53rd Meeting of the NIH Advisory Committee on Research on Women's Health

Janine Austin Clayton, M.D., FARVO
NIH Associate Director for Research on Women's Health
Director, Office of Research on Women's Health
National Institutes of Health

April 14, 2021 – Director's Report

New in Sex and Gender

Growing attention to SABV in popular and scientific media

CONSUMER

- Blood pressure may need to be monitored differently, according to a new study | CNN.com
- Women report worse side effects after a COVID vaccine | *NYT*
- Biomedical research must consider how sex and gender influence health | Morning Consult
- Progress in considering sex as a biological variable | NPR's Science Friday [with ORWH's Dr. Chyren Hunter]

https://www.sciencefriday.com/segments/sex-biological-variable/

SCIENTIFIC

- Considering sex as a biological variable will require a global shift in science culture | *Nature Neuroscience* and Drug Monkey Blog
- Endocrine Society issues scientific statement on sex differences in research | *Endocrine News*
- Sex differences in immune responses to viral infection | *The Scientist*
- Defining valid chronic stress models for depression with female rodents | *Biology Psychiatry*
- Sex-specific genetic architecture in response to American and ketogenic diets | *Nature*
- How sex differences play a role in neurological diseases | *Neuroscience News*

"I have worked with vascular cells for 20 years and, up until maybe about five years ago, if you asked if the sex of my cells mattered at all, I would have said no," Clyne said. Then, she worked on a difficult study in which **data appeared "all over the place."**

"We separated the cell data by sex, and **it all made sense**. **It was an awakening** for me that we should be studying this."

Dr. Alisa Morss Clyne, *Neuroscience News*, 3/16/21

Alisa Morss Clyne, Ph.D.
Director, Vascular Kinetics Laboratory
Associate Professor
Associate Chair, Diversity, Equity, and Inclusion
Fischell Department of Bioengineering

https://neurosciencenews.com/neurodegeneration-sex-differences-18050/

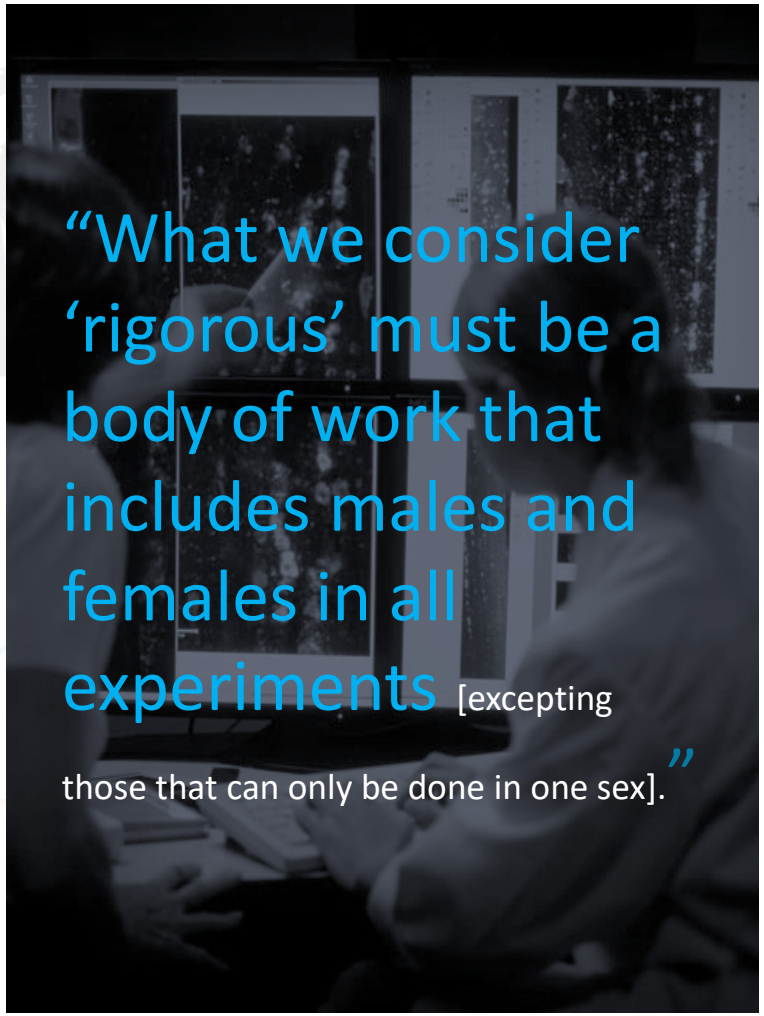
Shansky and Murphy call for “global shift in science culture”

The Situation

- View that how disease presents in men is “the standard” is pervasive
- Use of male rodents as the default model organism in preclinical neuroscience research has likely contributed to higher rates of misdiagnosis, adverse drug side effects
- Incentive structure in publishing prioritizes extended research of a phenomenon in males
- SABV directives lack mechanisms to hold recipients accountable

What’s needed?

- Cultural shift in what *impactful, high-profile, rigorous* science looks like
- Hold researchers accountable by
  - Including SABV compliance in annual progress reports
  - Using compliance as contingency for grant renewals
- Scientists hold each other accountable through manuscript peer review
- Journal editors—who “have the greatest power to shape the culture of scientific research practices”—hold authors to standards



nature neuroscience

Shansky, R.M., Murphy, A.Z. 2021. https://doi.org/10.1038/s41593-021-00806-8

ORWH's e-learning educates biomedical community on sex and gender

- **Bench to Bedside: Integrating Sex & Gender to Improve Human Health**

  Immunology | CVD | Pulmonary Disease | Neurology | Endocrinology | Mental Health

  - 900 users (Jan.-Feb. 2021); 784 have begun a module to date

- **Sex as a Biological Variable Primer**

  - With support from NIH National Institute of General Medical Sciences and NIH Office of the Director
  - 826 users (Jan.-Feb. 2021)

- **Introduction to the Scientific Basis of Sex- and Gender-Related Differences** | Including facilitator's guide

Total of 2,323 visitors in Jan./Feb. 2021 | 1171 dashboard registrants to date

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

bit.ly/ORWHeLearning

FDA U.S. FOOD & DRUG ADMINISTRATION
OFFICE OF WOMEN'S HEALTH

New in COVID-19 and Women's Health

COVID

New study finds Black women dying at much higher rates than White men, Asian men

Demonstrates power of disaggregating data & influence of sex/gender, race, ethnicity

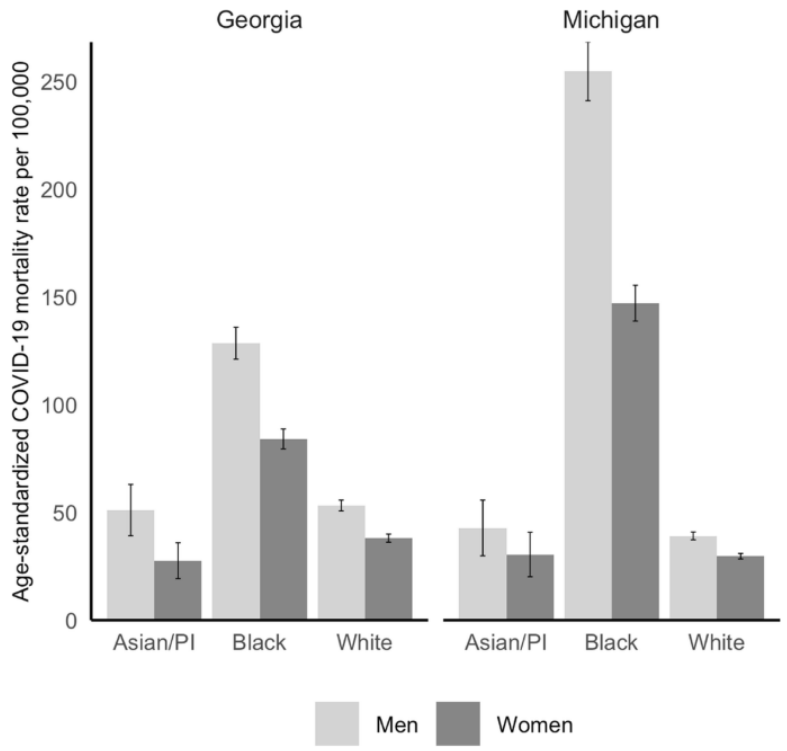
Black women have COVID-19 mortality rates **almost 4 times higher** than that of White men

- **3 times higher than Asian men**
- Higher than Asian and White women

Disparities in mortality **replicate existing racial and gender health inequities**.

- E.g. Black men in GA have highest rates of CVD; Black women and White men have similar rates; White women, the lowest

Understanding the extremely high death rates of Blacks (M & W) **requires consideration of how social factors interact** with gender and race to shape disparities



While men have higher COVID-19 death rates than women, this sex disparity does not hold across racial groups. In reality, health risks are structured in complex ways that reflect systemic and broader societal inequities.

Rushovich, T., et al. *J GEN INTERN MED.* 2021. doi.org/10.1007/s11606-021-06699-4

LONG COVID

Two studies show prevalence, severity, sex effects

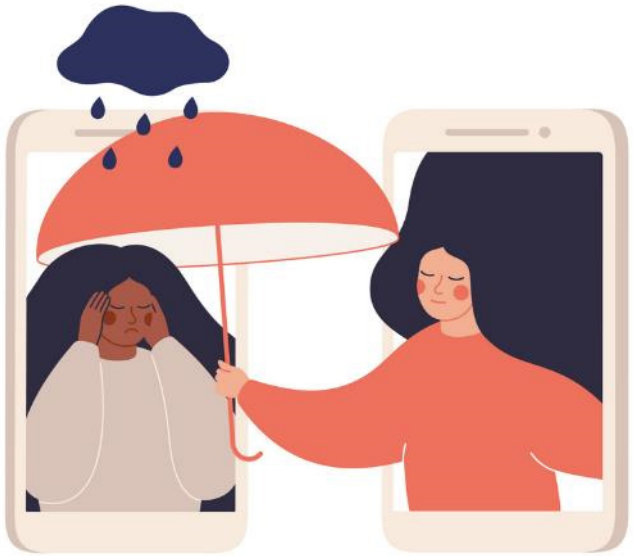
Ambidirectional cohort study* of patients at Wuhan hospital 1/7/20- 5/29/20

- Most common comorbidities: hypertension (29%), diabetes (12%), CVD (7%)
- Men were two-thirds of the most seriously ill patients (scale 5–6)
- Of the over 75% who reported symptom/s 6 months after onset, **most were women**
- Most common "Long" symptoms:
  - Fatigue or muscle weakness (63%)
  - Sleep difficulties (26%)
  - **Anxiety or depression (23%) – more common in women**
- Most seriously ill patients (scale 5–6) as compared to less seriously ill (scale 3)
  - Showed Odds Ratio (OR) of 4·60 for diffusion impairment
  - **OR 1·77 for anxiety or depression**
  - OR 2·69 for fatigue or muscle weakness
- Women patients in comparison to men
  - OR 2·22 for diffusion impairment
  - **OR 1·80 for anxiety or depression**
  - OR 1·33 for fatigue or muscle weakness

*48% of participants were women | Huang, C., et al. Lancet. 2021. DOI: 10.1016/S0140-6736(20)32656-8

LONG COVID

Lancet article highlights sex/gender-related psych effects



"[B]eing a woman and severity of illness were risk factors for **persistent psychological symptoms**. Female SARS survivors had **higher stress levels and higher levels of depression and anxiety**. … The underlying mechanism of the psychiatric consequences of COVID-19 is likely to be multifactorial and might include the direct effects of viral infection, the immunological response, corticosteroid therapy, ICU stay, social isolation, and stigma."

Huang, C., et al. Lancet. 2021. DOI: 10.1016/S0140-6736(20)32656-8

CAREERS

Pandemic disproportionately affects women, parents

Comparison of Pre-Pandemic and Pandemic

Work Hours | Faculty with small children (0–5 years) reported significantly fewer work hours compared to all other faculty

Parents With	**Children ages 0-5-years-old**	**33.7 hours**
	Children 6-11; 12-17; none	48.3; 49.5; 49.2*

Publishing | Women's first/corresponding author's and coauthor's article submissions decreased significantly

Other Productivity

- Faculty with small children completed significantly fewer peer review assignments, attended fewer funding panel meetings, submitted fewer first authors' articles
- Those with older children or no children reported significant increases or stable productivity

JOURNAL OF Women's Health

*Standard deviation 14.9; 13.9 for all others | **Self-reported

Krukowski, RA, et al. Journal of Women's Health. 2021. doi.org/10.1089/jwh.2020.8710

CAREERS

NASEM, NIH studies find COVID impact on scientists

The National Academies of SCIENCES • ENGINEERING • MEDICINE

"Impacts of COVID-19 on the Careers of Women in Academic Science, Engineering, and Medicine"

NIH-supported study documents how pandemic disrupted careers of women in academic STEMM (from March to Nov. 2020)

Found that pandemic negatively affected the well-being of women in academic STEMM fields in these areas:

- Productivity
- Work-life boundary control
- Networking and community building
- Mental well-being

NIH National Institutes of Health
Turning Discovery Into Health

NIH surveys extramural researchers

61% of lab-based researchers (55% overall) said pandemic will negatively affect career trajectory

- Concern greatest among Asian respondents, postdoc fellow/resident
- Among caretakers, concerns greatest among those with children 0-5 years old

42% said mental/physical health negatively affected productivity

- Highest among women, self-identified "other", early career investigators

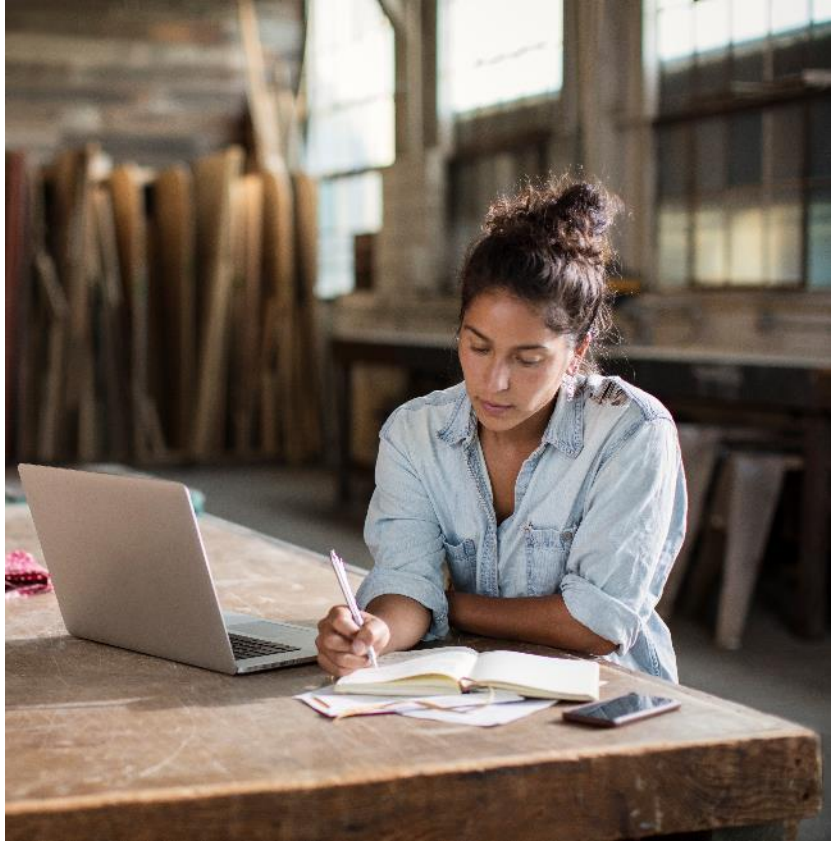
78% reported lower productivity

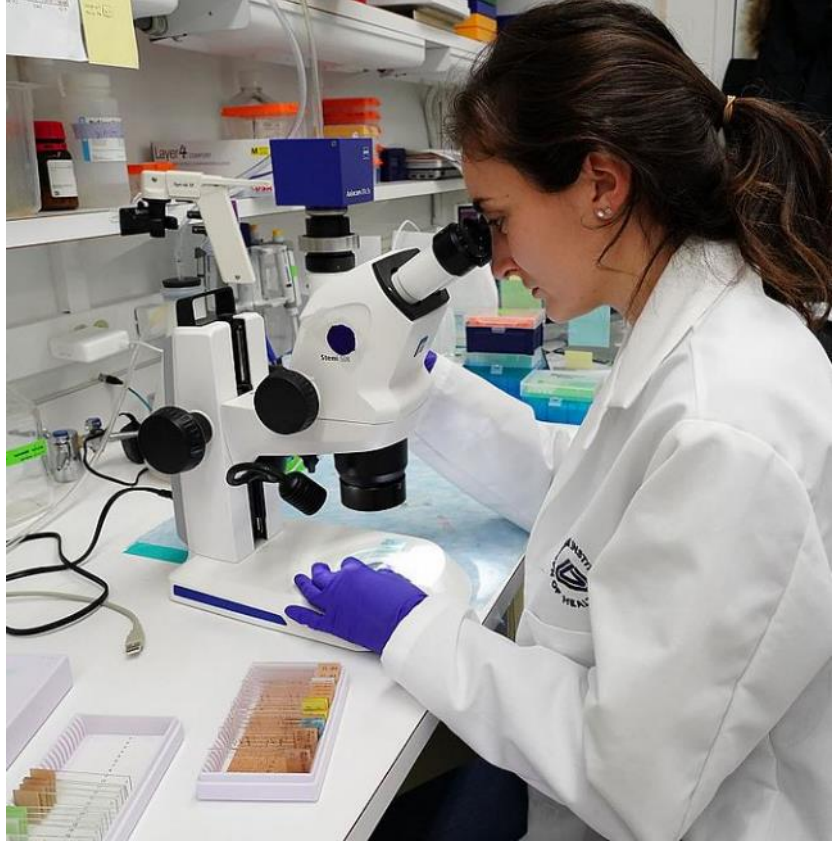
Extramural administrators

83% cited moderate-major impact on research productivity

Most implemented monitoring measures, but 1 in 5 provided or expanded childcare facilities

https://nexus.od.nih.gov/all/2021/03/25/the-impact-of-the-covid-19-pandemic-on-the-extramural-scientific-workforce-outcomes-from-an-nih-led-survey/





NIH addresses COVID-19 disruptions with funded and unfunded extensions

Requesting Extensions for Early Career Scientists Whose Career Trajectories Have Been Significantly Impacted by COVID-19 | NOT-OD-21-052

- **No-Cost Extensions** | For most NIH awards, recipients may extend final budget period of the previously approved project period one time, without NIH prior approval
- **Funded Extensions** | May request funded extension for F and K awards -- considered by each IC on case-by-case basis

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-21-052.html

CAREERS

Other initiatives address barriers to entry and advancement

NIH **Challenge Prize** to recognize, disseminate transformative institutional approaches herox.com/NIHGenderDiversityPrize

- Application deadline: April 16, 2021; awards no later than Sept. 2021

Advancing Gender Inclusive Excellence (AGIE) Coordinating Center NOITP grants.nih.gov/grants/guide/notice-files/NOT-OD-21-051.hml

- Collaboration between ORWH and National Institute of Diabetes and Digestive and Kidney Diseases
- Provide organizational framework for management, direction, and coordination of data from activities aimed at removing barriers for women to achieve leadership roles in science

BIRCWH Reissuance

NIH Common Fund's **Faculty Institutional Recruitment for Sustainable Transformation** (FIRST) program commonfund.nih.gov/first

- To help institutions build self-reinforcing community of scientists, through recruitment of early-career faculty with commitment to inclusive excellences

CHILDCARE COSTS

Childcare costs for Ruth L. Kirschstein National Research Service Award Individual Fellows NOT-OD-21-074

DIVERSITY

NIH-supported scientific conferences are required to include diversity plan to achieve appropriate representation NOT-OD-21-055

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-21-074.html

NIH and ORWH Update

Maki

Woolley

Clark

Dec.'s ORWH symposium caps 30th anniversary

Keynote speakers

- Pauline M. Maki, Ph.D., explored women's mental health across the life course
- Research!America president Mary Woolley, M.A., reported on polling showing renewed and heightened belief in science
- *Lancet* Executive Editor Jocalyn Clark, Ph.D., offered an editor's perspective on sex differences research | SCORE Meeting keynote speaker

Symposium Attendance

- 264 attendees with another 290 videocast views
- 500 Twitter engagements produced 6.9M impressions
- More than 1000 registrations across all three events, inc. BIRCWH and SCORE meetings

Visit the Virtual Environment

- https://www.labroots.com/ms/virtual-event/orwh-s-30th-anniversary-virtual-meeting-series-advancing-health-women-scienceSymposium

New Administration Update

President Biden and Vice President Harris visit NIH

One of the first federal agencies visited

New health leadership brings science and diversity

White House

President's chief medical advisor – Dr. Anthony Fauci
President's science adviser; nominee, Office of Science and Technology Policy director – Dr. Eric Lander
OSTP – Dr. Tara Schwetz and Dr. Carrie Wolinetz
COVID-19 Testing Coordinator – Carole Johnson
Vaccine Chief – Dr. David Kessler
COVID-19 Equity Task Force Chair – Dr. Marcella Nunez-Smith
COVID-19 Response Coordinator – Jeff Zients

HHS

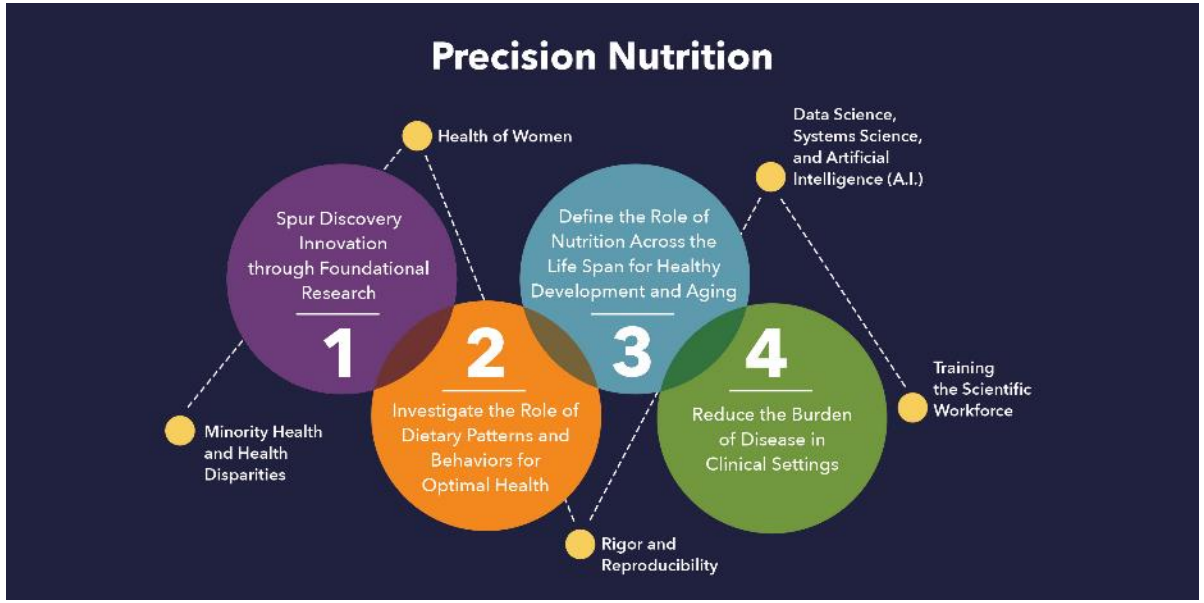
Secretary – Xavier Becerra
NIH Director – Dr. Francis S. Collins
CDC director – Dr. Rochelle P. Walensky
ASH – Dr. Rachel Levine
Surgeon General – Dr. Vivek Murthy

"You're the best America has to offer, NIH."

Pres. Biden, Feb. 11, 2021

NIH National Institutes of Health
Turning Discovery Into Health

New NIH office, strategic plan to boost nutrition research



Dr. Collins announces NIH-wide Strategic Plan

- First ever
- New ONR to coordinate implementation
- Organized around unifying vision of precision nutrition research
- dpcpsi.nih.gov/onr/strategic-plan

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

Director

National Institute of Arthritis and Musculoskeletal and Skin Diseases

ORWH is participating in NIAMS's Accelerating Medicines Partnership in Autoimmune and Immune-Mediated Diseases (AMP AIM)

Joni L. Rutter, Ph.D.

Acting Director

National Center for Advancing Translational Sciences

Replacing Christopher P. Austin, M.D., effective April 15, 2021

AMP AIM: Disease Teams for Rheumatoid Arthritis, Lupus, Psoriatic Spectrum Diseases and Sjögren's Syndrome (RFA-AR-21-015)
AMP AIM: Technology and Analytic Cores and Research Management Unit (UC2) (RFA-AR-21-016)

ORWH leads on COVID-19 sex and gender research

Working to **expand sex disaggregation** of research data and design of studies that **incorporate sex and gender**; communicate impact of **sex and gender influences**; and highlight and address **impact on women in STEM**.

Principles and programs provide direction and information

- NIH Wide Strategic Plan for COVID-19 Research
- Guiding Principles: Sex and gender influences in COVID-19 and the health of women orwh.od.nih.gov/sites/orwh/files/docs/ORWHGuidingPrinciple.pdf
- Women, Science, and the Impact of COVID-19 website orwh.od.nih.gov/sex-gender/covid-19
- COVID-19 and Maternal Health webpage orwh.od.nih.gov/womens-health-research/maternal-morbidity-and-mortality/covid-19-and-maternal-health
- Diverse Voices: COVID-19, Intersectionality, and the Health of Women – 6/24/21: "Intersectionality in COVID-19: Application and Analysis" orwh.od.nih.gov/about/newsroom/events/intersectionality-covid-19-application-and-analysis

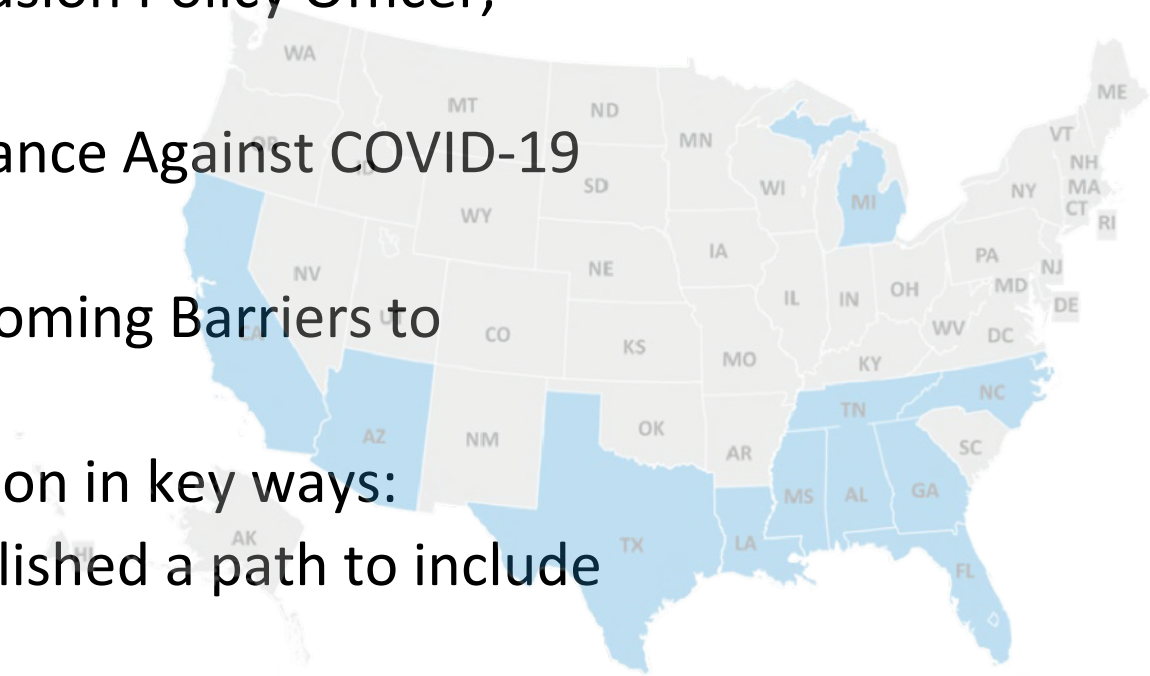
FOAs support only NIH sex- & gender-related research on COVID-19

- Expanded FOAs to add COVID-19 to scope of Sex and Gender Admin Supps, U3 admin supps, and Sex and Gender R01

INCLUSION

Improving representation of women and underrepresented minorities in clinical trials and research

- Speaking later – Dawn Corbett, NIH Inclusion Policy Officer, Office of Extramural Research
- CEAL: NIH Community Engagement Alliance Against COVID-19 Disparities
- Participation in March 29 NASEM Overcoming Barriers to Diversifying Clinical Trials workshop
- 21st Century Cures Act expanded inclusion in key ways:
  - to individuals of all ages – and established a path to include pregnant and lactating women
  - Requires NIH-defined applicable phase III clinical trials to report results disaggregated by sex/gender, race, and ethnicity into ClinicalTrials.gov



https://www.congress.gov/114/plaws/publ255/PLAW-114publ255.pdf

SCIENTIFIC COLLABORATIONS

SCORE

Sex Differences in Major Depression: Impact of Prenatal Stress-Immune and Autonomic Dysregulation | Jill Goldstein (1 U54 MH118919-01A1)

- "Identify stress-immune pathway abnormalities, beginning in fetal development, that have shared consequences for sex differences in brain circuitry regulating mood and lifelong recurrent MDD and dysregulation of hormone and immune responses to stress, and autonomic and neurovascular dysfunction in early midlife"

Sex Differences in Disorders of the Brain and Heart – A Global Crisis of Multimorbidity and Novel Opportunity JAMA Psychiatry, 2021

- Sex/gender differences in the co-occurrence major depressive disorder, CVD, Alzheimer's disease
- These interconnected disorders of brain and heart are critical preexisting conditions into which the COVID-19 infectious crisis has interacted
- Proposes adoption by investigators and funders of life span approach to tackling multimorbidity of brain and heart disorders that is targeted toward sex/gender differences from prenatal development through aging and illness causes before disease manifestation

JAMA Psychiatry

Goldstein et al. JAMA Psychiatry. 2021. doi:10.1001/jamapsychiatry.2020.1944

https://reporter.nih.gov/search/X7xBekAEd0mBaXbbpUY2TQ/project-details/9853480#similar-Projects

SCORE

"Sex and gender: modifiers of health, disease, and medicine"

	Sex differences		Gender differences, women compared with men
	Male sex	Female sex	
Heart disease	Younger age; more obstructive coronary artery disease; more heart failure with reduced ejection fraction	Older age; more coronary microvascular dysfunction; more heart failure with preserved ejection fraction	Underdiagnosed inflammatory airway disease; less evidence-based treatment; higher myocardial infarction mortality; fewer heart transplantations, although more frequent donors
Cancer	Higher prevalence and mortality; genetic cell autonomous predisposition; stimulatory role of testosterone after puberty in hepatocellular carcinoma	Lower prevalence and mortality for some cancers; higher expression of X-encoded tumour suppressors; protective effect of oestrogen after puberty in hepatocellular carcinoma	Not identified
COPD and asthma	COPD: higher prevalence; asthma: higher prevalence before puberty	COPD: early onset with less tobacco exposure; majority of non-smoking COPD; high exacerbation rates; immune dysregulation; decline in lung function at menopause; asthma: higher prevalence in middle-age; premenstrual asthma; improves after menopause	COPD: smoking advertisements targeting women in the 1960s; increased smoking rates; often misdiagnosed; suffer from comorbid conditions, anxiety, and depression
Ischaemic stroke	Younger age of onset	Older age of onset; sex-specific risk factors: hypertensive disorders of pregnancy, gestational diabetes, contraception; aspirin provides greater benefit for women in primary prevention	Often undertreated; poorer outcome because of old age; higher disability, poststroke depression, and social isolation
Alzheimer's disease	Lower prevalence; more likely diagnosed with mild cognitive impairment	Higher prevalence; apolipoprotein E epsilon 4 provides four times higher risk; risk increase with pregnancy, hypertensive disorders of pregnancy, early menopause, and late initiation of menopausal hormone therapy; clinical course is faster	Better performance on verbal memory tests; often delayed or missed diagnosis; greater burden of disease caregiving
Type 2 diabetes	More frequent impaired fasting glycaemia; testosterone deficiency predisposes and testosterone therapy protects	More frequent impaired glucose tolerance; greater clustering of cardiovascular risk factors; menopause predisposes and oestrogen therapy protects	Undertreatment of type 2 diabetes in women
Influenza	Predominant in young boys	Predominant in adults; morbidity and mortality are higher, especially in pregnant women; higher antibody titres following vaccination	Different roles and occupations lead to exposure to different strains of influenza A virus; higher vaccine hesitancy and lower vaccine receipt
Chronic kidney disease	More rapid rate of progression; testosterone might be deleterious	Higher prevalence; risk increases with hypertensive disorders of pregnancy; oestrogens might be protective	Receive fewer kidney transplants; receive fewer arteriovenous fistulas; potential dialysis overdose or administration of larger amounts of erythropoietin-stimulating agents
Chronic liver diseases	Higher risk of primary sclerosing cholangitis, chronic viral hepatitis, cirrhosis, and hepatocellular carcinoma; higher prevalence of alcoholic liver disease; higher risk of NAFLD, fibrosis, and mortality; testosterone is protective against NAFLD; NASH resolution requires moderate bodyweight reduction	Higher risk of primary biliary cholangitis and autoimmune hepatitis; higher susceptibility to alcoholic liver disease; protected from NAFLD and fibrosis before menopause but not after menopause; oestrogens are protective against NAFLD, whereas testosterone is detrimental; greater weight loss is required for NASH resolution	Greater weight loss is required for NASH resolution
Depression	Less frequent but more lethal suicide attempts; irritability, aggression, violence, substance abuse, risky behaviour, and somatic complaints	Higher prevalence; hyperphagia, weight gain, hypersomnia, anxiety; role for gonadal hormones in depression	More likely to be diagnosed

COPD=chronic obstructive pulmonary disease. NAFLD=non-alcoholic fatty liver disease. NASH=non-alcoholic steatohepatitis.

Table: **Sex and gender differences in leading causes of mortality**

THE LANCET

Mauvais-Jarvis, et al. Lancet. 2020. doi.org/10.1016/S0140-6736(20)31561-0

NIMH-ORWH

LinkPositively: A Technology-Delivered Peer Navigation and Social Networking Intervention to Improve HIV Care Across the Continuum for Black Women Affected by Interpersonal Violence Grant Number: R34MH122014-01

Core components

- Virtual peer navigation – phone and text check-ins; weekly one-on-one video sessions to build coping skills and navigate care
- Social networking platform for peer support
- Educational and self-care database with healthy living/self-care tips
- GPS-enabled resource locator for care & ancillary support service agencies
- ART self-monitoring and reminder system

Research Is Changing the Face of HIV for Women and Girls
OAR Blog Article

National Institute of Mental Health

oar.nih.gov/about/directors-corner/research-changing-face-hiv-women-and-girls

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

IMPROVE

Implementing a Maternal health and Pregnancy Outcomes Vision for Everyone

NIH-wide program funding interdisciplinary research in foundational biology, behavioral, & sociocultural science

- Gain evidence on causes of maternal mortality & morbidity
- Improve health for women before, during, & after delivery
- Reduce preventable causes of maternal deaths

Promote health equity in the U.S.

- Evaluate structural & health care system issues in populations with high rates of maternal deaths & complications
- Develop community partnerships to assess vulnerabilities & implement interventions to improve outcomes

36 projects ($7.5M) in Sept. 2020

- 17 ICOs participating; 12 funding projects

nih.gov/research-training/medical-research-initiatives/improve-initiative

IMPROVE

Mental Health

REMOTE SUPERVISION FOR IMPLEMENTING COLLABORATIVE CARE FOR PERINATAL DEPRESSION

Photo by manu mangalassery from Pexels

CVD

PRENATAL BLOOD PRESSURE PATTERNS TO PREDICT PREGNANCY-RELATED HYPERTENSION & LATER LIFE CVD RISK

Photo by Thirdman from Pexels

Immunity

ROLE OF HOST-MICROBIAL INTERACTIONS IN ALTERING PRETERM BIRTH RISK AMONG BLACK WOMEN

Photo by Ketut Subiyanto from Pexels

IMPROVE | https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-104.htm
https://projectreporter.nih.gov/reporter_searchresults.cfm?redir=sh&sl=14E8C00B4F89C4D27598B8961CAA4A01A2FFCEB861BF&icde=51901425&hsid=90254808&shQID=0&go2=l

newIMPROVE

Small Business Initiatives for Innovative Diagnostic Technology for Improving Outcomes for Maternal Health NOT-EB-21-001

- Development of technologies to predict an increased risk for maternal morbidity and mortality (MMM)
- Identification, phenotyping, subtyping, and stratification of patients at greater risk of MMM
- Multi-level interventions to address racial disparities
- Clinical decision-making that considers social and cultural biases
- Wearable, point-of-care, portable, or clinical devices
- Issued by National Institute of Biomedical Imaging and Bioengineering (NIBIB) with:
  - NHLBI, NHGRI, NIAID, NICHD, NIMH, NINDS, NIMHD, NCATS, NIAMS, OD, ORWH

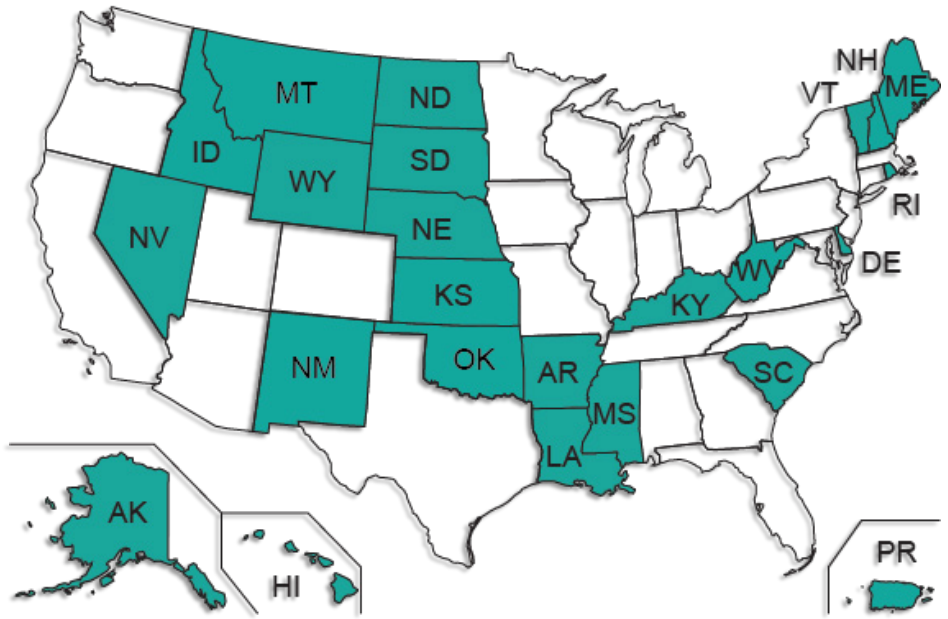
Admin. Supps. and Urgent Competitive Revisions for NIH Grants to Add or Expand Research Focused on Maternal Health, Structural Racism and Discrimination, and COVID-19 NOT-OD-21-071

- Pandemic may amplify psychosocial factors & social determinants of health that contribute to MMM
- Structural racism and discrimination (SRD) could have a profound negative impact
- Understand effects of infection and pandemic on maternal mental health, well-being, functioning and quality of life
- In context of the pandemic:
  - ID psychosocial & behavioral health risk factors that affect mental health
  - Address impact of SRD on maternal health
- Understand how knowledge, attitudes, etc. affect testing & vaccination take-up
- Issued by NIH Office of the Director

IDeA

ORWH & NIGMS expand WH research in IDeA states

- ***In partnership with ORWH, popular program expanded scope of research to include WH***
- ***Expands WHR in states with least amount of research funding and of populations disproportionately affected***



NOT-GM-21-018

- Research must address at least one goal of the Trans-NIH Strategic Plan for Women's Health Research
- Maternal morbidity & mortality (MMM)
- Links between MMM and subsequent risks
- FY 2020: $4.8 million/19 selected applications
- Current year: 15 participating ICOs
  - Applications due April 19, 2021
  - Funding in FY 2021

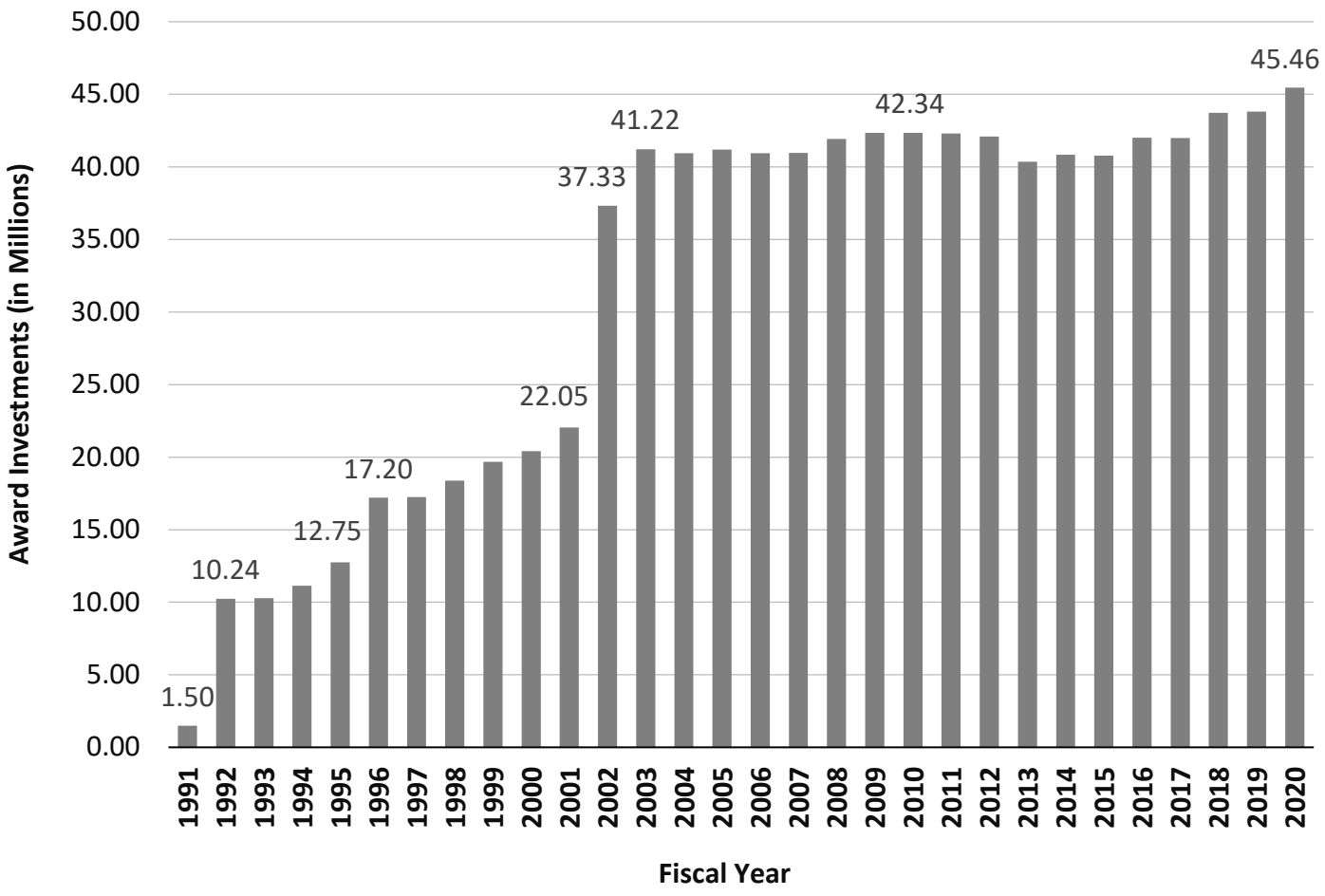
NIH National Institute of General Medical Sciences

https://www.nigms.nih.gov/News/results/Pages/20201009.aspx

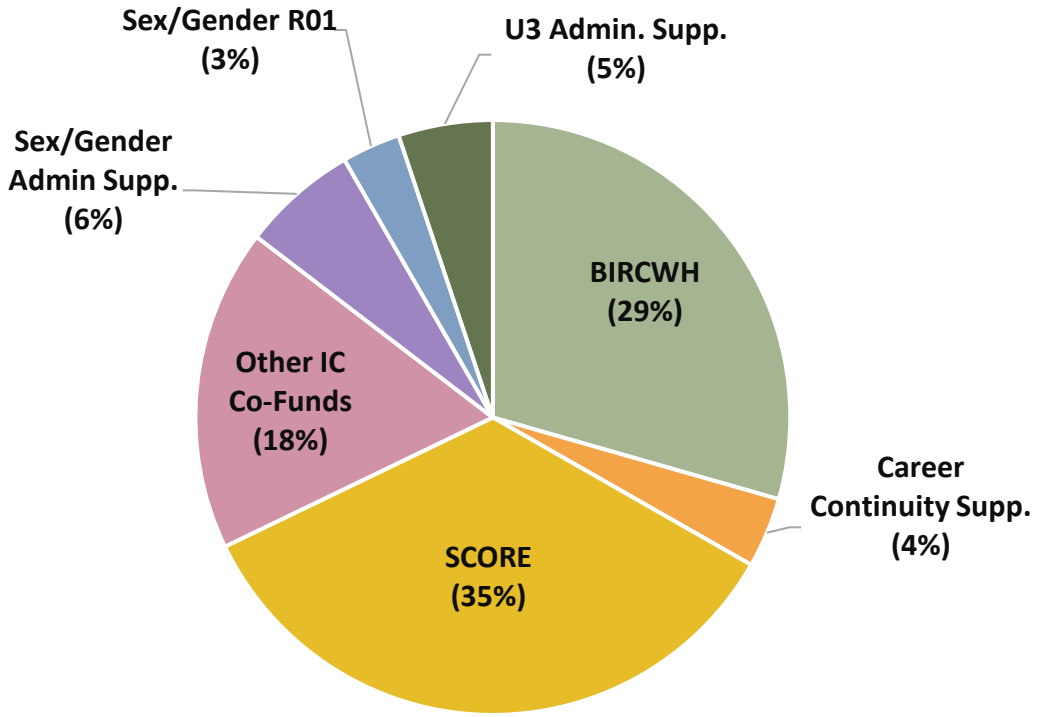
NIH National Institutes of Health Office of Research on Women's Health

FY20 RESEARCH PROGRAMS FUNDING

ORWH Budget History & FY20 Extramural Award Profile



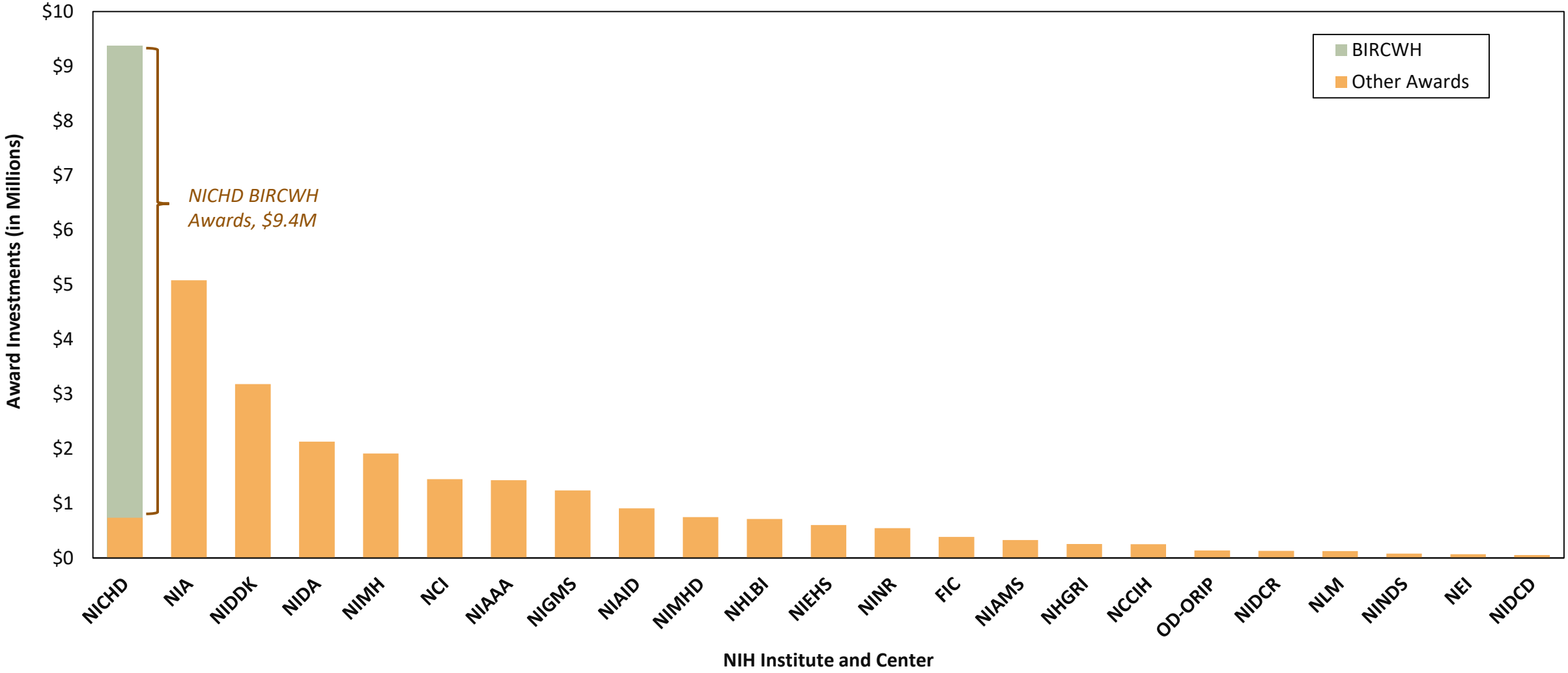
Note: Award investments do not adjust for inflation.



ORWH FY2020 Extramural Awards by Program (as % of Extramural Budget)

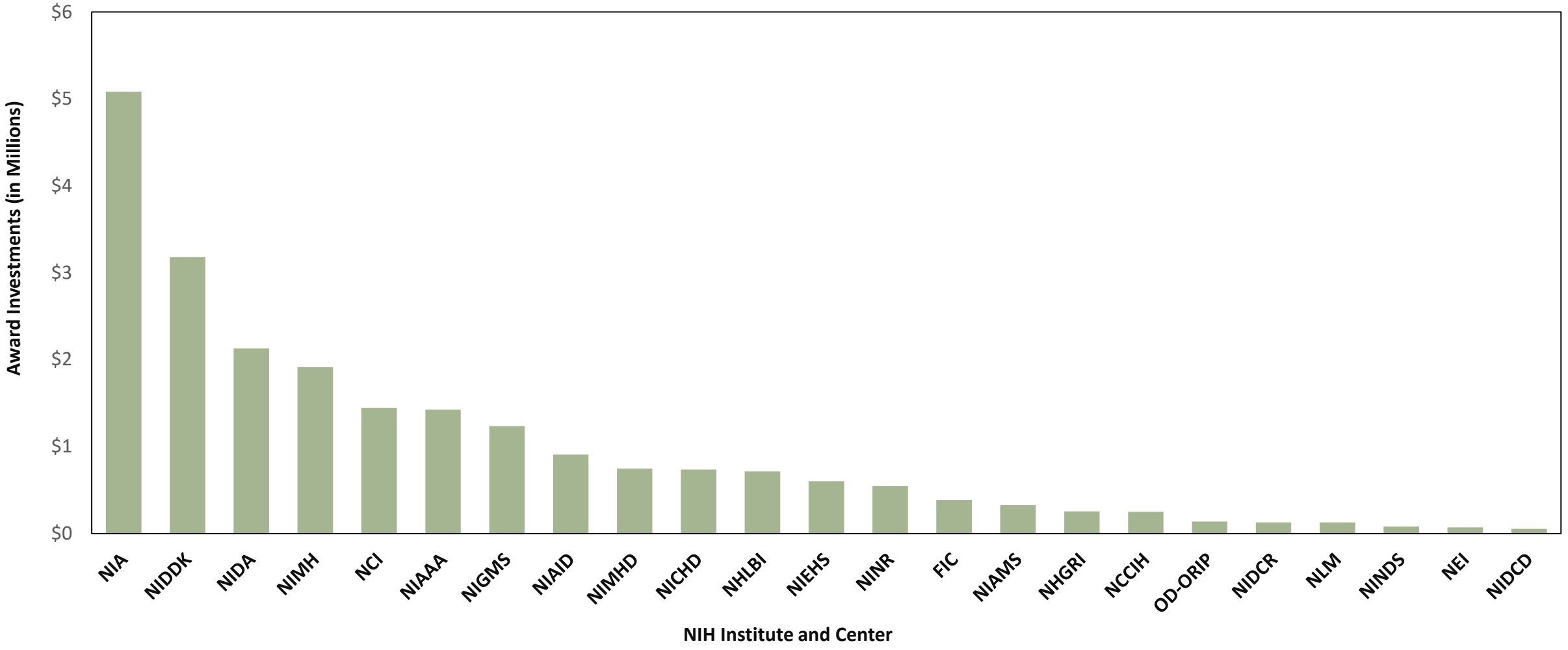
Source: NIH IMPAC II FY2020 frozen data.
Note: ORWH total investments = $31,867,666. Funding portfolio excludes Contract R&D and IAA awards.

ORWH FY2020 Extramural Award Investments by IC (including BIRCWH funding)



Source: NIH IMPAC II FY2020 frozen data.
Note: ORWH total investments = $$31,867,666. Funding portfolio excludes Contract R&D and IAA awards.

ORWH FY2020 Extramural Award Investments by IC (excluding BIRCWH funding)



Source: NIH IMPAC II FY2020 frozen data.
Note: ORWH total investments = $22,488,025. Funding portfolio excludes BIRCWH program investments, Contract R&D, and IAA awards.

ORWH Extramural Award Investments by Research Program in FY2020

Program	ORWH Investments	# of Co-Funding ICs	List of Co-Funding ICs
BIRCWH*	$9,379,641	1	NICHD
Career Continuity Supp.	$1,217,235	16	FIC; NCI; NHLBI; NIA; NIAID; NIAMS; NIDA; NIDCD; NIDCR; NIDDK; NIEHS; NIGMS; NIMH; NINDS; NINR; NLM
SCORE	$11,025,174	5	NIA; NIAAA; NIDA; NIDDK; NIMH
Sex/Gender R01	$1,014,454	2	NIAID; NIEHS
Sex/Gender Admin Supp.	$2,006,510	10	NCI; NHLBI; NIA; NIAID; NIAMS; NICHD; NIDCR; NIDDK; NIMH; OD-ORIP
U3 Admin Supp.	$1,635,185	5	NCI; NHLBI; NIDA; NIMHD; NINR
Other IC Co-Funds	$5,589,467	16	FIC; NCCIH; NCI; NEI; NHGRI; NHLBI; NIAID; NIAMS; NICHD; NIDA; NIDDK; NIGMS; NIMH; NIMHD; NINR; NLM

* In FY2020, NCI, NIAAA, NIAID, and NIDA also supported the BIRCWH program with additional funds.

Fifth Annual Vivian W. Pinn Symposium

Integrating Sex and Gender Into Biomedical Research as a Path for Better Science and Innovation

Honoring the first full-time director of ORWH, Vivian W. Pinn Symposium is held annually during National Women's Health Week

May 11-12, 2021 | Virtual Meeting

Illustrate the scientific, societal, and economic opportunities of integrating sex and gender into biomedical research and the power of synergistically working together

- Create bridges and capacity across the scientific enterprise to build a broad-based network of government, non-profit, academic, and business organizations
- Develop strategies to integrate sex and gender considerations into research enterprise
- Apply multidimensional perspective to women's health to advance the integration of sex and gender considerations via trans-disciplinary approaches and partnerships

Vivian W. Pinn, M.D.

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

For more information:
www.nih.gov/women

FNIH
Foundation for the National Institutes of Health

House and Senate “significant items” request a consensus conference

ORWH will hold a **Consensus Conference** on **October 20-21, 2021,** as part of the ACRWH Meeting.

- Must include representatives from **ORWH**, **NICHD**, **NCI**, **NHLBI**, **NIDDK**, & other relevant ICOs.

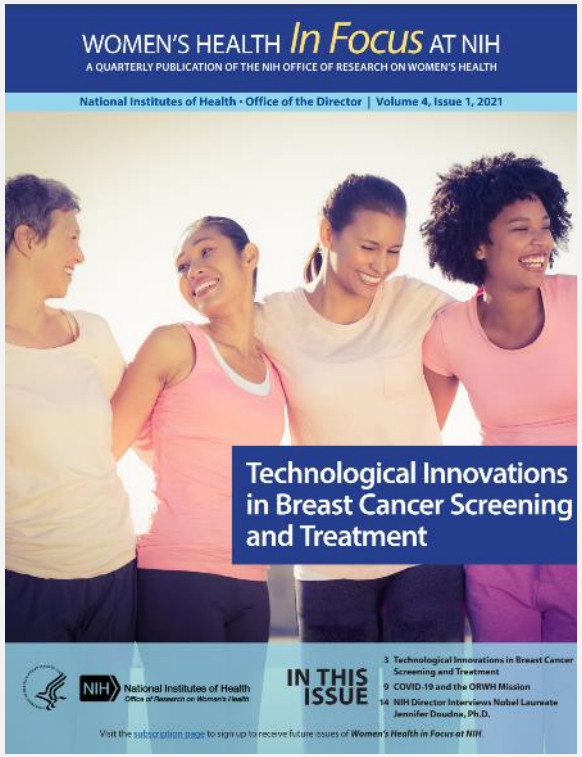
- **Evaluate research** and **identify priorities** to advance the study of women’s health, particularly:
    1. Rising rates of maternal morbidity and mortality;
    2. Rising rates of chronic debilitating conditions in women;
    3. Stagnant survival rates among cervical cancer patients.

House: https://www.congress.gov/116/crpt/hrpt450/CRPT-116hrpt450.pdf (page 149)
Senate: https://www.appropriations.senate.gov/imo/media/doc/LHHSRept.pdf (page 123)

CONNECT WITH ORWH

30TH ANNIVERSARY ISSUES

quarterly newsletter
bit.ly/ORWHInFocus



Volume 4, Issue 1
2021

The Pulse

monthly email
bit.ly/ORWHpulse

@JanineClaytonMD
@NIH_ORWH
NIHORWH
NIH.gov/women

WOMEN'S HEALTH *In Focus* AT NIH
A QUARTERLY PUBLICATION OF THE NIH OFFICE OF RESEARCH ON WOMEN'S HEALTH