

A large, new grant from the Breast Cancer Research Foundation will further analyze racial and ethnic disparities in breast cancer. Led by Eric Winer, MD, the project will be carried out by Leah Ferrucci, PhD, MPH, Assistant Professor of Epidemiology, Melinda Irwin, PhD, MPH, Susan Dwight Bliss Professor of Epidemiology, and Deputy Director of Yale Cancer Center, as well as Oncology Research Registered Dietitians Maura Harrigan, MS, RDN, CSO, and Courtney McGowan, MS, RD, CSO, CNSC, CD-N.

“Breast cancer survival rates have improved 50 percent,” said Dr. Irwin, “but that isn’t true by race and ethnicity. For example, breast cancer mortality is about 40% greater in Black women compared to non-Hispanic whites. While Latina women have lower risk of breast cancer-specific mortality than white women, breast cancer remains the leading cause of cancer death among Latinas and they are more likely to be diagnosed with regional or distant breast cancer and tumors with worse prognosis compared to whites. The work Dr. Ferrucci and I have done has shown that some of this is due in part to lifestyle factors related to weight, diet, and exercise.” Risk of developing fourteen different cancers, including breast cancer, is associated with obesity.

The new study will extend the scientists’ previous work on the links between breast cancer and lifestyle factors such as obesity, and how outcomes can be improved through an intervention program of weight loss, exercise, and dietary changes. But this time, Drs. Ferrucci and Irwin will concentrate on Black and Latina women, who have been understudied in this area. There will also be careful attention paid to how socioeconomic status could be a potential barrier to participating in a healthy eating and exercise intervention for some study participants.

“There are structural issues at play that track with socioeconomic status,” said Dr. Ferrucci. “Things like access to food. Is there a grocery store within reach to get fresh fruit and vegetables? The cost of food has skyrocketed, and as prices go up, people on a limited budget are going to purchase radically different types of food. Or what if they want to go out and exercise in their neighborhood but don’t feel safe, even to take a walk?”

Language, too, has been a barrier. In previous studies the scientists had to limit enrollment to English-speaking participants due to lack of resources to translate the intervention. In addition, they did not have Spanish-speaking dietitians who could manage the intervention program. That may change for the new study.

They hope to identify barriers and challenges through interviews and a survey sent to all female patients who have been diagnosed with breast cancer in the last five years. The survey will ask about barriers to eating healthy and exercising. Drs. Ferrucci and Irwin also will talk to Black and Latina women who participated in their earlier studies, to learn what the women did or didn’t like about the existing program.

“All those data will help us to better design an intervention that will be most appropriate for these study participants,” said Dr. Ferrucci.

“We want to understand directly from them what to build into this intervention to support them in making these lifestyle changes, which could include systems-level changes in oncology care,” said Dr. Irwin.

They plan to begin recruiting participants for the intervention study later in 2023 by working with referring physicians and community organizations, with the goal of eventually enrolling 150 Black and Latina women

diagnosed with breast cancer into the intervention component of their research.

They expect benefits to be similar to those found in their previous trials, where exercise and healthy eating led to weight loss and better cancer outcomes. Dr. Ferrucci would not be surprised if the intervention had an even bigger effect in this group. Dr. Irwin agrees. “Some observational research suggests exercise and diet may be more strongly associated with survival among Black and Latina women with breast cancer,” she said. “The underlying hypothesis is that you could see a stronger impact in these populations in an intervention setting.”



## ADDRESSING DISPARITIES IN BREAST CANCER

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