UNIVERSITY OF HAWAI'I CANCER CENTER
USC UNIVERSITY OF SOUTHERN CALIFORNIA

Multiethnic Bulletin

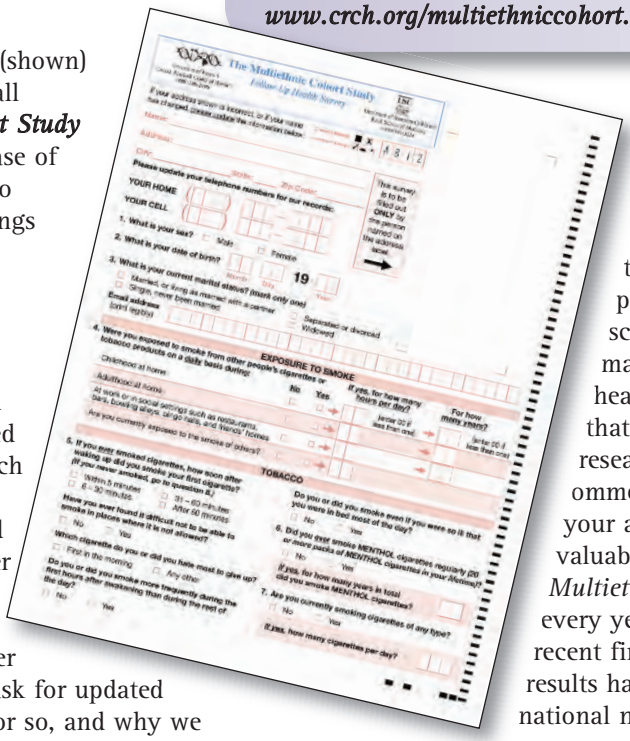
A NEWSLETTER FOR THE PARTICIPANTS IN THE MULTIETHNIC COHORT STUDY

VOL. 11 · ISSUE 1 · FALL 2011

Multiethnic Cohort Update

For more information on the MEC, please visit our website at *www.crch.org/multiethniccohort.*

The brief ***Follow-Up Health Survey*** (shown) is being mailed in four phases to all members of the ***Multiethnic Cohort Study (MEC).*** We are currently in the third phase of the mailings and have sent the survey to 120,000 MEC members so far. Our mailings will continue through the fall of 2012.


The Multiethnic Cohort Study
Follow-Up Health Survey

Why your completed survey is so important to the MEC.

You should take pride in the fact that you helped to start this large, renowned study in 1993-1996 when you completed our very first survey. A cohort study such as this one follows each member over a long period of time to examine diet and lifestyle risk factors for cancer and other diseases. Only by doing so can MEC researchers determine why some individuals are more likely to develop cancer than are others. This explains why we ask for updated information from you every five years or so, and why we rely on our members who helped us to start the study. No other person can take your place!

We have come a long way together, and we want you to know that we greatly appreciate your continued participation over these many years. It is vital to the success of the study and to cancer research.

Over 200 scientific papers published.

Based on information compiled from your surveys, MEC researchers have written or contributed to more than two hundred papers that have been published in scientific journals. These papers make other scientists and public health officials aware of our work, so that they can use it to make further research advances as well as health recommendations. Thus, as you can see, your answers are a considerable and valuable contribution to research. In these *Multiethnic Bulletins* that we send you every year, we report to you some of the recent findings from the MEC. Some of our results have even been recognized in the national news media.

The MEC interviewing team.

If we do not hear from you several months after sending the questionnaire, one of our expert MEC Interviewers may call you to be sure that you received it and, if you prefer, to help you answer the survey questions over the phone. It takes just a short time to complete it. Many MEC members seem to prefer doing it over the phone. ❖

IN THIS ISSUE

MEC Interviewers at the University of Southern California Keck School of Medicine. Back row: ***Michelle Armenta, Jeanne Fitzgerald, Mariela Ramirez.*** *Front row:* ***Brenda Figueroa, Chanthel Figueroa, Adel Irimian, Denisse Macias.***

MEC Interviewers at the University of Hawai'i Cancer Center. Back row: ***LaVonne Takaezu, Naomi Hee.*** *Front row:* ***Clara Richards, Janine Abe.***

Obesity and Breast Cancer Survival in the Multiethnic Cohort Study

Breast cancer is the most common cancer among women in the United States. According to the National Cancer Institute, this year an estimated 207,090 women will be diagnosed with and 39,840 women will die from breast cancer. In addition to the treatment a woman receives, the stage of the disease at the time it is diagnosed, certain characteristics of the tumor, her age at diagnosis, her race/ethnicity, and socioeconomic factors (such as income and access to health care) all influence breast cancer survival. Obesity is one of the few modifiable factors that may influence risk of death due to cancer of the breast, but not much research has been done to evaluate this association in ethnically diverse populations.

To investigate this question, MEC investigators examined the effect of obesity before diagnosis on the risk of death due to breast cancer in the Multiethnic Cohort (MEC). The MEC represents a unique population to study this question because of the five main ethnic groups: African Americans, Caucasians, Japanese Americans, Latinos, and Native Hawaiians. To evaluate this question in postmenopausal women, we only included women who were aged 50 and older when they entered the study. As you may recall, we obtained information on your height and weight in the questionnaire that all of you completed when you first joined

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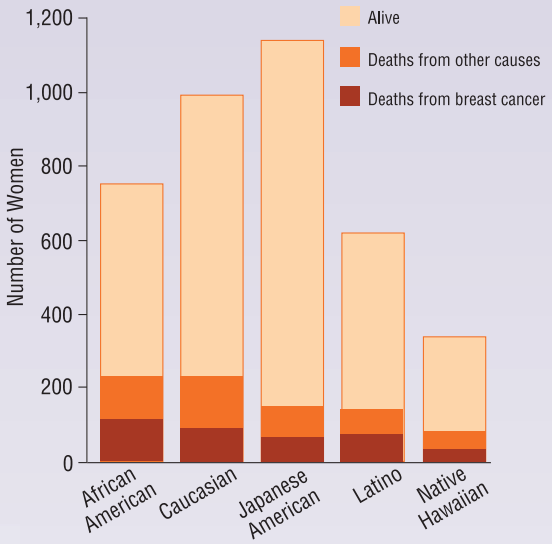
Deaths Among Women with Breast Cancer Diagnosed Between 1993 and 2007 by Ethnicity



IN THE SPOTLIGHT . . . SCIENTIST BEHI

Christopher Haiman, Sc.D.

His name is probably not a familiar one in relation to the Multiethnic Cohort Study (MEC), but he plays an important behind the scenes role in the project. Dr. Christopher Haiman is Associate Professor of Preventive Medicine at the University of Southern California's Department of Preventive Medicine in the Keck School of Medicine, and has been associated with the MEC since 2001, when he first began his postdoctoral training there. In fact, Dr. Haiman says he chose to train at USC because one area of focus of the MEC is genetic epidemiology, the study of genetic susceptibility to disease, which was his area of research interest while pursuing his doctoral degree.

At a young age, Dr. Haiman recognized that he wanted to help people, but he didn't know whether he would accomplish this as a scientist or a doctor. As it turned out, his academic path led him toward a career as a scientist, and he received a Bachelor of Science degree in genetics from the University of California at Berkeley and a Doctor of Science degree in epidemiology from the Harvard School of Public Health.

Dr. Haiman is in charge of the scientific direction of many of the genetic studies in the MEC. He also oversees the biorepository facility at USC that collects, catalogs, and stores samples of human biological materials for the MEC participants in California, such as urine, blood, tissue cells, DNA, RNA and protein for laboratory research (there is a similar biorepository of samples for the Hawai'i participants maintained at the University of Hawai'i). Medical information is also collected and stored along with written consents to use the samples in laboratory studies. His lab processes and manages MEC biospecimens for use in both MEC and other sub-studies that are offshoots of the MEC.

At this time, Dr. Haiman points to three significant genetic research achievements of the MEC. These important findings confirm that: 1) African American men have a particularly strong genetic susceptibility for developing prostate cancer; 2) African American women have a genetic susceptibility for developing aggressive forms of breast cancer; and 3) for a given level of smoking, the risk of developing lung cancer is not the same across the different ethnic populations of the MEC. The challenges Dr. Haiman cites in working on

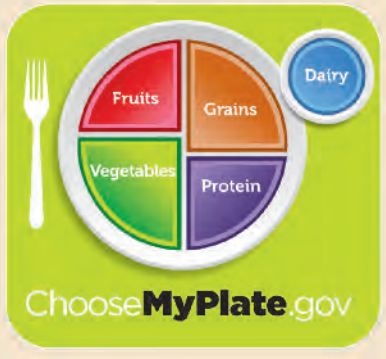
MyPlate: A New Icon for Healthful Eating

In June 2011, The United States Department of Agriculture (USDA) revealed **MyPlate** as a new tool to promote healthy eating. The foundation for this new guide came from the *2010 Dietary Guidelines for all Americans,* which provides science-based advice from the U.S. Government on how to eat healthfully.

MyPlate replaces the familiar pyramid image (icon), which was first introduced in 1992 and later revised in 2005. Many nutritionists said the pyramid had become too complicated and tried to communicate too many messages for people to understand easily.

MyPyramid had six labeled groups: grains, vegetables, fruits, milk, meat and beans, and oils; it also included physical activity in the icon. In contrast, **MyPlate** emphasizes only five food groups (grains, vegetables, fruits, dairy, and protein) and does not include physical activity in the icon. The omission of physical activity does not mean that physical activity is not important. Physical activity is still a very important part of a healthy lifestyle; however, the **MyPlate** icon focuses on healthy eating.

MyPyramid was first introduced in 1992 and focused on six food groups for healthy eating, as well as physical activity.



MyPlate replaced MyPyramid in 2011 and focuses on five food groups for healthy eating.

Oils are no longer included as a food group, since oils are typically a component in food and are usually not a separate item on the plate. Sweets and desserts can be included in a healthy diet when they fall within the food group recommendations and when the caloric intake stays within the recommended levels.

The purpose of **MyPlate** is to help people think about their entire meal, rather than on ingredients or parts of food. Also, using a plate simplifies the message and gives an idea of what should be on the plate when sitting down to eat. **MyPlate** reminds people to make half of their plate fruits and vegetables, and shows the other important food groups needed for a well-balanced meal: whole grains, lean proteins, and low fat dairy.

Other recommendations from the USDA include "Make half your plate fruits and vegetables," "Switch to 1% or skim milk," "Make at least half your grains whole," and "Vary your protein food choices." The guidelines also recommend portion control while still enjoying food, as well as reductions in sodium and sugar intakes.

For more information, go to www.ChooseMyPlate.gov. The website has nutrition information and "how-to" materials about healthy eating. There are also interactive tools, such as the *Daily Food Plan* or *Food Tracker.* ❖

ND THE SCENE

the MEC include having to handle the very large numbers of biospecimens stored on MEC subjects in California and Hawai'i, and having to process the tremendous amount of genetic data that we are now able to generate. Dr. Haiman states that his major contribution to the MEC is helping to discover how genes and lifestyle (such as diet and smoking) contribute to the differences in cancer risks across populations.

Besides cancer, Dr. Haiman is involved in research related to other human diseases, such as the genetics of diabetes in Latinos and obesity in African Americans.

Dr. Haiman has published many research articles based on the MEC in prominent scientific journals. In addition to his commitment to research, he serves as an instructor, lecturer, and mentor to many students at USC.

Outside of his busy schedule, Dr. Haiman relishes quality time spent with his wife and two young children, ages 4½ and 1½ years of age. He says he's definitely a beach person whenever he can find the time to spend away from his work. And yes, he confirms that he does use sunscreen whenever he goes out into the sun. ❖

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Obesity and Breast Cancer Survival in the Multiethnic Cohort Study

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the study in 1993-1996. This self-reported height and weight information was used to calculate a body mass index (BMI) value, which is a measure of body fatness. For this investigation, BMI was categorized as low-normal (<22.5 kg/m^2), high-normal (22.5-24.9 kg/m^2), overweight (25.5-29.9 kg/m^2), and obese (≥ 30 kg/m^2).

After 14 years in the MEC, 3,842 women had been diagnosed with invasive breast cancer. Fortunately, the majority (70%) of these cancers had not spread beyond the breast, reflecting well on the use of regular mammograms and breast self-examination (BSE) by the women in the MEC to detect their cancers early. The average age at diagnosis was 69 years, and, overall, 23% of the women were obese before they were diagnosed. African American and Native Hawaiian women were more likely to be obese compared to Caucasian, Japanese American, and Latino women.

After following these women with breast cancer for an average of 6.2 years since their diagnosis, we found that 804 of them had died, with 376 of these deaths attributed to breast cancer and the remainder to other causes (see figure for the ethnic distribution). Overall, the women had very good survival, and only 9% of them had died from their breast cancer. After taking into consideration other factors that may affect survival (mentioned at the beginning of this article) so that we could focus on obesity alone, we estimated that obese women had on average a 45% higher risk of dying from breast cancer compared to women at the high end of the normal BMI range. This trend of a higher risk associated with obesity was similar across all the ethnic groups. In contrast, being overweight but not obese only showed a slight increase in the estimated risk of death from breast cancer.

Thus, using the unique population in the MEC, we were able to confirm the importance of a healthy weight in postmenopausal women, in that being obese increased the chance of death from breast cancer. These results emphasize that maintaining moderate weight throughout adulthood and preventing obesity, regardless of ethnicity, may be beneficial for breast cancer survival in women. Findings from this study were published in the medical journal *Breast Cancer Research and Treatment* in 2011. The full scientific citation is provided below. ❖

Conroy SM, Maskarinec G, Wilkens LR, White KK, Henderson BE, Kolonel LN. Obesity and breast cancer survival in ethnically diverse postmenopausal women: the Multiethnic Cohort Study. Breast Cancer Res Treat. 2011 Sep;129(2):565-74.

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