

49th Meeting of the NIH Advisory Committee on Research on Women's Health

Elizabeth Spencer
Deputy Director
Office of Research on Women's Health
National Institutes of Health
October 23, 2019





Reminder: Special Government Employees (SGE)

- Subject to the same ethics rules that apply to government employees
- Rules located in “Standards of Ethical Conduct for Employees of the Executive Branch”
- ACRWH members are required to disclose any real, potential, or apparent conflict(s) of interest
- ACRWH members may not engage in any lobbying activities while attending committee meetings of ACRWH-sponsored events



New SGE Procedures

- Electronic submission of Confidential Financial Disclosure Report (OGE form 450) via NIH Ethics Enterprise System (NEES)
- ACRWH 2019 slate is first to use new system
- Conflict of Interest (COI) updates will be pre-populated with data from previously filed forms

Saluting Retiring Member



Rachel Jones, Ph.D., R.N.
Associate Professor
School of Nursing
Northeastern University



Scott Hultgren, PhD

Helen L. Stoeber Prof. of Molecular Microbiology; Dir., Center for Women's Infectious Disease Research, Washington Univ. School of Medicine in St. Louis



Sabra Klein, PhD

Assoc. Prof. Dept. of Molecular Microbiology and Immunology, Dept. of Biochemistry and Molecular Biology, Bloomberg School of Public Health, Johns Hopkins University



Judy Regensteiner, PhD

Director, Center for Women's Health Research, School of Medicine, Univ. of Colorado, Anschutz Medical Campus



Michelle Robinson, DMD, MA

Interim Dean
School of Dentistry, University of Alabama at Birmingham



Alyson McGregor, MD, MA

Assoc. Prof. of Emergency Medicine, Director, Division of Sex and Gender in Emergency Medicine, Alpert Medical School, Brown University



Neel Shah, MD, MPP

Asst. Prof., Obstetrics, Gynecology, and Reproductive Biology, Harvard Medical School; Dir., Delivery Decisions Initiative, Ariadne Labs, Harvard University



49th Meeting of the NIH Advisory Committee on Research on Women's Health

Janine Austin Clayton, M.D.

NIH Associate Director for Research on Women's Health
Director, Office of Research on Women's Health
National Institutes of Health

Director's Report

October 23, 2019



Elijah Cummings

United States House of
Representatives | Maryland

1951 - 2019





NIH leadership update

Retiring



Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S.
Director



National Institute of Environmental Health Sciences
Your Environment. Your Health.



Ann Cashion, PhD, RN, FAAN
Acting Director



National Institute
of Nursing Research



NIH leadership update

Congratulations!



Debara L. Tucci, M.D., M.S., M.B.A.

Director



National Institute on
Deafness and Other
Communication Disorders



Santa Tumminia, Ph.D.

Acting Director

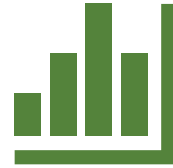


National Eye Institute
Research Today...Vision Tomorrow





Susan K. Gregurick, Ph.D.



Meet the new Director of Office of Data Science Strategy

Mission

To catalyze new capabilities in biomedical data science by providing trans-NIH leadership and coordination for modernization of the NIH data resource ecosystem, development of a diverse and talented data science workforce, and building strategic partnerships to develop and disseminate advanced technologies and methods.



NORA D. VOLKOW, M.D.
National Institute on
Drug Abuse



**PATRICIA FLATLEY
BRENNAN, R.N., PH.D.**
National Library of Medicine



HELENE LANGEVIN, M.D.
National Center for
Complementary and
Integrative Health



ANDREA T. NORRIS
Center for Information
Technology



SANTA TUMMINIA, PH.D
National Eye Institute*



**MARTHA J. SOMERMAN,
D.D.S., PH.D.**
National Institute of Dental
and Craniofacial Research



**DEBARA L. TUCCI, M.D.,
M.S., M.B.A.**
National Institute on Deafness
and Other Communication
Disorders



DIANA W. BIANCHI, M.D.
Eunice Kennedy Shriver
National Institute of Child
Health and Human
Development



NONI BYRNES, PH.D.
Center for Scientific Review

LEADING THE WAY



National Institutes of Health
Office of Research on Women's Health



NORA D. VOLKOW, M.D.
National Institute on
Drug Abuse



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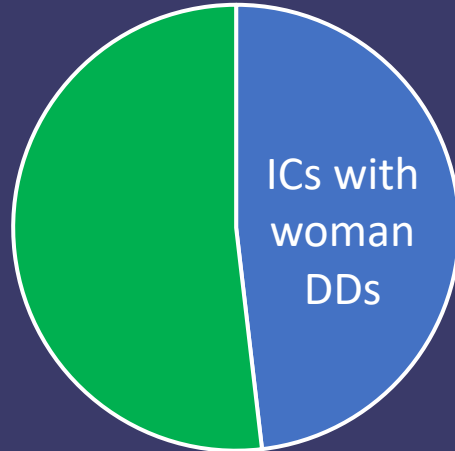


**DEBORAH A. ANDERSON,
PH.D.**
National Institute of
Mental Health

**13 of 27 ICs have woman
deputy directors!**

Disorders

Development



NONI BYRNES, PH.D.
Center for Scientific Review

LEADING THE WAY



National Institutes of Health
Office of Research on Women's Health

ORWH's Mission



Enhance and expand
women's health research



Include women and minority
groups in clinical research

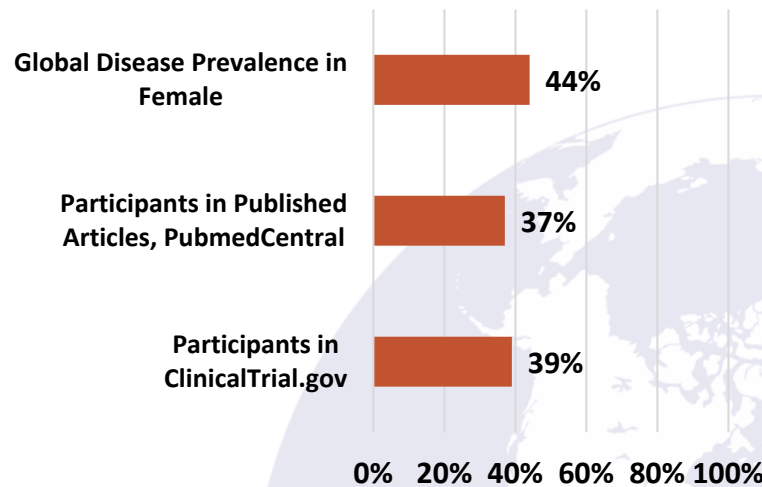


Promote career advancement for
women in biomedical careers

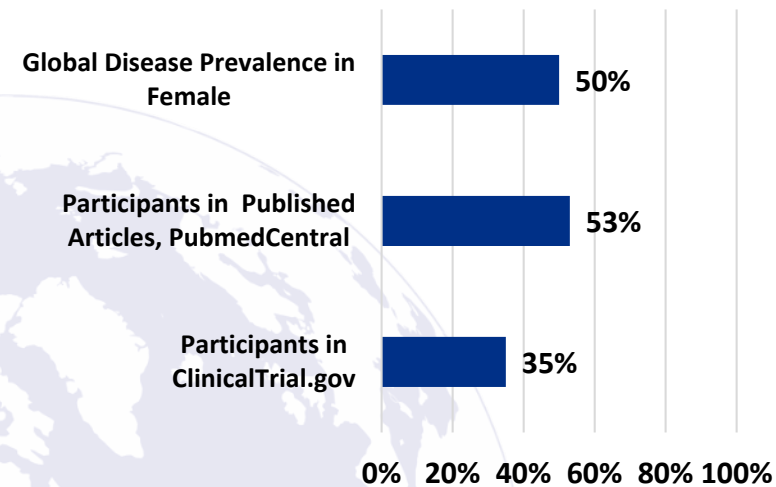
Globally speaking,
 women continue
 to be
 underrepresented
 in clinical studies
 across multiple
 disease categories

Automated analyses:
 43,135 articles
 13,165 clinical trial records

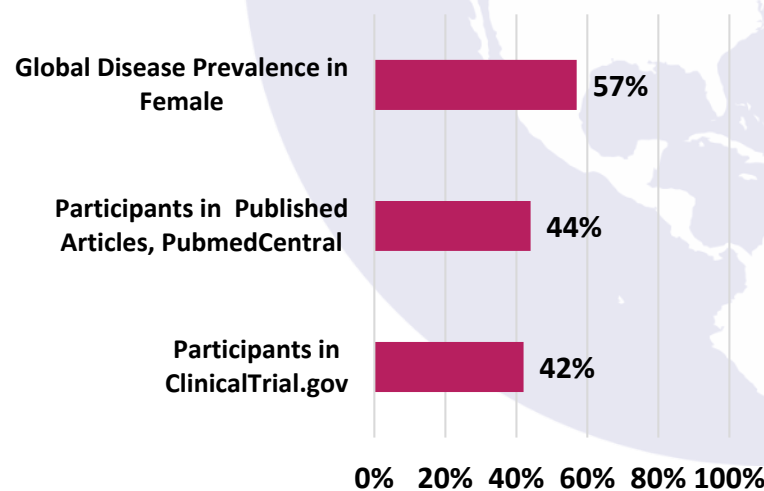
Hepatitis A,B,C, & E



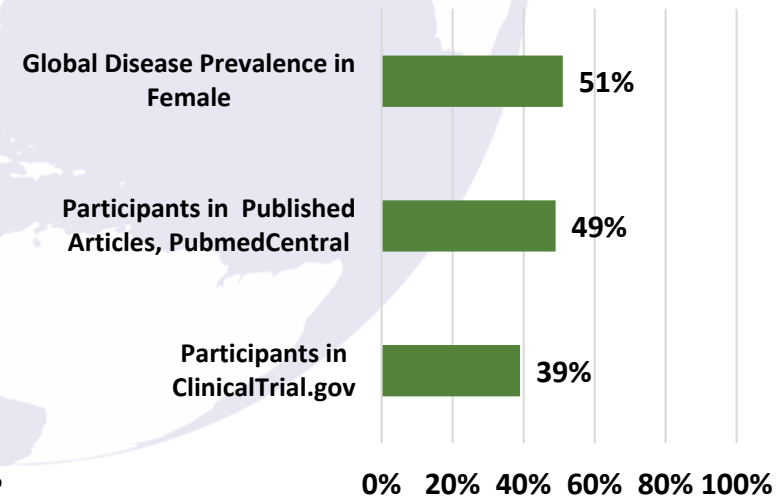
HIV/AIDS



Chronic Kidney Disease



Cardiovascular Disease



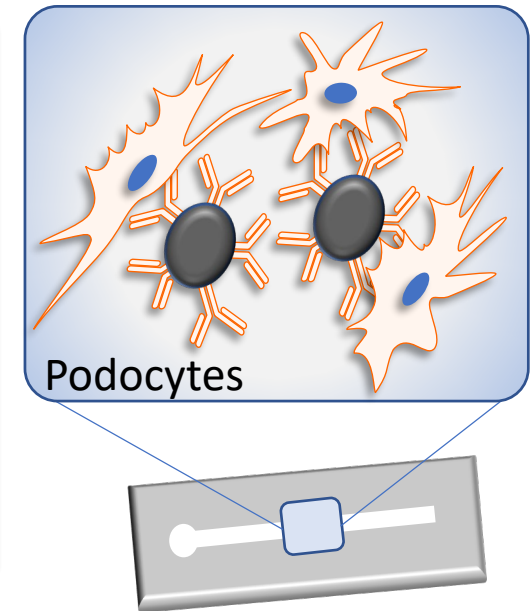
Another way to improve health outcomes is to develop objective point-of-care diagnostic tools

Elevating Standards of Care via Objective Diagnostic Tools

Test	Cutoff	Sensitivity (%)	Specificity (%)	Pretest probability for preeclampsia			
				5%		25%	
				Positive predictive value (%)	Negative predictive value (%)	Positive predictive value (%)	Negative predictive value (%)
sFLT-1*	7463 pg/mL	83	58	9.4	98.5	39.7	91.1
	9795 pg/mL	71	68	10.5	97.8	42.5	87.6
Endoglin*	21.3 ng/mL	94	58	10.5	99.5	42.7	96.7
	24.6 ng/mL	86	63	10.9	98.8	43.7	93.1
Serum PIGF [†]	84.92 pg/mL	74	58	8.5	97.7	37.0	87.0
	102.7 pg/mL	86	47	7.9	98.5	35.1	91.0
Urine PIGF [†]	1.22 pg/mL [‡]	79	50	7.7	97.8	34.5	87.7
	2.18 pg/mL [‡]	86	38	7.5	98.4	33.9	90.4
Podocin*	0.85 cells [‡]	100	100	100.0	100.0	100.0	100.0
Nephrin*	0.75 cells [‡]	93	75	16.4	99.5	55.4	97.0
Podocalyxin*	0.83 cells [‡]	93	75	16.4	99.5	55.4	97.0
Synaptopodin*	1.11 cells [‡]	93	81	20.5	99.5	62.0	97.2

Point-of-care device to identify patients at risk for preeclampsia

Goal:
Development of a peptide-modified bead POC device to unambiguously diagnose preeclampsia in the 2nd trimester before women are symptomatic
(SBIR-R44)





Outline

- I. Scientific Collaborations**
- II. Research Programs
- III. SABV Update
- IV. Women in Biomedical Careers
- V. Building Connections

NIH Institute & Center Mission Areas

ORWH Mission

- To enhance research related to diseases, disorders, and conditions affecting women
- To help ensure that women are appropriately represented in biomedical research supported by the NIH
- To improve the advancement of women in biomedical careers

Trans-NIH Strategic Plan for Women's Health Research



NIH Vision

- Sex and gender influences are integrated into the biomedical research enterprise
- Every woman receives evidence-based disease prevention and treatment tailored to her own needs, circumstances, and goals
- Women in science careers reach their full potential

ORWH contributes \$1M to planning grants to study effects of pre/postnatal opioid exposure on brain development

R34 planning grants for 3 of 6 sites for the HEALTHY Early Development Study

- Emory, Case Western, OSU Ctr. for Health Sci.
- **To refine design of this large-scale, 6-site study of maternal substance use effects on children's brain, cognitive & emotional development (prenatal → mid-childhood)**

R34 feasibility study of technology to minimize motion-induced biases in MRI of young, opioid-affected cohorts

- University of Pennsylvania
- **Addresses in-scanner motion by children, which is exacerbated by the association between prenatal opioid exposure & ADHD**



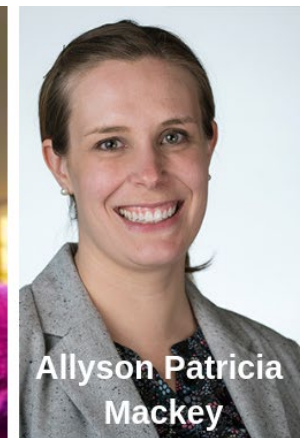
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Study finds endometriosis research underfunded¹

Highly prevalent (10% of women of reproductive age), painful, costly

- Yet, research is underfunded and disease, under-researched
- Slow advance in much-needed diagnostic and treatment options

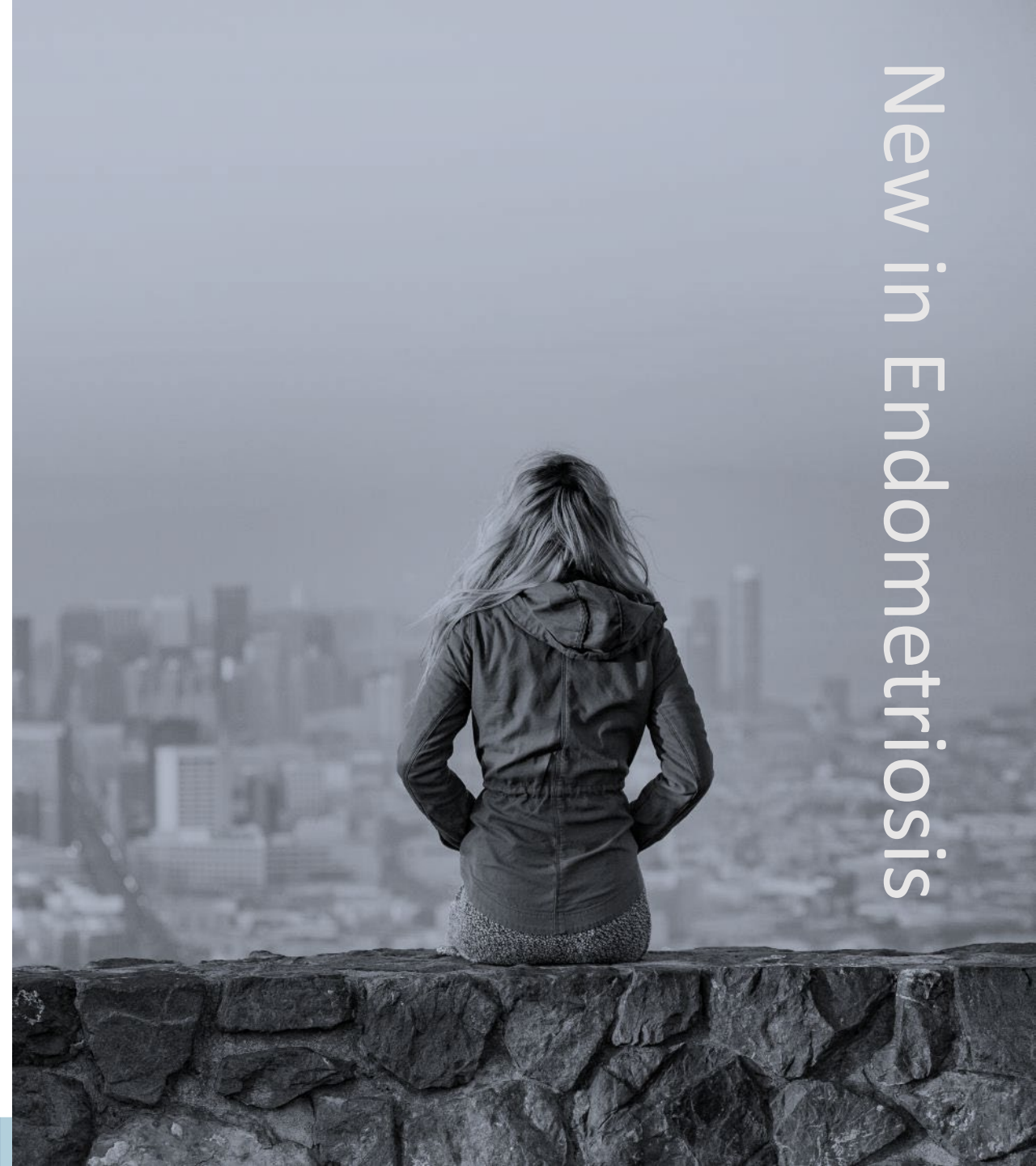
Lack of awareness among patients, providers and public

- Societal normalization of women's pain
- Stigma around menstrual issues

¹As-Sanie S. et al. 2019. *Am J Obstet Gynecol*. 221(2):86-94. doi: 10.1016/j.ajog.2019.02.033

²Tandon HK, Stratton P, Sinaii N, et al. 2019. *Reg Anesth Pain Med* Epub ahead of print: doi:10.1136/rapm-2019-100529

New in Endometriosis



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Botox relieves endometriosis-associated pain, spasms, disability²

Open-label proof-of-concept case series.
Participants: women with endometriosis³ and chronic pelvic pain persisting despite surgical and hormonal treatments



³Surgically diagnosed



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Botox relieves endometriosis-associated pain, spasms, disability²

Pain	
Prior to	Moderate (median VAS score 5/10) varied widely (VAS score range: 2–7)
4-6 weeks after	<ul style="list-style-type: none"> • All reported reduction in pain (median VAS=2, range 0–5/10, p<0.0001) • 11 of 13 rated pain as absent or mild
Spasms	
Prior to	11 of 13 had palpable spasm in at least 4 pelvic floor muscles
Follow-up	Not detectable or less widespread
Disability	
Prior to	<ul style="list-style-type: none"> • 5, moderately disabled; 2, severely disabled; 1, crippled
Follow-up	<ul style="list-style-type: none"> • 6 of 8 experienced improvement



Women's Health Issues partnered with VA to highlight importance of sex & gender differences in veterans affairs research

- June 25th issue supported by VA Cooperative Studies Program
- Features research reports & commentaries on growing number of women vets and their unique health needs
- Commentary by Bevans & Clayton: Integrating the Influence of Sex and Gender in Research: Keeping Women Veterans in Focus*
 - Quality medical care stems from integrated consideration of military-related health needs and influence of sex & gender on health
 - Combat stress & exposure affect women differently than men
 - How do combat exposures in a woman's 20s affect her health decades later?
 - Are sex differences among veterans related to their service or to the same sex differences civilians have, or to a complex combination of factors?

#WomensHealth
is trending

Center for Devices and Radiological Health
Health of Women Program Strategic Plan



Center for Devices and Radiological Health

Health of Women Program Strategic Plan



Announcing CDRH's Health of Women Program Strategic Plan: Why It Matters for All Women and Their Access to Safe and Effective Medical Devices

The FDA's Center for Devices and Radiological Health (CDRH) [Health of Women Program](#) recognizes the importance of addressing sex- and gender-specific issues in medical technology design, development, and implementation. Our program extends beyond reproductive and gynecologic health. Our approach is comprehensive – it considers a woman's entire body.

CDRH's Health of Women Program:

- **Explores** unique issues related to the performance of medical devices in women
- **Improves** analysis and communication of sex- and gender-specific data to better assure the safe and effective use of medical devices
- **Develops** and implements health science programs, strategies and initiatives focused on women's health issues across CDRH

[Read the Strategic Plan](#)



The FDA seeks public feedback on CDRH's Health of Women Program's new Strategic Plan through a public docket in the Federal Register under docket number FDA-2019-N-3804. The last day to submit comments to the docket is December 23, 2019. Your input will help shape how CDRH implements the program.

[Submit Comments](#)

Questions?

If you have questions about CDRH's Health of Women Program contact: CDRHHealthofWomen@fda.hhs.gov



21st Century Cures Act advances research on the health of women

- Inclusion policy updates
- IC strategic plans must take into account women and minorities and include details on reduction of health disparities for women and minorities
- CCRWH reconstituted to be composed of IC Directors or their senior-level designees

Public Law 114-255, Sec. 2031 & 2038



Image by dcandau from Pixabay

NIH-defined phase III clinical trials and applicable clinical trials* must report results –

- stratified by sex/gender, race and ethnicity in ClinicalTrials.gov

Clinical research studies should include individuals of all ages

- unless there are sci. or ethical reasons not to

*Subset of clinical trials subject to FDA Amendments Act



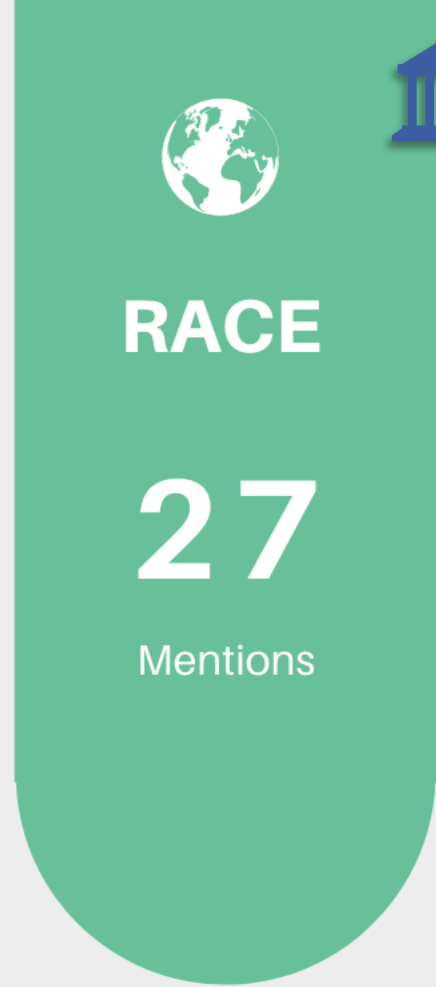
NIH's 2nd

INCLUSION ACROSS THE LIFESPAN WORKSHOP

SEPTEMBER 2-3, 2020

NATCHER CONFERENCE CENTER

NIH MAIN CAMPUS



National Institute of Arthritis and Musculoskeletal and Skin Diseases

STRATEGIC PLAN FISCAL YEARS 2020-2024

Turning Discovery Into Health

- “Health and Disease in Diverse Populations” theme
- “Advancing and Accelerating Systemic Rheumatic and Autoimmune Diseases Research” goal -- a women’s health research priority

Working across NIH to advance the health of women



Trans-NIH Strategic Plan



NIH Institutes and Centers



Implementation and Evaluation



Office of Research on
Women's Health



Working across NIH to advance the health of women

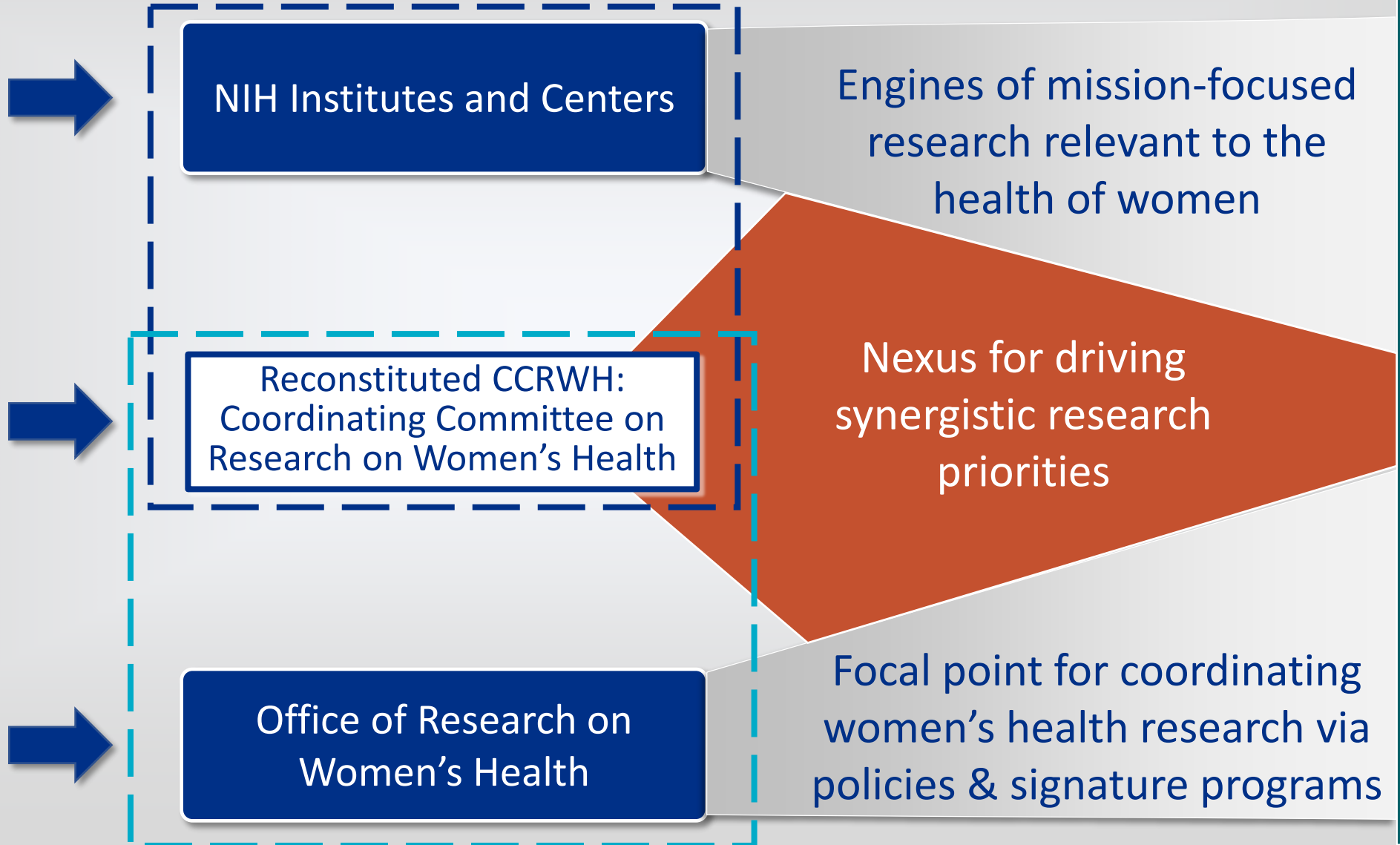


Trans-NIH Strategic Plan



ADVANCING SCIENCE FOR THE HEALTH OF WOMEN
Trans-NIH Strategic Plan for Women's Health Research

2019-2023



N
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V
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i
o
n

BOLD



Readiness

Significant

Innovative

Synergy

Impact



“real public health need”

“more efficient and cost-effective if we do it together”

“an idea that hasn’t gotten our focus”

“benefit from increased, focused trans-NIH effort”

“think beyond what’s right in front of us”

The NIH CCRWH generates *bold ideas* on women's health



Maternal
Morbidity
& Mortality



Careers



Social Determinants
Health Disparities
Exposures



Disease/Condition
Prevention &
Management



Implementation
Science



Mechanisms/
'omics/
Microbiome



Data Science



Institutional
Development
Award

MMM Headlines

ANNOUNCING

NIH APPLE & HARVARD

WOMEN'S HEALTH STUDY

Collaboration will permit researchers to study conditions, including:

- Pregnancy
- Infertility
- Polycystic ovary syndrome (PCOS)
- Menopausal transition and
- Osteoporosis.

Apple's new Research App will help users participate in the study. NIEHS will provide expert advice and data analysis.



Addressing a Compelling Challenge for the Health of Women -- MMM



Tara Schwetz, Ph.D.



Dorothy Fink, M.D.



Sarah Foster, M.P.H.



Johannie Escarne, M.P.H.



National Institutes of Health
Turning Discovery Into Health

PREGNANCY & MATERNAL CONDITIONS THAT INCREASE RISK OF MORBIDITY AND MORTALITY

Meeting, May 19-20, 2020

NICHD - ORWH - ICs

ORWH-cofunded study finds life course impact of pregnancy complications

Women who experience complications (such as preterm births & preeclampsia) during 1st pregnancy are developing hypertension soon after – **some within 3 years**

- They're **nearly 2X more likely than women without complications** to develop hypertension later
- 31% with at least one adverse outcome experienced chronic hypertension (v. 17% for those without)

Study underscores need for

- Greater focus on pregnancy histories
- Possibly, closer health monitoring & more lifestyle counseling to prevent hypertension

Haas DM et al. 2019. *Journal of the American Heart Association*. 8: e013092.
doi.org/10.1161/JAHA.119.013092



National Heart, Lung,
and Blood Institute



NICHD



Anne Lang Dunlop, MD, MPH



EMORY
UNIVERSITY
SCHOOL OF
MEDICINE



National Institutes of Health
Office of Research on Women's Health



National Institute
on Minority Health
and Health Disparities

FY19 Sex/Gender Admin. Supp. explores role of fetal sex in maternal health

Cardiometabolic complications, including hypertensive disorders and GDM –

- Contribute to US's excessive rates of maternal mortality (MM) and racial disparity in MM
- Increases mothers' increased lifetime risk of CV and metabolic disease
- Risk factors & biomarkers can't adequately identify at-risk women
- Research will investigate whether:
 - Distinct lipidomic profiles in early and/or later pregnancy associate with cardiometabolic complications
 - Differences in lipidomic profile occur according to fetal sex
- Participants will be pregnant Black women 18-40

NICHD Strategic Plan 2020

Healthy pregnancies.
Healthy children.
Healthy and optimal
lives.

- Understanding the Molecular, Cellular, and Structural Basis of Development
- Promoting Gynecologic, Andrologic, and Reproductive Health
- Setting the Foundation for Healthy Pregnancies and Lifelong Wellness
- Improving Child and Adolescent Health and the Transition to Adulthood
- Advancing Safe and Effective Therapeutics and Devices for Pregnant and Lactating Women, Children, and People with Disabilities

NICHD Strategic Plan 2020

Healthy pregnancies.
Healthy children.
Healthy and optimal lives.



ORWH coordinating resources to drive impact in maternal health



NIH National Institutes of Health
Office of Research on Women's Health

4th Annual NIH Vivian W. Pinn Symposium

Improving Maternal Health: Behind the Numbers

Celebrating 20 Years of National Women's Health Week

National Institutes of Health (NIH)
Building 1, Wilson Hall

May 15, 2019
12:00-4:30 p.m. Eastern Time

4TH ANNUAL NIH
VIVIAN W. PINN
SYMPOSIUM



[f /NIHORWH](#)
 [t @NIH_ORWH](#)
 [g nih.gov/women](#)
[#NIHPinnSymposium](#)
 [#MaternalHealth](#)
 [#NWHW](#)

NIH National Institutes of Health
Office of Research on Women's Health
Putting science to work for the health of women

RESEARCH SCIENCE POLICY SEX & GENDER CAREER DEVELOPMENT ABOUT NIH INSTITUTES & HHS AGENCIES

HOME RESEARCH FUNDED RESEARCH & PROGRAMS

Maternal Morbidity and Mortality

Welcome

Research

- Funded Research and Programs
- Maternal Morbidity and Mortality
 - Welcome
 - Information for Women
 - Ongoing Studies and Publications
 - Funding Opportunities
 - Additional Resources
- Interdisciplinary Research
- Clinical Research & Trials
- Resources

Information for Women
Discover resources available for mothers on Maternal Health, Pregnancy-Related Complications, Chronic Conditions, Pregnancy Loss, and Data.
[Read More](#)

Events

- 4th Annual NIH Vivian W. Pinn Symposium
May 15, 2019

Director's Messages

- National Women's Health Week/Strategic Plan
May 7, 2019
- Epigenetics and the Health of Future Generations
August 22, 2018
- National Women's Health Week: A Reminder that Putting Yourself First Doesn't Mean Putting Others Last
May 15, 2018
- Celebrating Women's History Month
March 20, 2018

Ongoing Studies and Publications

- Ongoing Studies
- Publications

[Read More](#)

Funding Opportunities

- HIV/AIDS Maternal, Adolescent and Pediatric Therapeutics Clinical Trials Network Leadership and Operations Center (UM1 Clinical Trial Required)
- Safety and Outcome Measures of Pain Medications Used in Children and Pregnant Women (R01 Clinical Trial Optional)
- Safety and Outcome Measures of Pain Medications Used in Children and Pregnant Women (R21 Clinical Trial Optional)

[Read More](#)

Additional Resources

- Federal Resources
- For Scientists/Clinicians
- Reports/Toolkits

[Read More](#)

Maternal Health Across NIH
Content Coming Soon

MATERNAL MORBIDITY AND MORTALITY

What Do We Know?
How Are We Addressing It?

2019

4TH ANNUAL NIH
VIVIAN W. PINN
SYMPOSIUM

NIH National Institutes of Health
Office of Research on Women's Health
www.nih.gov/women/maternalhealth

ORWH coordinating resources to drive impact in maternal health



NIH National Institutes of Health
Office of Research on Women's Health

4th Annual NIH Vivian W. Pinn Symposium

Improving Maternal Health: Behind the Numbers

Celebrating 20 Years of National Women's Health Week

Symposium*

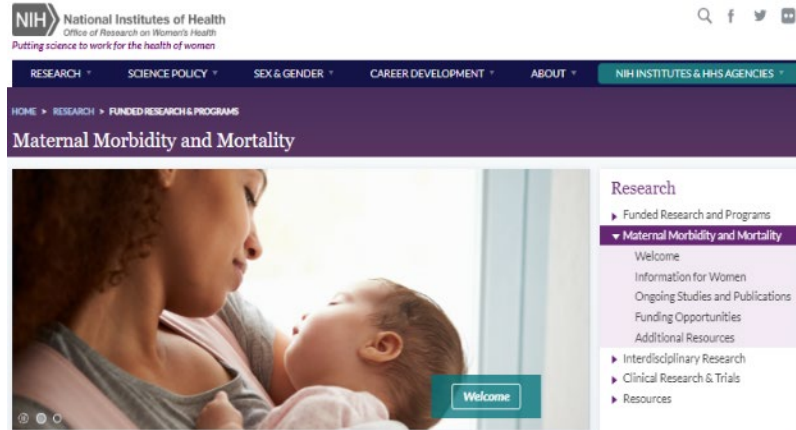
>680 people reached

- 113 in person
- 567 via videocast

Federal Representation:

HRSA | CDC | FDA

*As of 10/01/19



Web Portal**

2236 Total

1520 Unique

Sources

ICOs – HHS - CDC - ACOG

HRSA - Others

**As of 10/01/19



MMM Booklet**

600 Disseminated

Trans-HHS resource
summarizes >50 publications
and resources



Outline

- I. Scientific Collaborations
- II. Research Programs**
- III. SABV Update
- IV. Women in Biomedical Careers
- V. Building Connections



2019 - 2023

ADVANCING SCIENCE FOR THE HEALTH OF WOMEN

Trans-NIH Strategic Plan for Women's Health Research

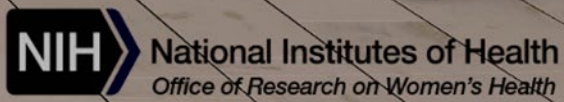
Goal 1 

Goal 2 

Goal 3 

Goal 4 

Goal 5 



Advance rigorous research that is relevant to the health of women.

Goal 1 

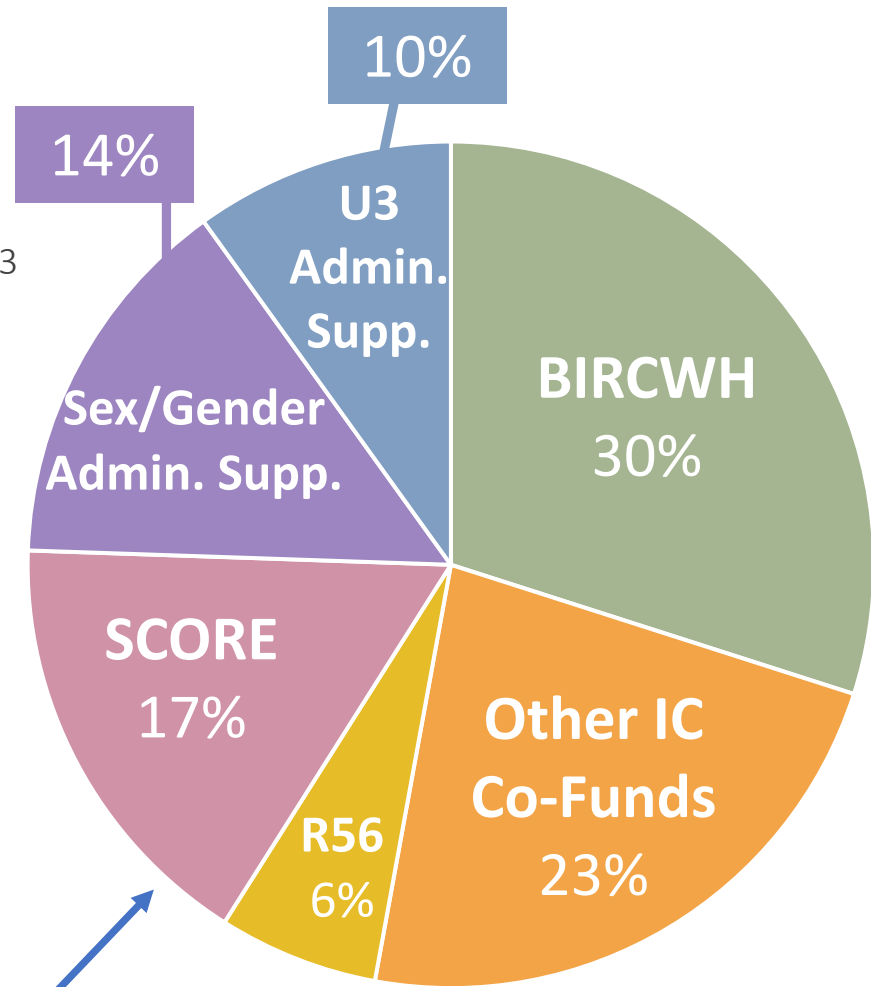
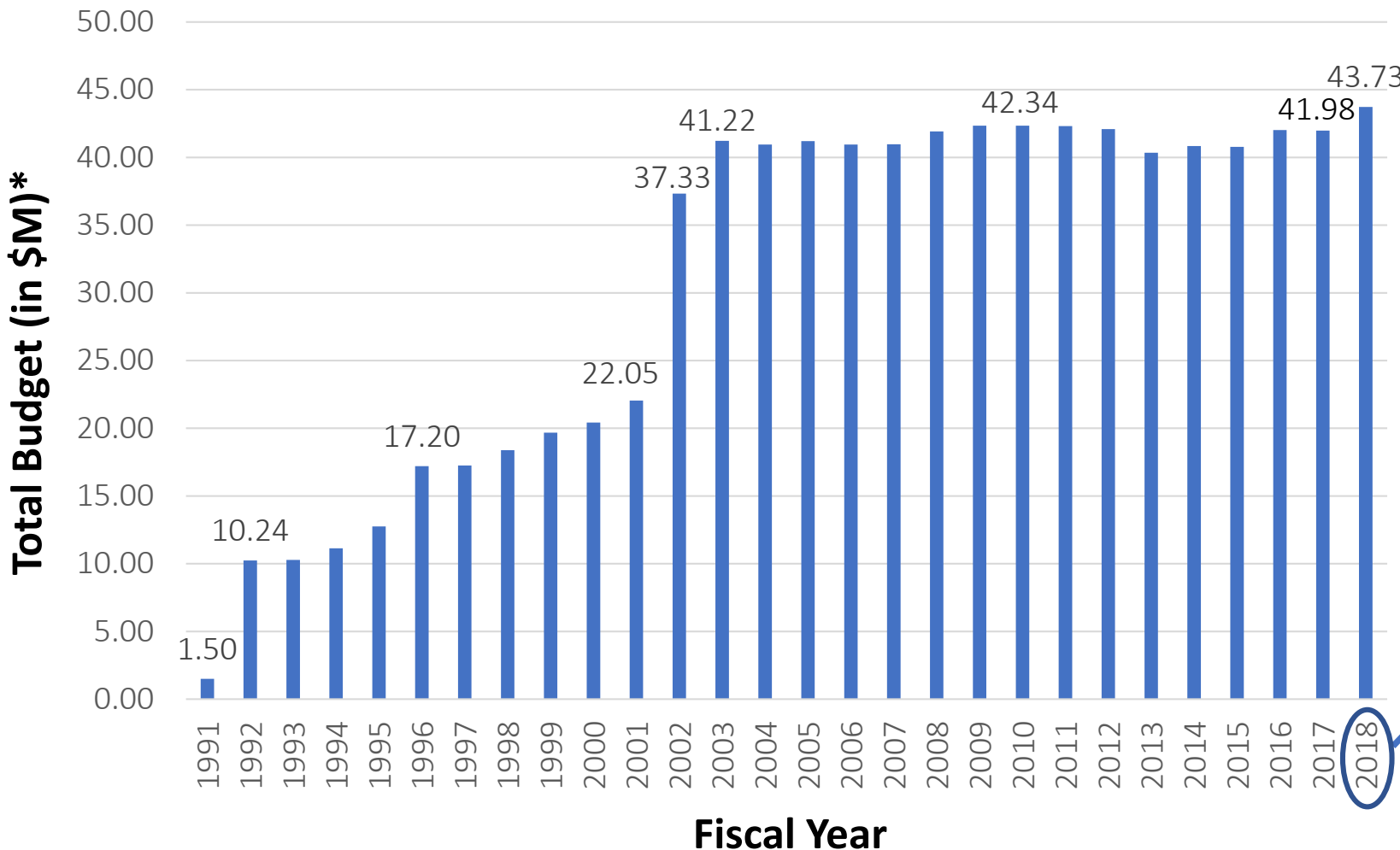
Goal 2 

Goal 3 

Goal 4 

Goal 5 

ORWH Funding History & FY18 Extramural Award Profile



Extramural Award Profile
(as % of Extramural Budget)

*Data not adjusted for inflation



What's the SCORE?

- **UCLA'S SCORE SEEKS TO UNDERSTAND SEX DIFFERENCES IN CARDIO-METABOLIC DISEASE**



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National Institutes of Health
Office of Research on Women's Health



SCORE research on sex differences in MetSyn could improve diagnosis & treatment

Investigating sex differences in risk factors & treatments for Metabolic Syndrome, incl. obesity, insulin resistance/diabetes, dyslipidemia

- Differences in susceptibility are known
- But underlying mechanisms, genetic and physiological, are poorly defined

Investigating from multiple perspectives, such as effects of

- Estrogen
- XX vs. XY sex chromosome
- Genetic variation

Identifying factors that determine sex-specific risk may lead to better diagnosis & treatment for both sexes



RO1 Intersection of Sex & Gender Influences on Health & Disease

ORWH FIRST!

ORWH's first RO1 is a major milestone. On the eve of our 30th Anniversary, With a \$1M contribution, ORWH is taking research on sex and gender influences to the next level.

INTERSECTION

RO1 supports disease-agnostic research across scientific disciplines to understand how sex and gender factors intersect with health and disease.

NIH FIRST!

NIH's first RO1 on sex and gender. It reaffirms its commitment to advancing research of sex and gender influences and advancing ORWH's mission.

TRANS-NIH & STRATEGIC

A collaboration with 11 ICs, RO1 supports research that addresses Strategic Goal 1 of the Trans-NIH Strategic Plan for Women's Health Research.



National Institutes of Health
Office of Research on Women's Health

RFA-OD-19-029 TIMELINE



NIH PARTNERS



NCCIH
NIA
NHGRI
NIAAA
NIAID
NIDA
NIDCR
NIEHS
NIMH
NINR
SGMRO

<https://grants.nih.gov/grants/guide/rfa-files/RFA-OD-19-029.html>



National Institutes of Health
Office of Research on Women's Health

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- II. Research Programs
- III. SABV Update**
- IV. Women in Biomedical Careers
- V. Building Connections



SABV in ACTION

“We’re looking for differences and we’re finding them”

Young women’s cancer death rate is higher than young men’s – incidence rate, substantially so

NIH Annual Report to the Nation on the Status of Cancer

- Overall, men fared worse – their average annual incidence¹ and death² rates were higher
- **But among young women**, ages 20 to 49...
 - Death rate was **27.1 v. 22.8** among young men
 - Incidence rate was **203.3 v. 115.3** among young men
- Overall death rates in this age group are declining
 - But declining at faster rate among men: 2.3% v. 1.7%

¹ Per 100K people, 2011-2015

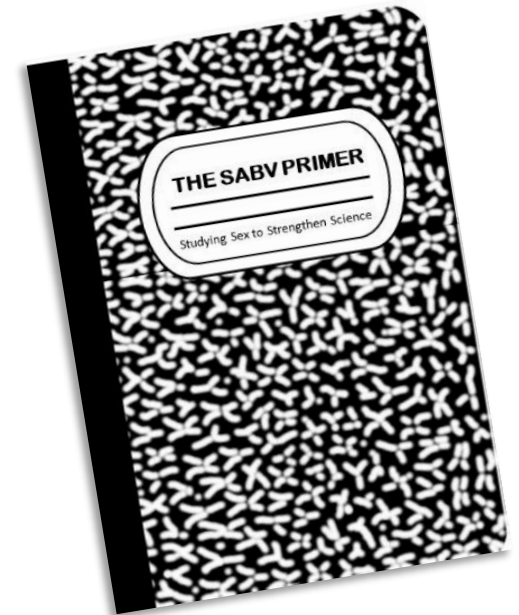
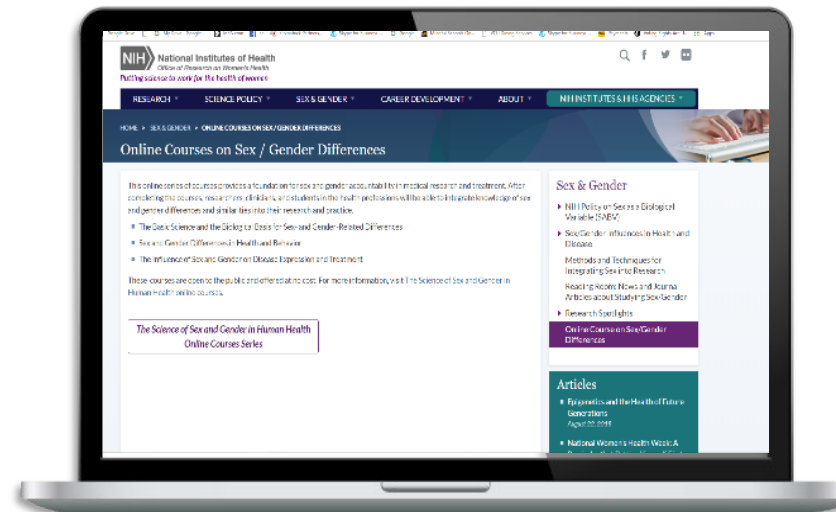
² Per 100K people, 2012-2016

https://seer.cancer.gov/report_to_nation/

SABV DISSEMINATION

ORWH is developing courses to educate biomedical community on sex and gender

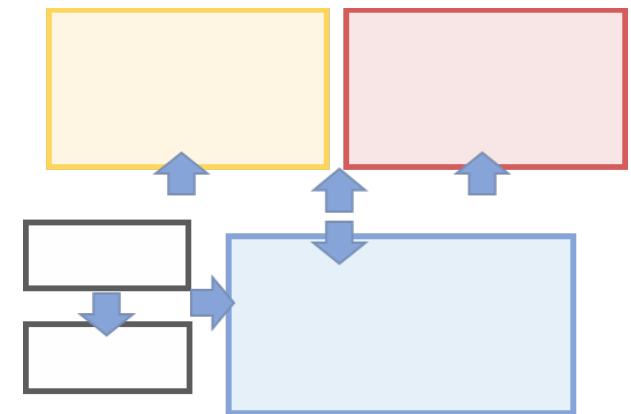
- Bench to Bedside: Integrating Sex & Gender to Improve Human Health (Updated)
FDA Office of Women's Health
- Sex as a Biological Variable Primer* (New)



*in development

ORWH is developing comprehensive SABV evaluation tools

- Development of statistically reliable evaluation tools:
 - To assess SABV in grant applications
 - To identify relevant reviewer comments in summary statements
- Pilot testing of the analysis tools on select applications and corresponding summary statements
- Assessment of the inter-rater reliability of the tools
- Evaluation of the tools' utility, validity, and limitations
- Refine tools for large scale analysis





Study Reveals Sex-Based Differences in the Development of Brain Hubs Involved in Memory and Emotion

Findings may help researchers understand why mental disorders present differently in males and females during adolescence

October 2, 2019 | Research Report

Researchers at the National Institute of Mental Health (NIMH), part of the National Institutes of Health, have discovered sex-based differences in the development of the hippocampus and amygdala. These brain areas have been implicated in the biology of several mental disorders that impact males and females differently. The findings, which appear in the journal *NeuroImage*, may help researchers better understand sex-based differences in the emergence of mental disorders during adolescence and early adulthood.

Fish AM et al. 2019. Sex-biased trajectories of amygdalo-hippocampal morphology change over human development. *NeuroImage* (available online) <https://doi.org/10.1016/j.neuroimage.2019.116122>

At ORWH's urging, ICs are increasingly highlighting studies that identify sex influences or differences

- NIMH press release promoted recently published *NeuroImage* article
 - Co-author: Armin Raznahan, inaugural speaker for Sex & Gender in Health & Disease Scientific Interest Group (SGHD SIG)
- NIMH and Director Joshua Gordon's Twitter accounts highlighted article

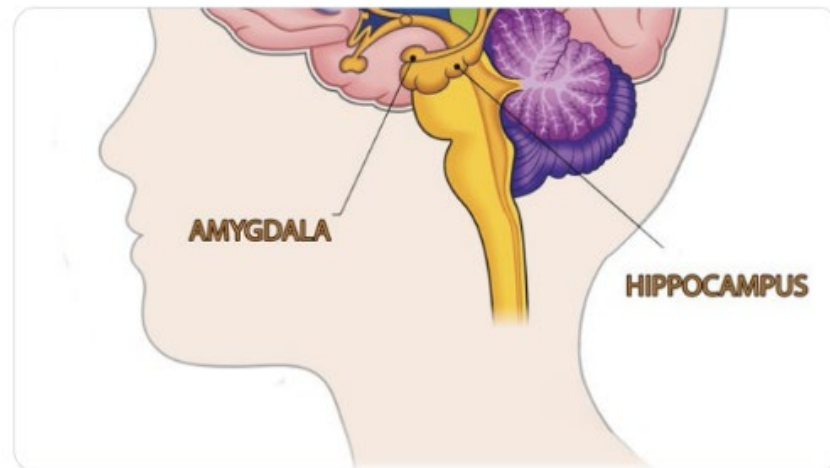


Study Reveals Sex-Based Differences in the Development of Brain Hubs Involved in Memory and



Joshua A. Gordon @NIMHDirector · Oct 7

The amygdala and hippocampus—parts of the brain involved in emotion/learning/memory—play a role in several mental disorders. After examining over 1,500 brain scans, @NIMHgov researchers found differences in amygdala development between males & females: go.usa.gov/xVAde



1 22 65

emergence of mental disorders during adolescence and early adulthood.

Fish AM et al. 2019. Sex-biased trajectories of amygdalo-hippocampal morphology change over human development. *NeuroImage* (available online) <https://doi.org/10.1016/j.neuroimage.2019.116122>

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Outline

- Scientific Collaborations
- Research Programs
- SABV Update
- **Women in Biomedical Careers**
- Building Connections

Stay tuned for NASEM report!

EXAMINE

- How women's participation varies **across disciplines**
- How intersection of race & gender **impacts WOC**
- What interventions have produced **sustained improvements** in representation and leadership
- Why effective interventions **haven't been scaled up or adopted**

DEVELOP

- Actionable recommendations to improve **representation and leadership**

**Key
Dates**

03.2020
FINAL REPORT

03.19.2020
SYMPOSIUM
NIH



ACD Working Group on Changing the Culture to End Sexual Harassment

Working Group's Charge

Assess current state of sexual harassment allegation investigation, reporting, remediation, and disciplinary procedures at NIH-funded organizations;

Advise on oversight, accountability, and reporting measures for awardee institutions that will encourage a reduction in, and prevention of, sexual harassment in biomedical research laboratories;

Propose actions and policies that would promote a safe and inclusive culture at NIH-supported research conferences;

Suggest system-wide changes to culture and climate to prevent harassment and gender discrimination through diffusion of hierarchical environments by mentoring networks and committee-based advisement + strong and diverse leadership;

Develop strategies for encouraging research on anti-harassment policies, procedures, and training, as well as measures and evaluations of their effectiveness.

No More Manels

"When I consider speaking invitations, I will expect a level playing field, where scientists of all backgrounds are evaluated fairly for speaking opportunities. If that attention to inclusiveness is not evident in the agenda, I will decline to take part."

Francis S. Collins, M.D., Ph.D.
Director, National Institutes of Health
06.12.19



National Institutes of Health
Office of Research on Women's Health

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Media Response

NBC, 6/13 14M

Twitter*

Engagements 22K

Impressions 1.69M

ORWH

Twitter

Impressions 4,961

LinkedIn

Views 3,340

*@NIHDirector



National Institutes of Health
Office of Research on Women's Health

Outline

- Scientific Collaborations
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- **Building Connections**

Media coverage advances case for women's health research



German Public Radio, July 23, 2019

“Neuroscience: Do too many male experimental animals distort the results?” Interview with Chyren Hunter, Ph.D. reached 2M listeners.



Lasker Foundation, June 17, 2019

“Stopping the leaks.” About the Action Collaborative on Preventing Sexual Harassment in Higher Education.



Research!America's National Health Research Forum, Sep. 5, 2019

“Women Researchers Leading Discovery” panel discussion.



The Washington Post, Oct. 19, 2019

“Women are more than twice as likely as men to suffer from PTSD. Studies are underway to find out why”

PUBLICATIONS



VICTORIA CARGILL, M.D. & JANINE A. CLAYTON, M.D.

Schweinhart A. 2019. Addressing Health Challenges of Women Across the Life Course: Summary of the Women's Health 2018 Preconference Symposium. *J Womens Health* 28(6):741-746.
doi: 10.1089/jwh.2019.29027.pcsc

MARGARET BEVANS, PH.D., RN, FAAN & JANINE A. CLAYTON, M.D.

Integrating the Influence of Sex and Gender in Research: Keeping Women Veterans in Focus. *Women's Health Issues* 29: S9-11.
doi.org/10.1016/j.jwhi.2019.05.001

ELENA GORODETSKY, M.D., PH.D.

Bowers ME et al. 2019. Relations between catechol-O-methyltransferase Val158Met genotype and inhibitory control development in childhood. *Developmental Psychobiology* E-published. doi:10.1002/dev.21901

DAVID A. THOMAS, PH.D.

Spaniol ED et al. 2019. Addressing the opioid crisis: social and behavioral research contributions at the National Institutes of Health. *Translational Behavioral Medicine*, doi: 10.1093/tbm/ibz038.



National Institutes of Health
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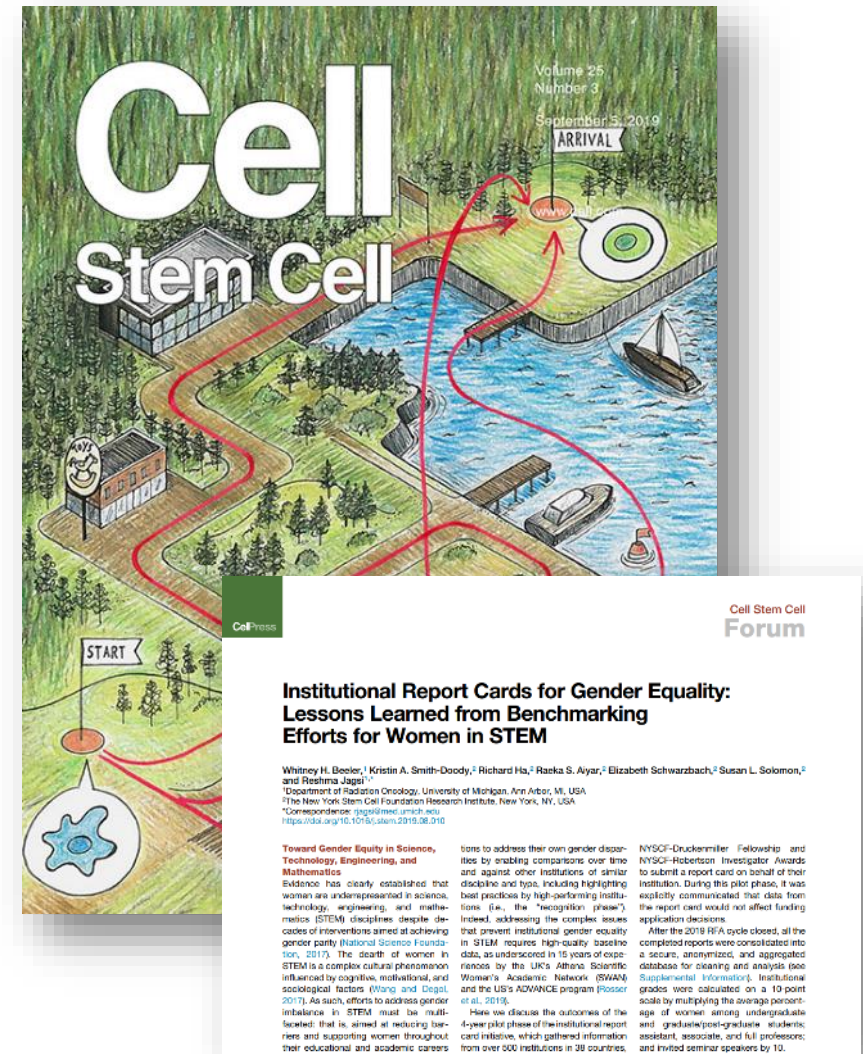
WOMEN'S HEALTH *In Focus* AT NIH



Fall Issue's Top Story: Stress, Its Effects on the Health of Women, and Stress Mitigation

Circulation >18,000

Subscribe bit.ly/ORWHInFocus



Beeler et al. 2019. Institutional Report Cards for Gender Equality: Lessons Learned from Benchmarking Efforts for Women in STEM. *Cell Stem Cell* 25(3): 306-310.



Upcoming Events

Dec. 11, 2019 BIRCWH Meeting

2020

March 19 NASEM Symposium on Consensus Study, NIH

May 4-7 **OSSD Keynote and ORWH Travel Awards**

May 12 **Annual Vivian W. Pinn Symposium**

May 19-20 Pregnancy & Maternal Conditions that Increase Risk of Morbidity & Mortality Symposium

April 20-21 50th ACRWH Meeting

Sep. 2-3 NIH Inclusion Across the Lifespan Workshop

Oct. 13 **BIRCWH 20th Anniversary**

Oct. 20 ACRWH Meeting

Oct. 21 30th Anniversary Scientific Symposium

1990 – 2020



**OFFICE OF RESEARCH
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*Advancing the Health of
Women Through Science*

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