



BLACK WOMEN'S HEALTH STUDY



*Working together
to improve the health of
Black women*

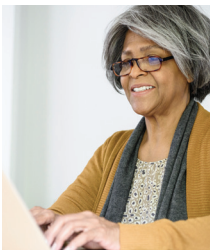
- BWHS Breast Cancer Prediction Tool
- Early Detection of Lung Cancer
- Red Meat and Colorectal Cancer
- New BWHS Research

bu.edu/bwhs

FROM THE BWHS

At the time that we write this newsletter, the COVID pandemic seems to be letting up in the U.S. Regrettably, many families have suffered greatly. We can only hope that the worst is behind us.

This newsletter brings you news of some current BWHS research. We describe a new breast cancer prediction tool for Black women, which is a direct result of the information provided by BWHS participants as well as Black participants from several other studies. We report on BWHS contributions to improvement in lung cancer screening guidelines. Also described are results from a BWHS investigation of red meat consumption in relation to the risk of colorectal cancer. New research efforts, presented in these pages, include research on Parkinson’s Disease, MGUS (monoclonal gammopathy of unknown significance, a precursor to multiple myeloma), and hair loss.



There is still time to complete your 2021/2022 Health Survey.

You can send in the paper questionnaire, complete the questionnaire online (www.bu.edu/bwhs — use the link on the home page), or call for a telephone interview (800-786-0814). Your update is crucial to the continued work of the BWHS. As you know, the study does not add new participants and relies on the ongoing participation of the original women who enrolled in 1995. The time you take to complete the questionnaires is well-spent and has enabled research, like that described in this newsletter, which will benefit generations to come. Published BWHS research is described on the BWHS website, (www.bu.edu/bwhs/research) with brief descriptions and links to the relevant scientific articles. If you have already returned your questionnaire, your 8-digit study number at the bottom left of the back cover of this newsletter will end in “R”. Please join the 25,344 participants who have already returned their questionnaires and contribute your experience and your voice.

CONTACT INFORMATION

Telephone: 1-800-786-0814

Email: bwhs@bu.edu

Fax: 617-738-5119

Website: www.bu.edu/bwhs

Facebook: www.facebook.com/TheBWHS



Boston University Medical Center
Slone Epidemiology Center

Address: Black Women’s Health Study
Slone Epidemiology Center
Boston University Medical Campus
72 East Concord Street, L-7
Boston, MA 02118

Additional copies of this newsletter are available on a first come, first served basis.

NEW BREAST CANCER PREDICTION TOOL



University of Chicago Medicine, Chicago, IL

Black women in the U.S. are more likely to develop breast cancer at younger ages than White women. Advances in breast cancer treatments have improved survival, but death rates from breast cancer are still substantially higher in Black women than in White women. Finding breast cancers when they are small and easier to treat is one path to reducing breast cancer

deaths. Mammography is the main way that breast cancers are detected, but recommendations for when to have mammograms are based primarily on age and family history of breast cancer. Risk prediction tools that take into account many risk factors for breast cancer, like body size at age 18 or age at first childbirth, can be used by doctors to estimate a woman's predicted risk of developing breast cancer in the next five years.

Most risk prediction tools were developed in data from White women and work less well for Black women. We used data from three studies of breast cancer in U.S. Black women to develop a new risk prediction model based on how strongly many risk factors were related to risk in Black women. We then tested the model, or "risk calculator", in 15 years of BWHS data. We found that the model worked better at predicting risk in Black women than previous models, and it worked best for predicting risk of breast cancer in women younger than age 40. This is very important because women under 40 are not usually recommended for screening and therefore often do not discover a cancer until it has grown large enough to be felt, by which time treatments may be more difficult and the prognosis less certain.

We hope that the new model will be used by primary care doctors to guide screening recommendations and also guide referral for genetic testing, particularly for young Black women, leading to earlier diagnosis and reduced mortality. For older Black women, the tool can guide decision-making about how often to have mammograms and whether to also have an MRI or other type of screening. The risk prediction tool can be found at www.bu.edu/slone/bwhs-brcarisk-calculator.

Palmer JR, et al. A validated risk prediction model for breast cancer in U.S. Black women. J Clin Oncol 2021.

CURRENT RESEARCH

EARLY DETECTION OF LUNG CANCER: WHO SHOULD HAVE A CT SCAN FOR SCREENING?

With recent improvements in treatments for lung cancer, finding these cancers earlier can make a difference in survival from the disease. The best method of detecting early lung cancers before the individual has symptoms is CT scan, a special kind of x-ray that is able to detect very small tumors. However, because CT scans involve exposure to radiation and are also quite costly, they cannot be widely used for screening. Instead, guidelines have



been established for screening those at highest risk based on a person's smoking history and age. The 2013 guidelines recommended lung cancer screening for adults ages 55–80 who had at least a 30 pack-year history of smoking and were still smoking or had quit less than 15 years ago. (A “pack year” is the number of years of smoking multiplied by number of packs smoked per day — a person who smoked a pack every day for 30 years would have 30 pack-years of smoking.) It was later found that a higher proportion of Black adults than White adults who developed lung cancer would not have been considered eligible for screening under the guidelines. Why? One important reason was that lung cancer tends to occur at younger ages and with a lower level of smoking in Black Americans than in White Americans. Thus, Black individuals who actually were at high risk of lung cancer but who did not have a 30 pack-year history of smoking did not meet the 2013 screening guidelines. To reduce this disparity, the guidelines were revised in 2021 in two respects: the age limit was reduced from 55 to 50, and the minimum number of pack-years of smoking was reduced from 30 to 20.

We used data from the BWHS to compare how many participants diagnosed with lung cancer would have been eligible under the 2013 and 2021 screening guidelines. Under the 2013 guidelines, 23% of BWHS lung cancer patients who had smoked would have been eligible for lung cancer screening. Under the new 2021 guidelines, 34% would have been eligible. Thus, our findings indicate that the new guidelines will markedly increase the proportion of high-risk Black women considered eligible for lung cancer screening. Insurance or Medicare coverage for the test should be available for women who meet the eligibility requirements.

We also examined what would happen if all former smokers who met age and pack-years criteria were considered eligible, rather than only former smokers who had quit within the previous 15 years. The proportion of BWHS lung cancer patients who would have been eligible increased from 34% to 48%.

BWHS investigators are also collaborating with two other studies to develop a risk prediction model for lung cancer in Black individuals, just as they have for breast cancer. The vast majority of lung cancers occur among people who have smoked. As always, the best way to prevent lung cancer is to avoid smoking.

Potter AL, et al. Evaluating eligibility of US Black women under USPSTF lung cancer screening guidelines. *JAMA Oncol* 2021.

American Institute for Cancer Research

RECOMMENDATIONS ON
**RED &
PROCESSED MEAT**

AVOID PROCESSED MEATS

LIMIT RED MEATS (LIKE BEEF, PORK, LAMB) TO 18 OUNCES PER WEEK

RED MEAT AND COLORECTAL CANCER

On the very first BWHS health survey in 1995, participants reported how often and how much they ate of 68 foods. Dietary questionnaires were also included on later health surveys. BWHS researchers have used this information to understand the relation between what

we eat and risk of a number of health outcomes. Recently, BWHS researchers found that intake of red meat was associated with increased risk of colorectal cancer. Black Americans are more likely than other racial/ethnic groups to be diagnosed with or die from colorectal cancer. Cutting down on red meat intake, in keeping with current cancer prevention guidelines, is probably a good idea.

Yiannakou, et al. A Prospective Analysis of Red and Processed Meat Intake in Relation to Colorectal Cancer in the Black Women's Health Study. *J Nutr* 2022.

Note to participants: The 2021/2022 online health survey includes a dietary questionnaire. Please fill it out if you have not done so yet.

CURRENT RESEARCH

RESEARCH ON HAIR LOSS

Some years ago, Dr. Yolanda Lenzy (a dermatologist) asked BWHS investigators if we would be interested in studying a type of hair loss on the top of the scalp called central centrifugal cicatricial alopecia (CCCA) that most commonly affects Black women. The causes have not been established. Together with Dr. Lenzy, we developed a questionnaire about hair loss that included photographs of various degrees of hair loss on the scalp. We included the questions as an online supplement to the 2015 BWHS health questionnaire. Based on data of over 6,000 participants who completed the online questionnaire, we found that type 2 diabetes was associated with a higher risk of CCCA (Coogan et al. *Int J Women's Dermatol* 2019;36:33-9). We are now participating in another study with Dr. Lenzy. Previous research found that certain genes were associated with a higher risk of CCCA. With funding from the American Dermatology Association, blood and saliva samples from BWHS participants with CCCA will be used to confirm and expand those findings.



RESEARCH ON MGUS

BWHS investigators and their collaborators have received two grants from the National Cancer Institute to study risk factors for monoclonal gammopathy of undetermined significance, or MGUS. MGUS is a benign, asymptomatic precursor to multiple myeloma, the most common blood cancer affecting Black men and women. The 5-year survival rate of multiple myeloma is only 50% and there are no known preventive measures. Black individuals have more than twice the risk of multiple myeloma of White individuals. The goals of the two five-year studies are to identify factors that may explain these racial disparities in MGUS and multiple myeloma. The factors include individual and neighborhood socioeconomic status, the built environment, lifestyle factors such as obesity and physical activity, medical history such as diabetes, use of anti-inflammatory medications, and history of infections.

RESEARCH ON PARKINSON'S DISEASE

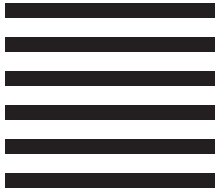


Parkinson's Disease (PD) is a brain disorder that affects nearly 1 million people in the United States. Parkinson's symptoms usually develop slowly and worsen over time. The symptoms are varied

and there is no definitive test, so it can be difficult to diagnose accurately. The disease occurs when neurons (nerve cells) in the area of the brain that controls movement die or stop functioning. As the disease progresses, people may have difficulty with walking, balance, and talking, as well as mental and behavioral changes, sleep problems, depression, memory difficulties, and fatigue. The causes of PD remain largely unknown and there is currently no cure. Treatment options include medications and surgery. Most people with PD first develop the disease at about age 60 or older, but some experience "early-onset" disease before the age of 50. Black women have been historically underrepresented in studies of PD. They have a lower incidence of the disease but experience a higher mortality rate and faster progression of disease than either men or White women. Funding from the Michael J. Fox Foundation for Parkinson's Research will be used to study the disease in the BWHS. Visit www.michaeljfox.org for more information on Parkinson's Disease.



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