicine in Health Equity Research Symposium
Ann Arbor, Mich.

April 5-6
Collaborative Research Center for American Indian Health Annual Summit
Sioux Falls, S.D.

April 7
Building Multidisciplinary Approaches to Improve Health Equity Outcomes
Howard University Disparities Symposium, Washington, D.C.

April 12
National Minority Health 5K Walk/Run
Bethesda. Md.

April 14
University of Pennsylvania Samuel P. Martin, III Memorial Lecture, Philadelphia, Pa.

April 19-22
Society of General Internal Medicine Annual Meeting Washington, D.C.

April 25
Minority Health Quality Forum
Congressional Black Caucus Braintrust, Washington, D.C.

April 25
Engaging Minority Patients to Quit Smoking with Culturally Appropriate Interventions - Webinar
Health Services Advisory Group

April 26
Network of Minority Health Research Investigators
15th Annual Workshop w/NIDDK
Bethesda, Md.

May 4
Johns Hopkins University Inaugural Diversity and Inclusion Lectureship
Otolaryngology Department, Baltimore, Md.

May 5-6, National Hispanic Medical Association
21st Annual Conference, National Harbor, Md.

May 15
Hunter College 30th Annual Symposium on Stress and Resilience: The Science of Adapting to a Challenging World
New York, N.Y.

May 20-21
American Thoracic Society International Conference
Tobacco Use in Migrants
Diversity Forum Keynote
Washington, D.C.

May 31
2017 Military Operational Readiness: Precision Medicine Conference
Washington, D.C.

May 31
Society of Prevention Research Annual Meeting, Presidential Keynote
Washington DC

June 1
Inclusion Across the Lifespan, NIA/NICHD Workshop,
Bethesda, Md.

Engaging With Our Stakeholders

On **March 16** NIMHD hosted the Harvard University Morgan Commonwealth Fellows.

Presentations were given by representatives of NIMHD, National Institute of Aging, National Institute of Child Health and Human Development and the National Institute of Diabetes and Digestive and Kidney Diseases.

Recent NIMHD Scientific Workshops

Addressing Health Disparities through the Utilization of Health Information Technology Workshop

May 11-12, 2017

Cosponsors: National Health IT Collaborative, National Science Foundation

Coordinators: Courtney Aklin, PhD and Regina James, MD

To explore ways to ensure that minority and other health disparity populations benefit from the advances in health information technology. Diverse stakeholders discussed the current state of the science and proposed ways to build upon the evidence-based information needed to address important topics such as:

- How to develop health IT systems that allow providers to better address issues such as the role of social determinants on health disparities
- How health IT can enhance treatment, prevention and patient self-management of disease
- How we can use health IT to improve care of among patients with limited English proficiency and limited health literacy

Recent NIMHD Scientific Workshops

Structural Racism/Discrimination – Impact on Minority Health and Health Disparities Workshop

May 22-23, 2017

Cosponsor: HHS Office of Minority Health

Coordinators: Joyce Hunter, PhD and Derrick Tabor, PhD

To identify and understand how to systematically incorporate the construct of structural racism/discrimination into minority and health disparities research.

- Conceptualization of structural racism/discrimination
- Measuring structural racism/discrimination and its impact on health
- Addressing structural racism/discrimination through policy and practice-based research

NIH Scientific Workshops with NIMHD Participation

Inclusion Across the Lifespan Workshop

June 1-2, 2017
Led by NIA, ORWH and NICHD

Purpose: To examine the science of inclusion of various populations in clinical trials and studies.

Jennifer Alvidrez, PhD and Joyce Hunter PhD

- Inclusion/exclusion criteria and their impact on inclusion in clinical trials and studies
- Study designs and metrics for pediatric and older populations in clinical trials and studies
- Ethical challenges and enrollment of vulnerable populations
- Data collection and reporting to support age-specific and subgroup analysis

Upcoming NIH Scientific Workshops with NIMHD Participation

- **Moving Towards the Elimination of Cardiovascular Disparities through Community-Engaged Research.** NHLBI. June 22, 2017
- **The Human Microbiome: Emerging Themes at the Horizon of the 21st Century**. Trans-NIH Microbiome Working Group. August 16-18, 2017
- **Dr. Levi Watkins, Jr. and Dr. Elijah Saunders Memorial Workshop on Health Inequities Research and Training**. NHLBI. August 30-31, 2017
- **Type 2 Diabetes and Obesity Disparities: Enhancing Lifestyle and Self-Management**. NIDDK. October 24-25, 2017
- **Improving Health Research on Small Subpopulations.** National Academy of Medicine with NCI. Date: TBD

Global NIMHD Updates

- Development of NIH Strategic Plan on Minority Health and Health Disparities: Trans-NIH Committee and plan
- RCMI applications in with reviews later in June
- U54 Centers of Excellence applications are in
- American Journal of Public Health Special Supplement on Science Visioning
- Research in Minority Health and Health Disparities Book
- Health Disparities Research Institute week coming August 14-19, 2017
- All of Us Program: beta testing this summer

2017 NIMHD William G. Coleman, Jr., PhD Minority Health and Health Disparities Research Innovation Award

Research Innovator Awards to three NIH Intramural postdocs

Melanie Sabado, PhD, MPH (NIMHD)

- Research project: Assessment of Mental Health Behaviors and Stigma Among Young Adult Pacific Islanders

Tracy M. Layne, PhD, MPH (NCI)

- Research project: Prospective Metabolomic Profiling and Prostate Cancer Risk in Black Men

Candace Middlebrooks, PhD (NHGRI)

- Research project: Investigation of Genetic Risk Modifiers of Leg Ulcer Development in Sickle Cell Patients Using Whole Exome Sequencing and Microbiome Characterization

***William G. Coleman Jr., Ph.D.**, became the first permanent African American scientific director in the history of the NIH Intramural Research Program in January 2011 when he was appointed to direct the NIMHD Intramural Research Program. He was known for his belief in the power of mentorship, and dedicated himself to mentoring and training future scientists, particularly in the area of disparities research.*

NIMHD Extends Hospitality at the NIH Children's Inn

NIMHD staff support the NIH Children's Inn by preparing and serving brunch to thirty residents on Sunday May 7.

The Children's Inn at NIH is a residence dedicated to families whose children are participating in research studies at the NIH. The Inn hosts families from all over the world, without the burden of cost.

Since the *Inn* opened, nearly 13,000 seriously ill children and their families have made 60,000 visits.

NIMHD WORKLIFE COMMITTEE

National Minority Health Month 2017 Activities

NIH Science Day with Mentoring in Medicine, Inc., National Library of Medicine, NIMHD
April 7, 2017

Minority Health 5K Walk/Run
April 12, 2017
NIH

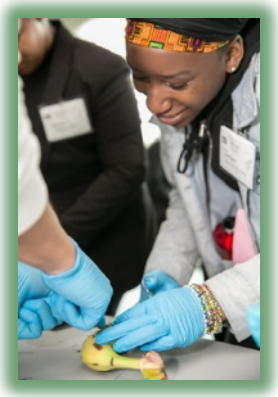
NIMHD Twitter Chat
April 25, 2017

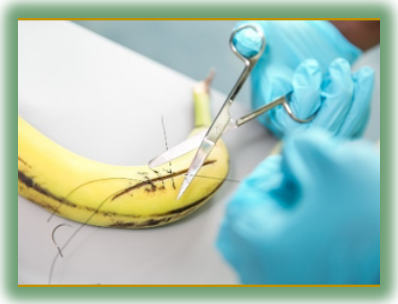
National Minority Health Month Science Day

Friday, April 7, 2017

Held in partnership with the National Library of Medicine and Mentoring in Medicine

Nearly 500 students from across Maryland, Virginia and District of Columbia participated





National Minority Health Month
5K Walk/Run

Wednesday, April 12, 2017

400+ registered participants

Guest speaker Peter Kilmarx, M.D., Assistant Surgeon General and Deputy Director of the Fogarty International Center

Cosponsored with NIH Office of Research Services and the R & W Association

National Minority Health Month
Twitter Chat #HealthEquityChat

Tuesday, April 25, 2017

Co-hosted with HHS Office of Minority Health, and Food and Drug Administration

7,837,526 impressions

1,742 tweets

544 participants

Discussion Topics:

- How the social and environmental determinants of health impact efforts to achieve health equity
- How public health communities can work together to bridge health equity across communities

NIH News

Appointment of Major General James Gilman, M.D., as NIH Clinical Center CEO

- Appointment began January 9, 2017.
- Served 35 years in the U.S. Army, most recently as commanding general of the U.S. Army Medical Research and Material Command, Ft. Detrick, Md. Retired from the U.S. Army in 2013 and served as Executive Director of Johns Hopkins Military and Veterans Institute until June 2016.
- Holds a BS in biological engineering from Rose-Hulman Institute of Technology in Indiana, and a MD from Indiana University School of Medicine and residency in internal medicine and a fellowship in cardiovascular diseases at Brooke Army Medical Center.
- Oversees the Clinical Center's day-to-day operations and management of the 200-bed, 870,000-square-foot research center. Last year, the CC had @ 6,000 inpatient admissions and 100,000 outpatient visits. Every patient is on a research protocol.
- Particular focus: setting a high bar for patient safety and quality of care, including new hospital operations policies.

Dr. Gilman is a cardiologist and highly decorated leader with rich experience in commanding the operations of numerous hospital systems. His medical expertise and military leadership will serve the NIH Clinical Center well as it continues to strive for world-class patient care and research excellence.

– Francis S. Collins, MD, PhD, NIH Director

Former NIH Deputy Director for Management and Chief Financial Officer Retires

- **Colleen Barros** accepted an appointment as Acting United States Deputy Secretary of Health and Human Services on January 20, 2017 and retired on March 1, 2017 - having served more than forty under HHS.

Colleen was the consummate professional. Her playbook for solving seemingly intractable problems was seemingly straightforward, given all of her many successes.

First, she devoted the time and energy needed to truly understand what needed to be accomplished. Next she developed a comprehensive plan that anticipated the challenges that would have to be overcome to achieve the needed goals. Then she put together the multi-talented team, often from across NIH, which was necessary to implement the plan in a timely manner.

- Lawrence A. Tabak, D.D.S., Ph.D., Principal Deputy Director, NIH

Appointment of Dr. Alfred Johnson as NIH Deputy Director for Management

- **Dr. Johnson assumed his new appointment on May 28, 2017, after serving as the Acting Deputy Director for Management since May 2016.**
- **Dr. Johnson previously was Director of the NIH Office of Research Services, Assistant Director of the Office of Intramural Research, Acting Director of the Office of Loan Repayment and Scholarship, and Principal Investigator in the NCI's Laboratory of Molecular Biology.**
- **He received his Ph.D. in biomedical sciences from the University of Tennessee and conducted his doctoral research at the Oak Ridge National Laboratory**

Christine Hunter, Ph.D. ABPP to become Deputy Director, NIH Office of Behavioral and Social Sciences Research

- **Dr. Hunter will join OBSSR in August 7, 2017. Dr. Hunter currently serves as the Director of Behavioral Research at the National Institute of Diabetes & Digestive and Kidney Diseases, and is a Captain in the U.S. Public Health Service.**
- **She was awarded the American Psychological Association's Meritorious Research Service Commendation.**
- **She received her Ph.D. in Clinical Psychology from the University of Memphis**

NIH Grant Support Index Aimed at Optimizing Stewardship of Taxpayer Dollars

Proposal to cap the number of grants a single Principal Investigator may hold at any given time

Driven by understanding that PI bandwidth is not unlimited or can you really run 6 grants?

Need to increase opportunities for early stage investigators to be PI

Dr. Tabak will present in more detail today and at the Advisory Council to the Director on Thursday

NIH Grant Policy Announcement

NIH Policy - Use of a Single IRB for Multi-Site Research

Effective for competing grant applications with receipt dates on or after **September 25, 2017.** Domestic sites participating in multi-site studies involving non-exempt human subjects research funded by NIH are expected to use **a Single Institutional Review Board (sIRB)** to conduct the ethical review required by the DHHS regulations for the Protection of Human Subjects.

Costs – sIRB costs can be a direct or indirect charge to an NIH award as long as such costs are reasonable and consistent with the cost principles.

Exceptions to this policy will be made where review by the proposed sIRB would be prohibited by a federal, tribal or state law, regulation or policy.

FAQ's for sIRB implementation and sIRB cost have recently been posted. Any questions should be sent to SingleIRBPolicy@mail.nih.gov.

See NOT-OD-16-094 and NOT-OD-17-027 for additional information.

Grant Announcements and Funding Activity

Recent Funding Opportunities and Notices

Funding Opportunities	Released
Addressing Suicide Research Gaps: Understanding Mortality Outcomes (R01) RFA-MH-18-410	05/25/2017
Limited Competition: NIMHD Endowment Program for Increasing Research and Institutional Resources (S21) RFA-MD-17-004	05/02/2017
Mechanisms and Consequences of Sleep Disparities in the U.S. (R21) PAR-17-235	03/29/2017
Mechanisms and Consequences of Sleep Disparities in the U.S. (R01) PAR-17-234	03/29/2017
Advancing the Science of Geriatric Palliative Care (R21) PAR-17-226	03/20/2017
Advancing the Science of Geriatric Palliative Care (R01) PAR-17-225	03/20/2017
APOL1 Long-term Kidney Transplantation Outcomes Network (APOLLO) Clinical Centers (Collaborative U01) RFK-DK-16-025	11/16/2016
Serious Adverse Drug Interaction Research (R01) PAR-16-275	10/04/2016

NIMHD R01 and R21 Applications

NIMHD R01 and R21 applications			
	FY 2015	FY 2016	FY 2017
R01 total	159	126	211
R01 scored	61	63	92
R21 total	7	16	134
R21 scored	1	7	45

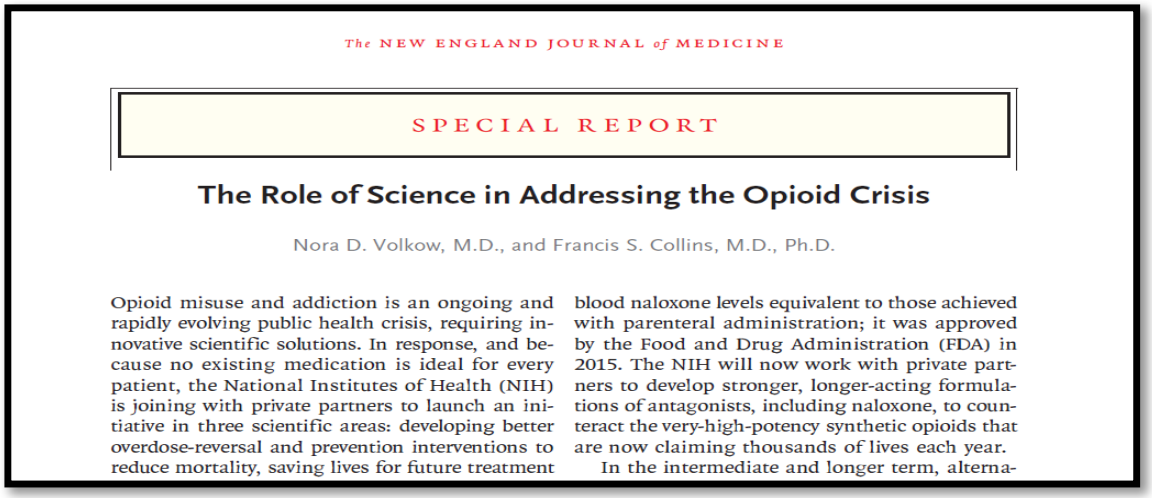
FY 2016 Grant Funding Success

- **NIMHD awarded a total of 33 investigator-initiated R01grants for over $20M.**
- **27% of reviewed applications received awards**
- **Similar success for established and ESI/NI — 77 were NI and 28 were ESI**
- **NIMHD chooses not to publish pay lines for any of its grant mechanisms**
- **Continue strategy of targeted Program Announcements and selected set-asides**

Scientific Updates

All Scientific Hands on Deck to End the Opioid Crisis

Nora D. Volkow, M.D., and Francis S. Collins, M.D., Ph.D.



The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL REPORT

The Role of Science in Addressing the Opioid Crisis

Nora D. Volkow, M.D., and Francis S. Collins, M.D., Ph.D.

Opioid misuse and addiction is an ongoing and rapidly evolving public health crisis, requiring innovative scientific solutions. In response, and because no existing medication is ideal for every patient, the National Institutes of Health (NIH) is joining with private partners to launch an initiative in three scientific areas: developing better overdose-reversal and prevention interventions to reduce mortality, saving lives for future treatment

blood naloxone levels equivalent to those achieved with parenteral administration; it was approved by the Food and Drug Administration (FDA) in 2015. The NIH will now work with private partners to develop stronger, longer-acting formulations of antagonists, including naloxone, to counteract the very-high-potency synthetic opioids that are now claiming thousands of lives each year.

In the intermediate and longer term, alterna-

May 31, 2017DOI: 10.1056/NEJMsr1706626

In 2015, 2 million people had a prescription opioid-use disorder and 591,000 suffered from a heroin-use disorder; prescription drug misuse alone cost the nation $78.5 billion in healthcare, law enforcement, and lost productivity...

“NIH will take an “all hands on deck” approach to developing and delivering the scientific tools that will help end this crisis and prevent it from reemerging in the future.”

Publishing About Big Data Science Research

Xinzhi Zhang, Eliseo J. Pérez-Stable, Phillip E. Bourne, Nancy Breen, et. al.

"In the era of information explosion, Big Data approaches are likely to be able to contribute to understanding the causes of health disparities and to identifying useful opportunities for their reduction, but only if Big Data collection includes health disparities populations and if researchers who focus on these populations are trained to use Big Data.

Big Data could lead to new discoveries and new experiments in health disparities research that were never before possible. To realize this potential, a focus on health disparities is needed during the planning and implementing of Big Data resources."

Original Report:
Big Data
and its Application
in Health Research

BIG DATA SCIENCE: OPPORTUNITIES AND CHALLENGES TO ADDRESS MINORITY HEALTH AND HEALTH DISPARITIES IN THE 21ST CENTURY

Xinzhi Zhang, MD, PhD[1]; Eliseo J Pérez-Stable, MD[1]; Philip E. Bourne, PhD[2]; Emmanuel Peprah, PhD[3]; O. Kenrik Duru, MD, MSHS[4]; Nancy Breen, PhD[1]; David Berrigan, PhD, MPH[5]; Fred Wood, DBA, MBA[6]; James S Jackson, PhD[7]; David W.S. Wong, PhD, MA[8]; Joshua Denny, MD, MS[9]

Addressing minority health and health disparities has been a missing piece of the puzzle in Big Data science. This article focuses on three priority opportunities that Big Data science may offer to the reduction of health and health care disparities. One opportunity is to incorporate standardized information on demographic and social determinants in electronic health records in order to target ways to improve quality of care for the most disadvantaged populations over time. A second opportunity is to enhance public health surveillance by linking geographical variables and social determinants of health for geographically defined populations to clinical data and health outcomes. Third and most importantly, Big Data science may lead to a better understanding of the etiology of health disparities and understanding of minority health in order to guide intervention development. However, the promise of Big Data needs to be considered in light of significant

INTRODUCTION

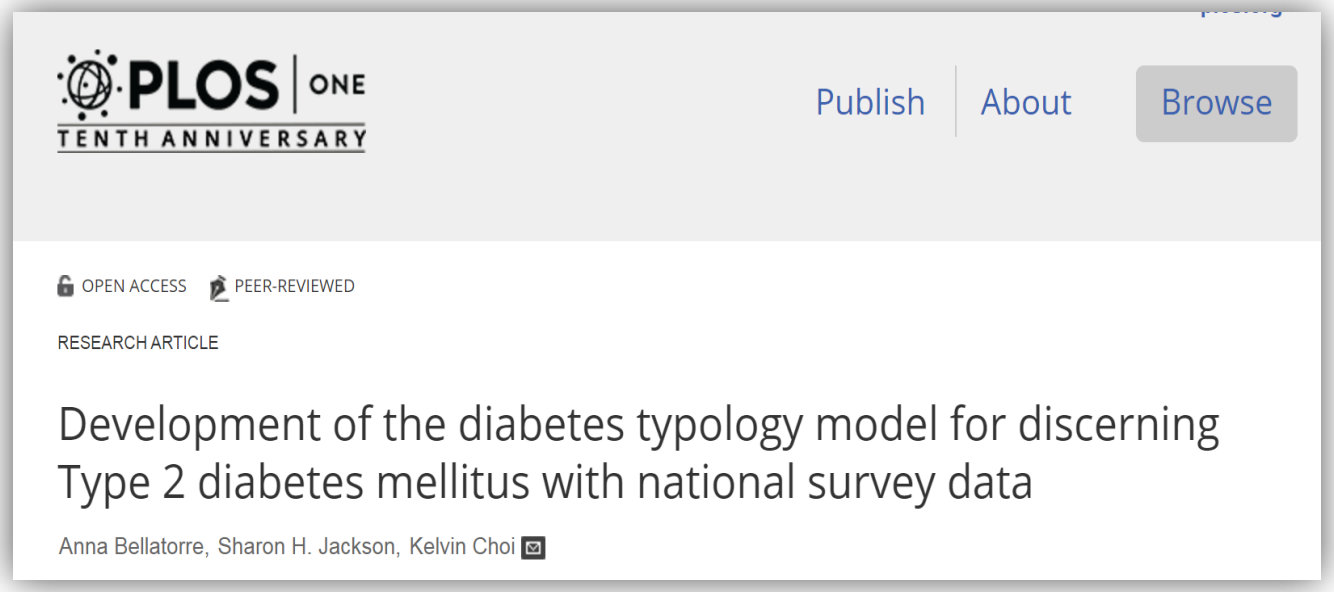
Although scientific and technological advances have improved the health and well-being of the US population overall, racial-ethnic minorities, socioeconomically disadvantaged, and other underprivileged or discriminated-against populations continue to experience a disproportionate share of many acute or chronic diseases and adverse health outcomes.[1-3] Big Data, defined by its volume, variety, velocity, variability, and veracity, is expected to bring significant benefits to health and health care, as it has to other sectors of the analytic methods, and parallel computing of large amounts of biological and clinical data promise to dramatically transform clinical medicine and biomedical science. The growth of publicly traded companies in this arena suggests a belief in future profits in digital health care.[6,7] The question we address is, will the introduction of Big Data into clinical practice and health care research contribute to increasing health disparities or to decreasing them?

In March 2012, the US government announced the Big Data Research and Development Initiative.[8] Not long after, the National Insti-

Ethnicity and Disease, Vol 27, No 2 (2017)

Publishing About Diabetes

Anna Bellatorre, Sharon H. Jackson, Kelvin Choi

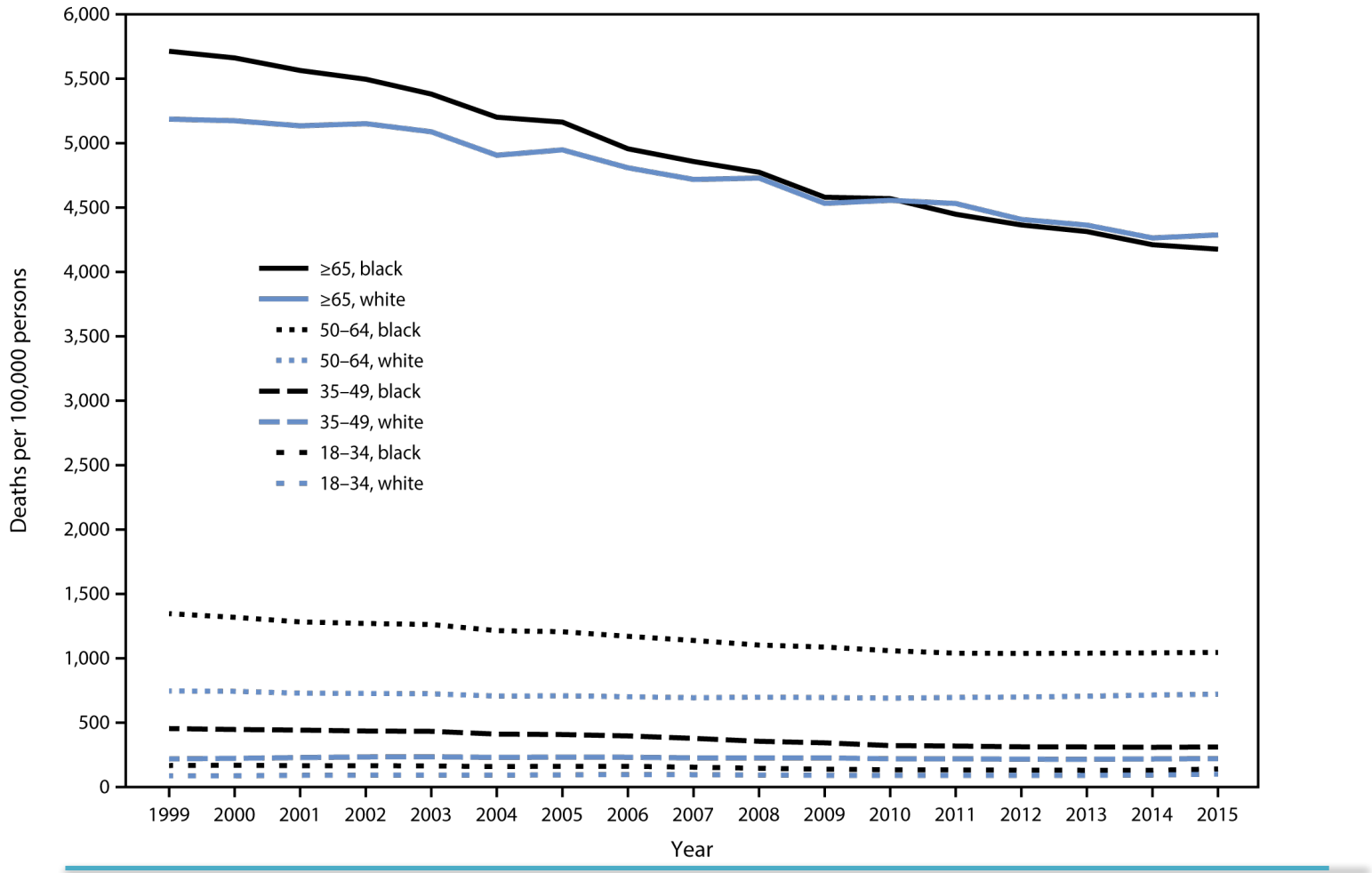


March 2, 2017 https://doi.org/10.1371/journal.pone.0173103

"Our Diabetes Typology Model reflects a promising first step toward discerning likely DM types from population-based data. This novel tool will improve how large population-based studies can be used to examine behavioral and environmental factors associated with different types of DM."

All-Cause Mortality: Whites and Blacks

FIGURE 1. Death rates among blacks and whites, by age group (years) — United States, 1999–2015



Cunningham TJ, et al MMWR 2017; 66:444-456

Trends in Suicide Rates

Age-adjusted Incidence, 1996-2013, age 10 y and older

MMWR, March 17, 2017, 66: 270-273

	1999-07	2008-15
Whites	14.9	18.1
Blacks	6.3	6.5
Asians/PI	6.5	7.0
AI/AN	15.8	20.0
Latinos	6.7	6.8

Diabetes Related ESRD

Age-adjusted Incidence, 1996-2013, age 18 y and older

MMWR, January 13, 2017, 66: 26-32

	1996	2013	%
Whites	12.1	15.5	+28
Blacks	52.2	42.7	–18
Asians	23.1	22.2	–4
AI/AN	57.3	27.5	–54
Latinos	40.1	34.2	–15

Racial Residential Segregation and Blood Pressure, CARDIA, 1985-2010

- 2280 Black participants at age 18-30, 4 sites
- Getis-Ord G* statistic, a measure of SD between neighborhood's % black residents c/w surrounding area; High, medium and low segregation exposure and change in BP
- 81.6% lived in High-RS; SBP increased by 0.16 mm with 1-SD increase in RS score
- Reduction in exposure to RS led to decrease in SBP of –1.33 and –1.19 mm Hg

Kershaw KN, et al JAMA Internal Medicine, May 15, 2017

Incidence of Diabetes among US Youths, 2002-2013

- 5 study centers youths, 0 to 19 y: S Carolina, Ohio, CO, CA, WA
- Type 1 DM: 1.8% adjusted annual increase; highest for Latinos (4.2%)
- Type 2 DM: for 10-19 y, 4.8% adjusted annual increase; girls > boys
- Blacks: 6.3%, Latinos 3.1%, Asian/PI: 8.5%, Am Indian: 8.9%
- Variation by site from –2.6% to 7.9%

Mayer-Davis EJ, NEJM 2017; 376:1419-29

NIMHD-Funded Science Advances

Racial/Ethnic Differences in Use of Smoking Cessation Aids

Soulakova JN, et.al., *J Racial Ethn Health Disparities.* (2017). **R01MD009718,** Evaluating Racial and Ethnic Disparities in the Success of National Health Care Efforts to Promote Smoking Cessation (PI, Soulakova, JN)

Data from the 2010-2011 Tobacco Use Supplement Survey to determine whether race/ethnicity and use of smoking cessation aids were associated with the duration of the last quit attempt and reductions in cigarette consumption among 6672 daily smokers.

39% of smokers used at least one smoking cessation aid during last quit attempt. Use of an aid predicted longer duration of quit attempts by 6 days.

Fewer Black (29%) and Latino (29%) smokers used aids compared to Whites (42%), indicating the need for increased access to and uptake of aids in these populations.

Racial Differences in Caregiving for Stroke Survivors

Skolarus LE, et. al., *Circ Cardiovasc Qual Outcomes.* (2017): 10(2).
R01MD008879, Reducing Racial Disparities in Post-Stroke Disability in the Elderly (MPIs: Skolarus, LE; Burke, JF).

Researchers examined the care that Black (n=225) and White (n=581) stroke survivors received from caregivers using data from the National Health and Aging Trends Study (NHAT) and the National Study of Caregiving (NSOC).

Blacks were more likely than Whites to have a caregiver (62.5% vs. 49.7%) and received an average of 11 more hours of help per week.

There was little difference in unmet need for assistance, indicating increased caregiving was consistent with level of need for Blacks.

Caregivers for Black stroke survivors were more positive about the caregiving role than those for White stroke survivors.

Impact of Health Information Exchange on Antiretroviral Therapy Use, Viral Suppression and HIV Disparities

Cunningham WE, et al., *J Acquir Immune Defic Syndr*. 2017 Mar 25.
P20MD000182, CDU/UCLA Project EXPORT Center (PI: David Martins)

Ineffective delivery of HIV/AIDS care can delay antiretroviral therapy (ART) use, impede viral suppression (VS) and contribute to racial/ethnic disparities along the continuum of care.

Researchers tested whether a laboratory health information exchange (LHIE) intervention improved ART use and VS and among diverse HIV+ patients (N=1,181) in Southern California over three years.

Significant Black/White disparities in ART use and VS existed at baseline. After the intervention, these disparities decreased after adjusting for demographics and HIV care visits.

Latinos had greater odds than Whites of ART use and VS, adjusting for covariates.

Transition between alcohol detox and substance abuse treatment is linked to follow-up services among Alaska Native People

Running Bear, U et. al., *Addictive Behaviors,* 2017 Feb;65:25-31. **P60 MD000507,** Center for American Indian and Alaska Native Health Disparities (PI: Spero Manson)

Researchers examined 3 critical points on the substance abuse continuum of care among Alaska Native people: alcohol detoxification completion, acceptance of referral to substance abuse treatment, entry into substance abuse treatment.

Retrospective cohort of 383 adult Alaska Native patients admitted to a tribally owned and managed inpatient detoxification unit.

75% completed detoxification treatment. Higher global assessment functioning scores, longer lengths of stay, and older ages of first alcohol use were associated. Secondary drug diagnosis was associated with not completing detoxification.

36% accepted a referral to substance abuse treatment. Men, those with legal problems, and those with a longer length of stay were more likely to accept a referral.

58% had a confirmed entry into a substance abuse treatment program at discharge. Length of stay was the only variable associated with substance abuse treatment entry.

Services like motivational interviewing, counseling, development of therapeutic alliance, monetary incentives, and contingency management are effective.

An Intervention to Increase Equity and Reduce Disparities in Kidney Transplant Referral

Patzer RE, et al., *J Am Soc Nephrol*. 2017 Mar;28(3):935-942. **U01MD010611**,Reducing Racial Disparities in Access to Kidney Transplantation: the RaDIANT Regional Study (PI: Rachel Patzer)

Reducing Disparities in Access to Kidney Transplantation Community Study (RaDIANT): RCT involving >9000 patients receiving dialysis from 134 dialysis facilities in Georgia

Transplant education and engagement activities targeting dialysis facility leadership, staff and patients. The proportion of patients with prevalent ESRD in each facility referred for transplant within one year was the primary outcome.

Compared with control facilities, intervention facilities referred a higher proportion of patients for transplant at 12 months. The difference was higher among black patients.

The intervention increased referral and improved equity in kidney transplant referral for patients on dialysis in Georgia. Long-term follow-up is needed to determine whether the effects lead to more transplants.

Trends in Racial and Regional Disparities in Cervical Cancer

Yoo W, et al., *PLoS ONE*. 2017;12(2):e0172548. **U54MD008149**, RCMI Translational Research Network (RTRN) (PI: Elizabeth O. Ofili)

The **Surveillance, Epidemiology, and End Results (SEER) 18 Program** data was used.

Black race and South region were associated with higher cervical cancer incidence and mortality.

Cervical cancer rates uncorrected for hysterectomy may underestimate regional and racial disparities.

Increasing incidence rates for older NHBs compared to NHWs warrant further research to determine whether screening should continue for NHBs over age 65.

Cost Effectiveness of the Supplemental Nutrition Assistance Program

Choi SE, et.al., *Am J Prev Med*. 2017 May; **P2MD010478**, Cohort filtering models to identify social program effects on health disparities (PI: Sanjay Basu)

One strategy to incentivize fruits and vegetables (FV) consumption among low-income households is to make them more affordable through the **Supplemental Nutrition Assistance Program** (SNAP).

Despite cycling of participants in and out of SNAP, expanding an FV subsidy nationwide through SNAP would be expected to reduce incidence of type 2 diabetes by 1.7% (95% CI=1.2, 2.2), myocardial infarction by 1.4% (95% CI=0.9, 1.9), stroke by 1.2% (95% CI=0.8, 1.6), and obesity by 0.2% (95% CI=0.1, 0.3), and be cost saving from a societal perspective.

The saved costs would be largely attributable to long-term reductions in type 2 diabetes and cardiovascular diseases.

Pain Treatment of Underserved Older African Americans

Yazdanshenas H, et.al., J Am Geriatr Soc. 2016 Oct;64:2116-2121
U54MD007598, Accelerating Excellence in Translational Science (AXIS) (PI, Vadgama, Jay)

Examined patterns and correlates of pain medication use: severity of pain, medical conditions, and access to care, in 400 African Americans ≥ 65 recruited from 16 churches located in south Los Angeles. Structured face-to-face interviews and visual inspection of each participant's medications were conducted. More than 39% of participants were aged 75 and older, and 65% were women, 47% used at least one type of pain medication.

The type of pain medication use was: nonopioid, 33%; opioid, 12%; adjuvant, 9%; and other drug, 8%. 77% of nonopioids were nonsteroidal anti-inflammatory drugs (NSAIDs), which 25% of participants with hypertension, 28% with stroke, 26% with kidney disease, and 28% with gastrointestinal problems used.

Participants who used NSAIDs, 98% experienced potentially inappropriate medication (PIM) use, 69% experienced drug duplication, and 65% experienced drug-drug interactions.

Participants who were taking NSAIDs, were older with multiple chronic conditions.

This study suggests severe mismanagement of pain in underserved older African Americans, particularly those with comorbidities, multiple clinicians, and limited access to health care.

Gestational Age Predictors Based on DNA Methylation Provides New Tools for Clinical Research

Knight AK et.al., **An epigenetic clock for gestational age at birth based on blood methylation data**. *Genome Biology.* 2017 Feb.**R01MD009064** (PI: Alicia Smith)

Differences in gestational age (GA) as small as one week have been shown to have significant impacts on neonatal morbidity and mortality, as well as long-term outcomes. Prediction of GA based on ultrasound and last menstrual period estimates are not always reliable.

DNA methylation data from 1434 neonates, representing 15 independent cohorts, were used for this study. Results show that DNA methylation based GA is consistent with established measures such as ultrasound.

DNA methylation can be used to accurately estimate GAS at or near birth and may provide additional information relevant to developmental stage.

Council Discussion and Questions