

Background and Objectives

Sharing of scientific resources is a critical component of contemporary research

Challenging to identify available resources and to determine steps required to access these resources

Overview of the wealth of data and biological specimens available from the **Study of Women's Health Across the Nation (SWAN)**

Processes for obtaining the SWAN data and specimens



SWAN Design

Cross-sectional telephone survey and screening: 1996-97

- N= 16,000+ women aged 40-55
- Brief snapshot on large sample of mid-aged women: age of natural menopause, prevalence of surgical menopause, lifestyle, symptoms, health factors

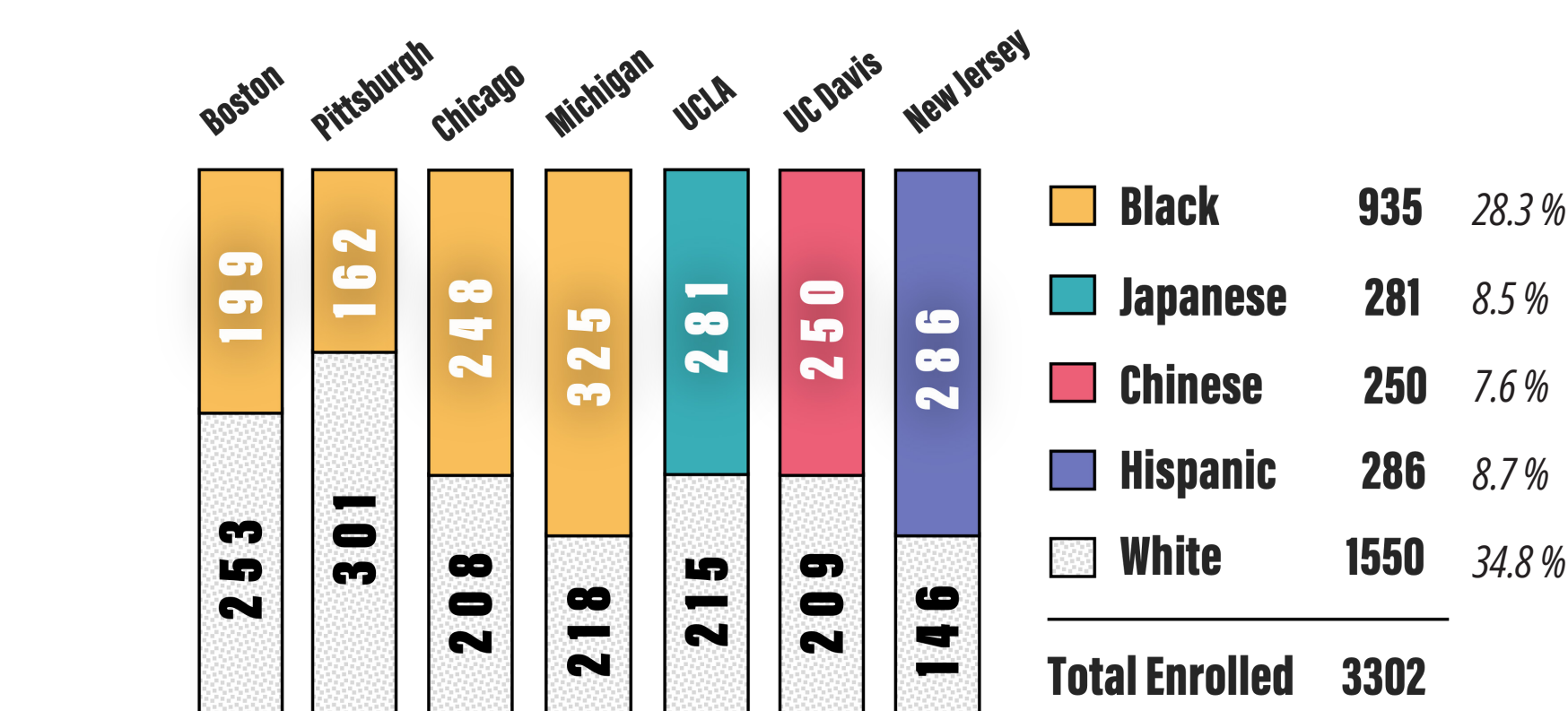
SWAN Cohort: In-Person Baseline: 1997-98

- N=3302 women
- Aged 42-52
 - Menses within past 3 months and not pregnant or breastfeeding
 - Uterus plus at least one ovary intact
 - No hormone medications

Longitudinal follow-up of SWAN Cohort: 1997-2023

Baseline and 17 follow-up visits

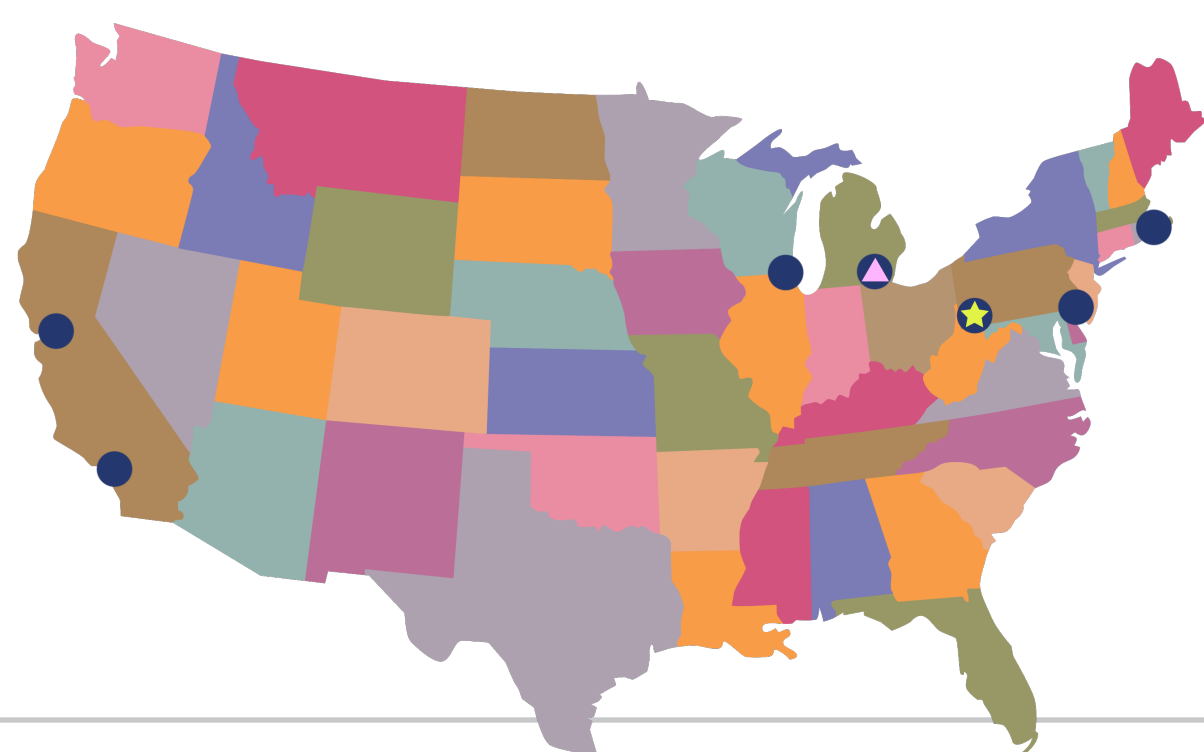
SWAN Characteristics



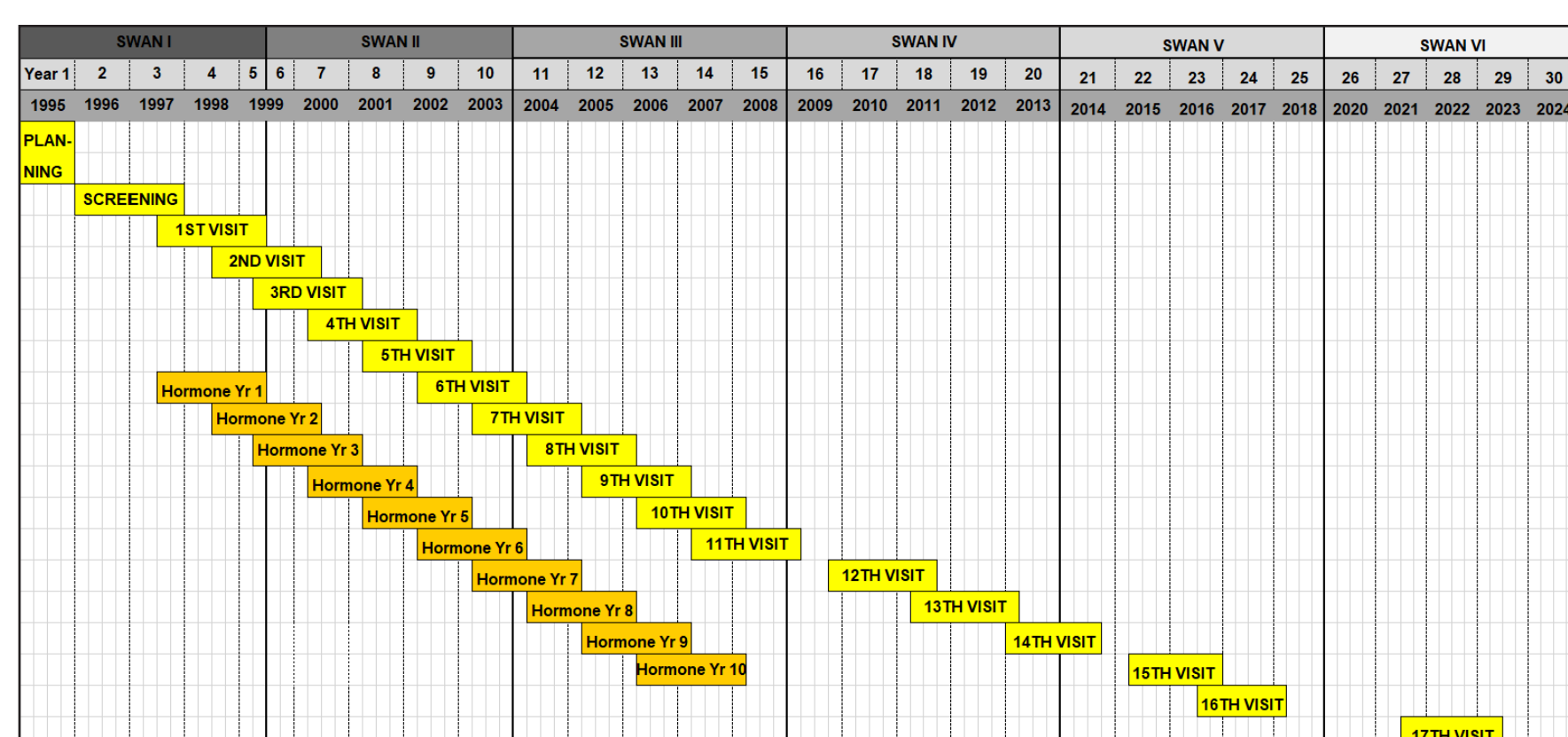
7 field sites across the United States

Central Laboratory

Coordinating Center



Timeline of SWAN Visits



Reasons to use SWAN Resources

- Covers middle to older age.
 - Longitudinal data spans ages 42-52 at baseline to 66-79 at last follow-up
- Up to 18 visits over 25 years
- Detailed information on menopause transition
- Broad range of physical and psychological measures
- Blood and urine specimens available
- > 700 publications from > 300 investigators
- SWAN is the platform for > 40 funded ancillary studies, F31 and K-awards

SWAN Data and Specimen Collection

Data Collection

- Laboratory markers of reproductive aging
- Menopausal symptoms, mental health, and sleep
- Psychosocial environment
- Lifestyle behaviors
- Cognitive function, physical function
- Bone density, body composition
- Cardiometabolic risk factors, carotid atherosclerosis
- Medications (prescription, over the counter)
- Events (self-reported and adjudicated): cardiovascular events, breast & colon cancer, fractures, mortality



Specimen Collection

- Serum, plasma, and urine collected at each clinic visit
- Daily urine hormone assessments for ≤50 days annually for up to 10 years
- Repository vials stored at NIA Aging Research Biobank



Accessing Data and Specimens

Aging Research Biobank

Steps to Request Data/Specimens

- Scientifically rigorous study proposal
- Documented IRB approval or waiver
- Funding if needed
- Data or Material Transfer Agreement
 - Biobank creates agreement for recipients of data and/or specimens for use in research projects



agingresearchbiobank.nia.nih.gov/studies/swan

Tips for Successful Applications

Non-commercial use to advance women's health research

- Formulate relevant hypotheses involving women's health, menopause, aging
- Minimal overlap with published SWAN literature and on-going studies
 - Search publication lists on NIA Biobank website or PubMed to determine if hypotheses are novel

Feasibility of proposal

- Adequacy of SWAN Resources for specific research question
 - Do the data required for key exposure and outcomes exist?
 - Can desired measures be obtained from existing specimens?
 - Is there adequate sample size and power?
- Early communication with NIA Aging Research Biobank critical to determine whether resources meet your needs
 - A collaborator from SWAN may be helpful given complexity of study www.swanstudy.org

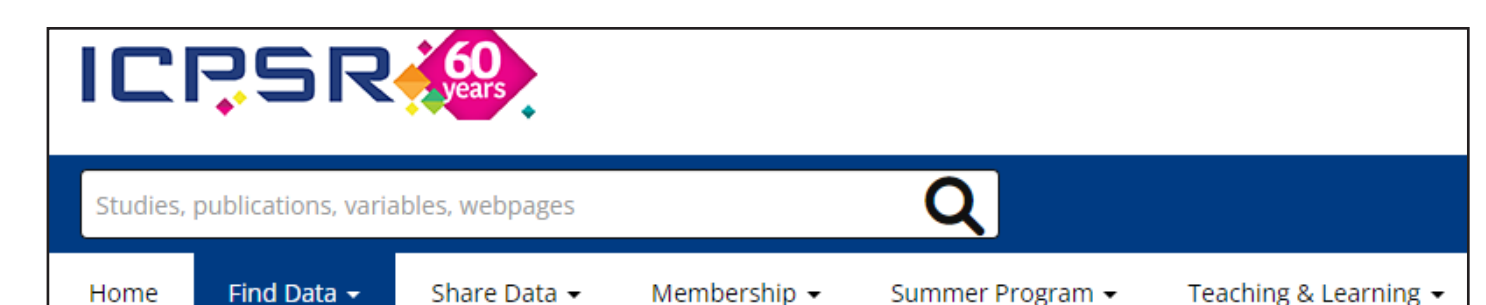
More Tips for Success

- Only request data and variables relevant to primary aims of the study
- Provide sample size or power calculations to demonstrate scientific rigor
- Include analysis plan that reflects the complexities of SWAN data
- Provide compelling justification if requesting rare baseline or early year samples.



SWAN Data Resource

- SWAN data (not biological specimens) are also available at the National Archive of Computerized Data on Aging (NACDA)
- Includes SWAN Cross-sectional data and SWAN Baseline to Visit 10
- Requires registration but no application
- Recommended for student projects



www.icpsr.umich.edu/web/ICPSR/series/00253

Research Implications

- An expansive collection of SWAN biospecimens and datasets are available to external investigators and trainees.
- Resources can be used for pilot studies, research projects for advanced trainees, and manuscripts focused on special topics.
- Allows external investigators the opportunity to access large-scale study resources with potential to fuel important scientific breakthroughs

Acknowledgements

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We wish to express our appreciation for the women who have participated in SWAN for over 25 years and given their time and information for the benefit of women's health!

