Ann S. Bowers
Women's Brain Health Initiative

Researcher Quick Guide

What is the WBHI?

The Ann S. Bowers Women's Brain Health Initiative (WBHI; Director: Emily Jacobs, UCSB) is a research institute headquartered at the University of California, Santa Barbara. The WBHI's mission is to advance the study of women's brain health through deeply collaborative science. By integrating research activities across University of California campuses and bringing together world-class expertise in neuroimaging, computer science/AI and healthcare, the University of California is in a unique position to lead these efforts in partnership with institutions around the world.

What data are being collected?

A central scientific focus of WBHI is the creation of a large-scale dataset of brain imaging and women's health–related phenotypes. This study ("WBHI Base") is made possible by integrating data across participating UC Brain Imaging Centers (BICs). All data generated for WBHI Base is maintained, stored and made publicly available through the Data Coordination Core, located at Stanford University (Director, Russ Poldrack).
We are collecting both MRI (structural and, optionally, resting-state fMRI) and survey data. MRI data would come from your existing protocols, but the survey data would be collected separately either at the time of scanning or by the participant at home soon thereafter.

Are all genders and sexes eligible?

Yes. All are eligible and needed for the study to be most impactful.

What IRB approval is needed?

There is an existing IRB Reliance Registry that spans across the UCs including yours. In addition to consenting into your own study, participants will electronically consent (via a RedCap form) to the WBHI study. If you are already allowed to ask your participants if they would be interested in another related study, you do not necessarily need any additional approval.

Reliance Registry

- Study #: 3175
- Initial approval date: February 17, 2017

Reviewing IRB Protocol

- Protocol Number: 2-25-0062
- Approval Date: February 7, 2025
- Approval Expiration: September 15, 2033

What's in this survey? How long is it?

WBHI 2025 Study Variables

Brain

- Structural T1w
- Structural T2w
- Resting State
- Arterial Spin Labeling
- Diffusion Imaging

Questionnaire

Demographics

- Scan site
- MRI Code
- Scan Date
- Age
- Gender
- Sex
- Adoption status
- Ethnicity
- Race
- Education
- Mother's education
- Employment status
- Income – self
- Income – family
- Handedness
- Height
- Weight

Questionnaire

Medication & Health History

- Prescription medications
- Diagnoses
- Major depressive episodes
- Family diagnoses
- Concussion history
- Covid hx
- Tobacco Use
- Marijuana Use
- Migraine hx
- Sleep

Reproductive Health & Menstruation

- Diagnoses
- Age of menarche
- Menstrual status
- Menopause type
- Age last period
- Menstrual pattern
- First day last period
- History of/reason for amenorrhea
- Number periods past 12 months
- Menopause symptoms

Reproductive Health & Menstruation, cont.

- Current pregnancy
- Pregnancy history
- Assisted fertility treatments
- Number of births
- Age first birth
- Age last birth
- Sex of children
- Perinatal complications
- Postnatal depression

Hormonal Contraception

- Current use
- Current method, duration, reason
- Current formulation, Active/Placebo
- Pattern of use (i.e., skip placebo)
- Hx of use
- Methods used, duration
- Reason for past use

Responses to Hormonal Medication

- Physical symptoms, severity
- Cognitive/Emotional symptoms, severity

Migraine

- Headache recurrence, duration, intensity and number
- Laterality
- Pain characterization
- Effect of physical exertion
- Nausea/vomiting
- Photophobia/Visual issues
- Migraine episodes in past year
- Dx/Year of Dx of migraine conditions (migraine, migraine with/without aura, tension headache, cluster headache)

Depression

- Patient Health Questionnaire (PHQ-9)

The survey takes 5 to 15 minutes to complete and no identifying information is collected. The survey is administered by REDCap and can be completed on any web browser, including mobile devices. Skip logic ensures only relevant questions are given to participants, streamlining the user experience.

Are participants compensated?

Yes. Participants are eligible for a $10 gift card administered digitally via REDCap.

Am I compensated?

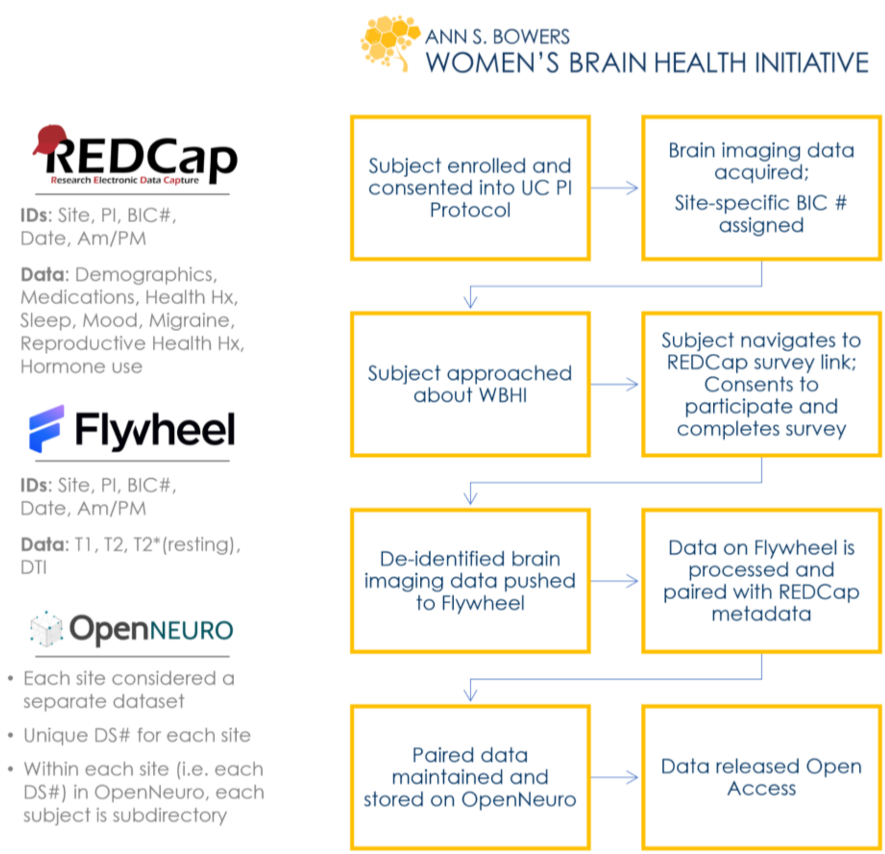
No. But if you are interested in using Flywheel as a data management service, we encourage you to take advantage of WBHI's Flywheel account, provided pro bono.

What would my lab need to do? How does the data get to the WBHI?

At time of scanning, your lab would:

- Ask the participant about their willingness to complete a brief add-on survey.
- If they are, use any web browser to access the RedCap questionnaire (https://redcap.link/bowerswbhi). Central to this is that you enter your lab name and the lab-specific anonymous participant identifier. This greatly helps in linking the survey and MRI data.
- Either have the participant complete the survey while at the MRI center or send them home with the required information to complete it soon thereafter (by filling out the provided business cards with Site, PI Name, Scan Date, MRI Code (Participant ID), and whether the scan took place in AM or PM).
- Initiate the MRI data transfer to your local WBHI Flywheel instance.
  Your lab / lab manager may be contacted to help with any missing data or issues in linking MRI and survey data.

Workflow summary



Women's brain health is understudied. We can fill the void *together.*

While the workflow looks like a lot, in practice this adds a very small amount of time to the participant experience (in some cases mere seconds if they opt to complete the survey at home). Creating a unified University of California Brain Imaging Database, with a set of standardized metrics pooled across sites, represents a watershed moment for the UC system. We have the infrastructure in place to make it happen. We need a modicum of your time and support to put the plan into action.