2024 – 2028 NIH-Wide Strategic Plan on Research on the Health of Women: Update

58th Meeting of the NIH Advisory Committee on Research on Women’s Health

Samia Noursi, Ph.D.
Alyson McGregor, M.D., M.A., FACEP
Kelly Chandler, Ph.D.

April 12, 2023
2024—2028 NIH-Wide Strategic Plan on Research on the Health of Women

ORWH

- Collects and Analyzes Data

ACRWH

- Establishes and Participates

ICO Reps, & Federal Partners

- ORWH Recruits Representatives

Strategic Plan Working Group

- ORWH Shares with Working Group

Thinktank Groups

- ORWH Recruits and Assigns Topic Areas

Strategic Plan Goals & Objectives

- ORWH Shares with Working Group

Strategic Metrics

- ORWH Finalizes and Publishes January 2024

ORWH Drafts for July 2024 Publication

I&E Guide

Acronyms and Abbreviations

- ACRWH: Advisory Committee on Research on Women’s Health
- CCRWH: Coordinating Committee on Research on Women’s Health
- ICOs: Institutes, Centers, and Offices of NIH
- I&E: Implementation and Evaluation
- ORWH: Office of Research on Women’s Health
- P&E: Planning & Evaluation Officers Committee
ACRWH Working Group on the 2024-2028 NIH-Wide Strategic Plan on Research on Women’s Health

Co-chairs: Samia Noursi, PhD, Associate Director for Science Policy, Planning, and Analysis, Office of Research on Women's Health (ORWH), NIH
Alyson McGregor, MD, Professor of Emergency Medicine, University of South Carolina Greenville

Charge: The Working Group will address the current state of science on the health of women, research gaps, and identify goals and objectives that ORWH needs to prioritize from 2024 – 2028.

Outcome: ACRWH approved all Content Areas on October 18th, 2022.
Thinktank Content Areas

1. Consider how the intersection of social and biological factors affect the health of women

2. Support the development of data science, innovative research methods and measurements, and promote cutting-edge technologies for the health of women

3. Support biomedical workforce training and promote women scientists’ career development to advance the health of women

4. Advance basic science and translational research to improve the health of women

5. Encourage community engagement and promote implementation science for the health of women
2024—2028 NIH-Wide Strategic Plan on Research on the Health of Women

**Strategic Plan Working Group**
- ORWH/ACRWH Activities and Analysis
- ORWH Recruits and Assigns Topic Areas
- ORWH Shares with Working Group
- ORWH Recruits Representatives
- Working Group Approves
- RFI
- Strategic Plan Content Areas
- Strategic Goals & Objectives
- Thinktank Groups

**Strategic Metrics**
- Draft
- Draft
- Draft
- Draft
- Draft
- Draft
- Draft

**Strategic Plan Draft**
- ORWH Finalizes and Publishes January 2024
- ORWH Drafts
- ORWH Drafts
- ORWH Drafts
- ORWH Drafts
- ORWH Drafts for July 2024 Publication

**I&E Guide**
- ORWH Shares with
- Draft

**ORWH/ACRWH**
- Collects and Analyzes Data
- ACRWH Establishes and Participates

**ACRWH**
- ICO Reps, & Federal Partners

**ACRWH Advisory Committee on Research on Women’s Health**
- Coordinating Committee on Research on Women’s Health
- Institutes, Centers, and Offices of NIH
- Implementation and Evaluation
- Office of Research on Women’s Health
- Planning & Evaluation Officers Committee

**CCRWH Coordinating Committee on Research on Women’s Health**
- ICOs Institutes, Centers, and Offices of NIH

**ICOs**
- National Institutes of Health

**ORWH Office of Research on Women’s Health**
- Implementation and Evaluation
- Office of Research on Women’s Health
- Planning & Evaluation Officers Committee

**P&E Planning & Evaluation Officers Committee**
- Federal Partners
Thinktank 1: Goal and Objectives

Advance research that examines the multiple biological, behavioral, social, structural, and environmental factors that influence the health of women, and the intersections of these factors.

Objective 1: Develop and support innovative research on the health of women in social, cultural, and historical context, with particular attention to the interplay of biological, behavioral, social, structural, and environmental factors.

Objective 2: Expand research to address health disparities experienced by diverse populations of historically marginalized women, with attention to intersectionality and health equity.

Objective 3: Support research on upstream causes of health disparities and modifiable factors or points of intervention to mitigate disparities rooted in structural sexism, structural racism, and other social determinants of health.

Objective 4: Support innovative behavioral and social sciences research (BSSR) to enhance knowledge of biological, behavioral, social, environmental, and structural processes and promote equity-focused health research for women.

Objective 5: Develop and support research to investigate the multiple domains of gender (identity, roles and norms, relations, power) and their influence on health.

Objective 6: Expand research to advance the health of women across the life course, including during key social and biological transitions.
Thinktank 2: Goal and Objectives

Improve data science and data management practices with innovative research methods, measurements, and cutting-edge technologies to prevent and treat conditions affecting women.

Objective 1: Increase data-sharing and improve data management practices to align with FAIR principles and enhance the utility of new and existing data on the health of women.

Objective 2: Promote the use of advanced statistical modeling, data visualization, artificial intelligence (AI), and machine learning (ML) methods for research on the health of women.

Objective 3: Utilizing longitudinal and repeated measurement designs and analytic approaches to characterize the health of women over time and across the life course.

Objective 4: Support the development of cutting-edge computational tools and technologies to facilitate disease screening, prevention, diagnosis, and treatment of diseases that affect women.
Thinktank 3: Goal and Objectives

To promote scientific workforce training and education that advances the health of women and the science of sex and gender influences, and to foster women scientists’ career development.

Objective 1: Integrate knowledge of sex and gender influences on health and disease at all levels of training to accelerate the translation of that knowledge into practice.

Objective 2: Develop the next generation of researchers to advance science on the health of women, including through non-traditional, interdisciplinary avenues toward biomedical and health science research careers.

Objective 3: Support and develop programs to recruit, support, retain, facilitate re-entry, and advance women at all stages of their research careers, from early career to leadership positions, especially mid-career scientists.

Objective 4: Promote and support policies, mentoring, networks, collaborations, and opportunities to advance the cross-sectoral careers of women scientists, with special attention to populations underrepresented in the U.S. biomedical, clinical, behavioral, and social sciences research enterprise, and persons with disabilities.

Objective 5: Promote and disseminate interventions to reduce barriers and facilitate recruitment, retention, re-entry, and reintegration to advance the behavioral and biomedical careers of women.
Thinktank 4: Goal and Objectives

Support the basic and translational study of the biology underlying sex influences and its intersection with disease and health preservation in women across the lifecourse.

Objective 1: Advance mechanistic, basic, and translational research into the effect of sex and gender on biology, disease pathogenesis, therapeutics, and health outcomes that uniquely or differently affect women.

Objective 2: Enhance the use of cell and animal models, organoids, engineered tissue matrices, in silico, and related systems, to define the role of sex and gender in biomedicine.

Objective 3: Enhance research on the role of sex and gender on intrinsic processes (e.g., sleep, stress, pain) and in response to extrinsic factors (e.g., microbiome, nutrition, toxins) across the lifecourse.

Objective 4: Stimulate interdisciplinary, systems-based approaches spanning biomedical domains such as molecular and cellular biology, genomics, immunology, and physiology.
Thinktank 5: Goal and Objectives

Advance community engaged science across the research and practice continuum and enhance the dissemination and implementation of evidence-based solutions to improve the health of women.

Objective 1: Train and educate researchers, clinicians, and public health practitioners on community-engaged research on implementation science methods and practice.

Objective 2: Develop, promote and leverage methods and practices that include bidirectional listening and culturally responsive communication and support for community participation and engagement in research.

Objective 3: Promote engagement science (e.g., methods and processes) related to implementation, behavior, and health outcomes relevant to improving the health of women.

Objective 4: Expand implementation science focused on improving public health practices and healthcare delivery tailored to the needs of women.

Objective 5: Expand implementation science aimed at investigating and intervening on the social, policy, environmental, structural, and systemic factors that influence sex and gender disparities in the health of women.
Thank you to all participants!

<table>
<thead>
<tr>
<th>Thinktank 1</th>
<th>Thinktank 2</th>
<th>Thinktank 3</th>
<th>Thinktank 4</th>
<th>Thinktank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth Barr (ORWH)</td>
<td>Ching-yi Shieh (ORWH)</td>
<td>Xenia Tigno (ORWH)</td>
<td>Chyren Hunter (ORWH)</td>
<td>Sarah Temkin (ORWH)</td>
</tr>
<tr>
<td>Rada Dagher (NIMHD)</td>
<td>Sarah Yoon (NINR)</td>
<td>Susana Serrate-Sztein</td>
<td>Dorit Zuk (NIGMS)</td>
<td>Joan Packenham (NIEHS)</td>
</tr>
<tr>
<td>Alexandra Noel (ACRWH)</td>
<td>Garnet Anderson</td>
<td>Reshma Jagsi (ACRWH)</td>
<td>Yoel Sadovsky (ACRWH)</td>
<td>Phyllis Sharps (ACRWH)</td>
</tr>
<tr>
<td>Christopher Barnhart</td>
<td>(ACRWH)</td>
<td>Lisa Begg (ORWH)</td>
<td>Irene Aninye (ACRWH)</td>
<td>Amanda Borsky (VA)</td>
</tr>
<tr>
<td>(SGMRO)</td>
<td>Tilda Farhat (NIMHD)</td>
<td>Jessi Drew (NIAID)</td>
<td>LaVerne Brown (ODS)</td>
<td>Jean E. Howe (IHS)</td>
</tr>
<tr>
<td>Katherine Hatcher</td>
<td>Rebecca Favor (OER)</td>
<td>Ivana Grakalic (NIAAA)</td>
<td>Jessica Faupel-Badger</td>
<td>Alyson McGregor</td>
</tr>
<tr>
<td>(NIAID)</td>
<td>Jill Huppert (AHRQ)</td>
<td>(NCI)</td>
<td>(ACRWH)</td>
<td>(ACRWH)</td>
</tr>
<tr>
<td>Tamara Lewis Johnson</td>
<td>Lisa Neuhold (NEI)</td>
<td>Sonia Jakowlew (NCI)</td>
<td>Sabra Klein (ACRWH)</td>
<td>Kate Nagy (NIA)</td>
</tr>
<tr>
<td>(NIMH)</td>
<td>Noffisat Oki (NIDCR)</td>
<td>Sunila Nair (NIDA)</td>
<td>Christine Marie-Bilkan</td>
<td>Kimberly Thigpen Tart</td>
</tr>
<tr>
<td>Alexandra Noel (ACRWH)</td>
<td></td>
<td>Lillian Shum (NIDCR)</td>
<td>(NIDDK)</td>
<td>(NIEHS)</td>
</tr>
<tr>
<td>Sarika Parasuraman</td>
<td></td>
<td>Kimberly Templeton</td>
<td>Marrah Lachowicz-</td>
<td>Aubrey Villalobos (NCI)</td>
</tr>
<tr>
<td>(OBSSR)</td>
<td></td>
<td>(ACRWH)</td>
<td>Scroggins (NHLBI)</td>
<td>(VA)</td>
</tr>
<tr>
<td>Tina Pattara-Lau (IHS)</td>
<td></td>
<td></td>
<td>Kelly Singel (OEPR)</td>
<td></td>
</tr>
<tr>
<td>Judy Regensteiner</td>
<td></td>
<td></td>
<td>Candace Tingen (NICHD)</td>
<td></td>
</tr>
<tr>
<td>(ACRWH)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Szurek (NCI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Health of Women Across the Life Course

Social and Environmental Exposures

Health Care Access and Quality
Physical Exposures
Mental Health
Life Context
Economic Stability
Social and Community Context
Education Access and Quality

Preconception In Utero Birth Childhood Adolescence Adulthood (including pregnancy) Aging

Anatomy Physiology Immunology Microbiome Hormones Genomics

Biological Factors
# Next Steps

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring/Summer 2023</td>
<td>Refining Metrics (e.g., project count, FOAs/NOSIs)</td>
</tr>
<tr>
<td>January 2024</td>
<td>Strategic Plan Release</td>
</tr>
<tr>
<td>Winter/Spring 2024</td>
<td>Working Group on Implementation and Evaluation</td>
</tr>
<tr>
<td>Summer 2024</td>
<td>Implementation and Evaluation Guide Release</td>
</tr>
</tbody>
</table>
Questions?