



THE

SISTER STUDY

BREAST CANCER RESEARCH

WOMAN BY WOMAN, SISTER BY SISTER, WE CAN MAKE A DIFFERENCE!

FEBRUARY 2024

2023/2024 Health Update

Sisters, starting in October 2023, we are contacting you to complete either your Annual Health Update or your more in-depth Detailed Health Update (asked every three years). Please check your emails or mail to complete your questions. To show our appreciation, when you complete the questions, you will be entered into a \$500 gift card drawing.

Thank you!

Our Recent Findings!

Out of nearly 3,400 publications by NIEHS researchers and grantees in 2023, institute leaders selected 30 as **Papers of the Year**. Three of these were led by Sister Study investigators!

Why breast cancer incidence varies across the United States

Environmental exposures and neighborhood-level socioeconomic factors may contribute to geographic disparities in breast cancer incidence, according to NIEHS researchers and their collaborators. Together, the results provide additional evidence for a role of environmental exposures in breast cancer incidence and suggest that **geographic-based risk factors** may vary according to breast cancer subtype.

<http://tinyurl.com/USBrCalnc>



Indoor wood-burning may be linked to lung cancer in U.S. women

Indoor wood-burning from stoves and fireplaces is associated with the development of lung cancer among women in the U.S., according to researchers from NIEHS, including the institute's Division of Translational Toxicology. These findings are some of the **first prospective evidence** in the U.S. demonstrating that even occasional exposure to indoor wood smoke is associated with a higher incidence of lung cancer, including among never smokers.

<http://tinyurl.com/WoodBurnLungCa>

Exploring the link between early-life trauma and diabetes

The association between traumatic childhood experiences and type 2 diabetes varies by race and ethnicity, according to NIEHS researchers and their collaborators. According to the authors, the study suggests that Latina women may be an **understudied population** at a particularly high risk of type 2 diabetes associated with early-life trauma. In addition, tailored prevention and intervention efforts that protect youth from trauma and inhibit likely mediators such as metabolic abnormalities may help ease the burden of type 2 diabetes among women. demonstrating that even occasional exposure to indoor wood smoke is associated with a **higher incidence of lung cancer**, including among never smokers.

<http://tinyurl.com/ELTDiab>

To see all NIEHS Papers of the Year click the link below:

<http://tinyurl.com/NIEHSPLOY2023>

Racial and Ethnic Discrimination and Hypertension by Educational Attainment Among a Cohort of US Women

Sister Study researchers investigated whether the association between racial and ethnic discrimination and hypertension varied by levels of attained education. Approximately **half of all participants** had at least a college degree when they enrolled in the Sister Study. Black / African American women with at least a college degree reported the highest burden of race and ethnicity-based discrimination, with 83% of women with hypertension reporting experiencing everyday discrimination (e.g., unfair treatment at a business), compared to 64% of women with hypertension and a high school degree or less. Everyday discrimination was associated with **higher hypertension risk** among Black women with college or higher education, but not among Black women with some college but no degree. Educational attainment did not modify the association between everyday discrimination and hypertension among other racial and ethnic groups. **Discrimination-related** hypertension may disproportionately affect Black women with the highest levels of educational attainment.

<http://tinyurl.com/HypEdu>

Neighborhood greenness and participation in specific types of recreational physical activities in the Sister Study

Having green spaces in urban environments is known to have important health benefits. These benefits are thought to be achieved, in part, because of increased opportunities for recreational physical activity. Using national land cover data, each Sister Study participant was assigned a score that captured their proximity to green spaces. Compared to those with the lowest level of greenness, participants with the highest level of greenness were more likely to garden, participate in sports, run, walk, and engage in conditioning exercises. These findings suggest that **greenness may promote physical activity** and provide support for building and maintaining green environments as a way to improve human health and wellbeing.

<http://tinyurl.com/PhysActSIS>



Personal care products and hormone-sensitive cancers

A recent Sister Study paper explored how everyday beauty, hygiene, and skincare products could be linked to breast, ovarian, and uterine cancers. The study found that certain combinations of products, particularly in hygiene and beauty categories, might **increase the risk for ovarian or breast cancers**. Interestingly, skincare product combinations were linked to lower risks for breast cancer. The Sister Study questionnaire asked about types of products, such as shampoos or lotions, but did not include questions about specific brands or formulations. Even so, this research provides new insights into a possible impact of our daily personal care product choices on our health and suggests the need for more research on the health effects of these everyday products.

<http://tinyurl.com/PCHormones>



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As always, please contact us at the Sister Study helpdesk toll-free at 877-4SISTER (877-474-7837) or email us at update@sisterstudy.org if you have updates or questions.