



UNIVERSITY OF HAWAII
CANCER CENTER



A Newsletter for the Participants
of the Multiethnic Cohort Study

Multiethnic BULLETIN

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Multiethnic Cohort Update

We are very excited to have started the mailing of our new *Follow-Up Health Survey* late last year to 69,000 *Multiethnic Cohort Study* (MEC) members, so far. In case you have not yet received your survey, we will be mailing it to 70,000 more study members over the next few years. Each and every completed survey we receive counts – answers from your survey help the MEC researchers to learn more about cancer and other diseases.

Healthy Aging and Cancer Survivorship

For the first time in the *Follow-Up Health Survey*, we are asking questions about healthy aging and cancer survivorship. Men and women age 65 years or older represent 13% (40 million) of the population in the United States. By 2030, this number will increase to about 72 million. Now that the average age of the MEC participants is 70, we are expanding our research to issues of great importance to the elderly, such as how to maintain physical function and maximize quality of life. Because our main research focus remains on cancer and the majority of cancers occur in people aged 65 or older, we are particularly interested in factors that lead to healthy aging. The goal is to prevent cancer and lessen lingering health issues among cancer survivors. There are currently 27,174 cancer survivors among MEC participants.

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Follow-Up Health Survey

Previous research has shown that an engaged and active lifestyle at any age is linked to physical and mental health. There is much interest in strategies to maintain health and independence for older individuals. In particular, research has focused on functional status as measured by physical capacity (e.g., walking a block, climbing stairs, lifting groceries, etc.) and ability to do daily activities (e.g., bathing/dressing, preparing meals, grocery shopping, etc.), as well as social/emotional supports (e.g., friend and family support, active engagement in community, etc.), which have been linked to how people adjust to aging or to life after a cancer diagnosis. Conversely, cancer and its treatment can significantly diminish one's functional capacity, which is a particular concern for the elderly because of other age-related conditions.

For that very reason, in the latest *Follow-Up Health Survey*, we included questions related to daily activities, social/emotional support, and quality of life. Data collected from cancer survivors and similarly aged cohort members who had not been diagnosed with cancer will help us distinguish between age-linked effects resulting from the impact of cancer and those that are the result of aging. Our goal is to provide scientific data that will help to find ways to maintain physical function, improve quality of life, and promote healthy aging, especially in cancer patients.

You have been helping the MEC for over 20 years now and we sincerely appreciate and look forward to your continued support. *A heartfelt thanks for your valuable help!*

If you have any questions about the study, please call:
1-800-786-3538 (toll free in California),
(808) 586-2996 (Oahu) or
1-877-415-8323 (toll free in Hawai'i).



If you have recently moved or have a new phone number, please call us at one of the phone numbers above or visit our website to ensure that you will receive future mailings.

Change in Smoking Rates Over Time in the Multiethnic Cohort

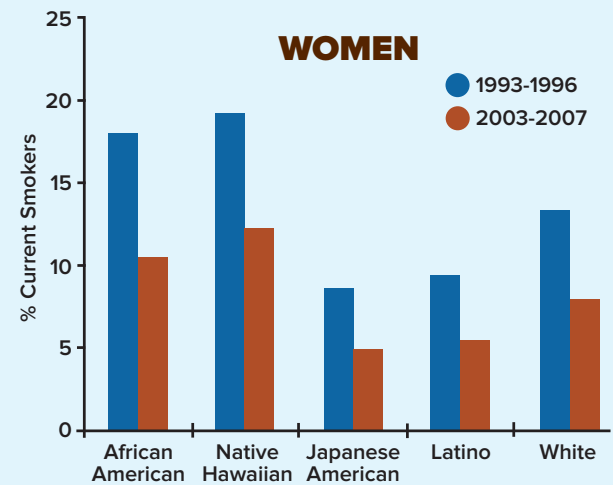
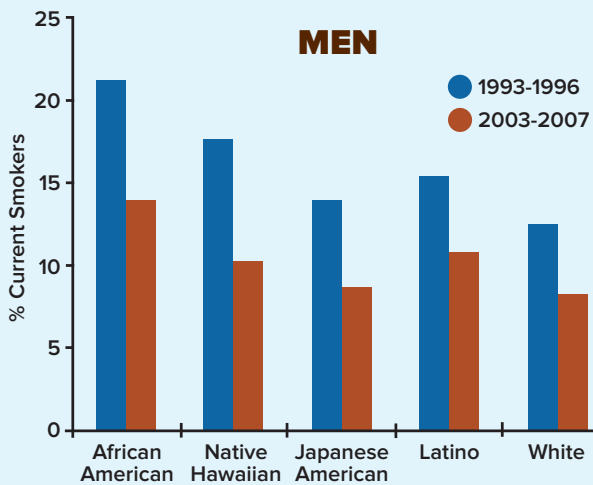
In recent decades, cigarette smoking rates have shown steady declines in US adults. These changes have been explained by the increasing cost of cigarettes, more restrictions on where and when people may smoke, and changes in social norms about smoking.

Smoking rates have also declined over time in the MEC as well. The graphs below show changes in smoking rates between the MEC baseline questionnaire (1993-1996) and the 2003-2007 follow-up questionnaire among the 98,500 MEC participants who completed both questionnaires. In the baseline survey,

when the average age of the participants was 58 years, the overall smoking rate was 15% in men and 12% in women. Among men, a higher percentage of African Americans and Native Hawaiians reported smoking, compared to Latinos, whites and Japanese Americans. Among women, Native Hawaiians and African Americans also had the highest smoking rates, followed by whites, Latinas and Japanese Americans. In the follow-up survey (about 10 years later), the smoking rates decreased to 10% in men and 7% in women.

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Smoking Rates in the MEC for 1993-1996 and 2003-2007, by Sex and Ethnicity



Rates are adjusted for age.

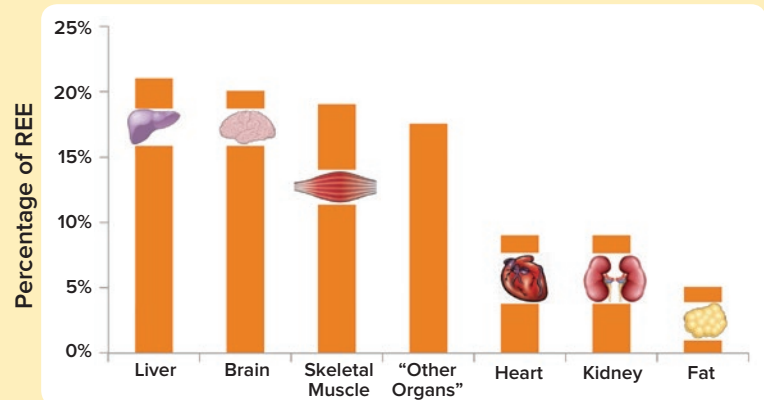
Resting Energy Expenditure

When people say they have a hard time losing weight because they have “a slow metabolism,” they are referring to having a low resting energy expenditure. Resting energy expenditure, or REE, is the amount of calories (kcal) from diet that a person needs to maintain vital organ functions while resting (e.g., for blood circulation, urine filtration and breathing).

Interestingly, as shown in the Figure (to the right), our organs require different amounts of energy for maintenance at rest. For an average-sized person, the liver, brain, and skeletal muscle require a large amount of energy at rest, while body fat takes little energy to maintain.

Why is a low REE, or “a slow metabolism,” often blamed for difficulty in losing weight? It is because REE represents the majority (60-75%) of people’s total caloric needs. Therefore, a person with a high REE uses more of their food calories for maintenance and is less likely to gain weight.

Energy Used by Organs at Rest

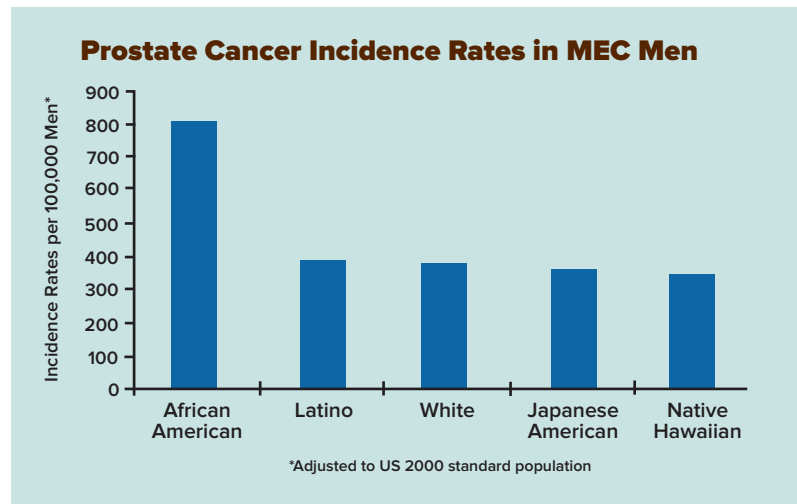


Resting energy required for maintenance of our vital organs. “Other organs” include the bones, skin, stomach, intestines, glands and lungs.

Prostate Cancer in the Multiethnic Cohort

Prostate cancer is the most common cancer (other than non-melanoma skin cancers) and is the second leading cause of cancer death (behind lung cancer) in American men. In 2014, about 233,000 new cases of prostate cancer will be diagnosed in the US and about 29,480 men will die of their disease. Prostate cancer is strongly related to older age, increasing rapidly in incidence after age 50. About 6 in 10 cases of prostate cancer occur in men over the age of 65.

Other than older age, there are very few characteristics known to increase risk for prostate cancer. However, African American men are much more likely to be diagnosed with prostate cancer than white men in the US and to have their cancers diagnosed at an earlier age. Men whose fathers, brothers, or sons have been diagnosed with prostate cancer are also at higher risk for the disease. There is now strong evidence that certain genes are linked to prostate cancer. While many lifestyle factors, such as diet, alcohol, obesity, smoking, and physical activity, have been studied to see if they change the risk of prostate cancer risk, the findings have been unclear. Further research is needed to find ways that men can reduce their chances of getting a prostate tumor, especially for men in one of the high risk groups.



In the MEC, the risk of prostate cancer increases with age in a similar way as the US. Major ethnic differences in risk were also found. The graph shows that Latino, white, Japanese American and Native Hawaiian men have similar risk of this disease. However, African American men are more than twice as likely to be diagnosed with prostate cancer.

DID YOU KNOW?

...that the Multiethnic Cohort Study is the first study of its kind that aims to link ethnicity with the incidence of cancer?

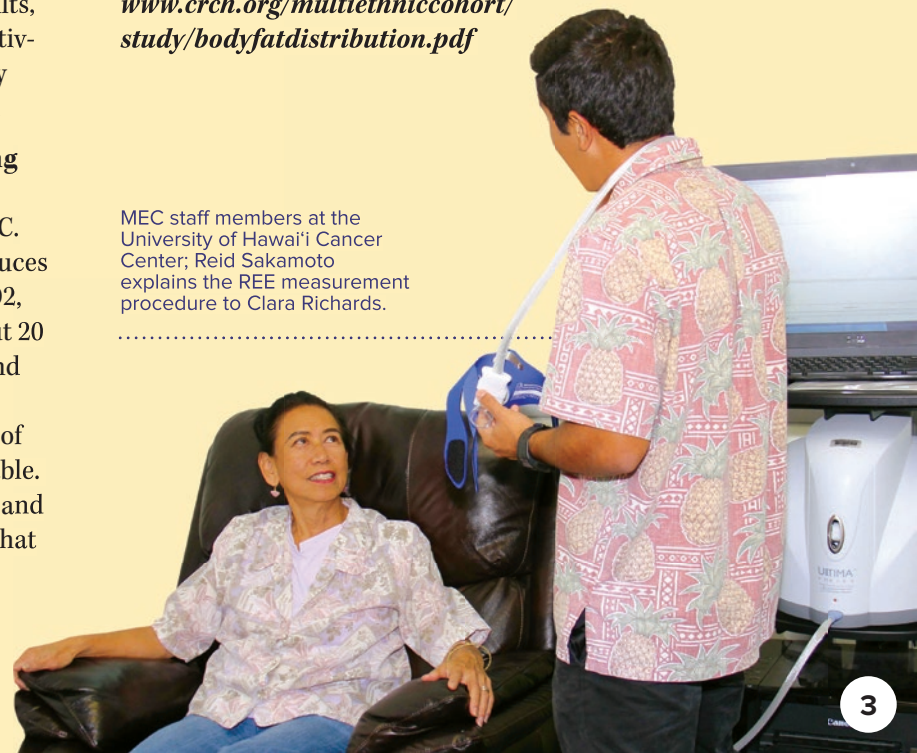
...that of the five different ethnic groups in the Multiethnic Cohort Study, Latinos overall have the lowest risk of developing cancer?

Can we increase our REE? Because REE is closely correlated to one's fat-free mass (muscle and organs), one way to increase REE is to increase muscle mass. For this reason, REE is often higher in men than women, in young adults than older adults, and in people with a large body size. Increasing physical activity helps to lose weight by burning food calories and also by increasing REE due to the building of a larger muscle mass.

As part of a **new MEC ancillary study** (“**The Body Imaging Study**”), we are measuring REE by indirect calorimetry in 2,000 men and women among five ethnic groups in the MEC. Indirect calorimetry calculates the heat that a person produces at rest based on the uptake of oxygen and production of CO₂, as measured in his or her breath. The procedure takes about 20 minutes and requires the participant to rest in a recliner and breathe comfortably while wearing a mask. This is a rare opportunity to study REE in a large number of older adults of various ethnic/racial origins for whom little data are available. Also, we will be able to examine which components of diet and physical activity are related to higher REE levels. We hope that you will choose to join the study if you are contacted.

For more information on “The Body Imaging Study” of the Multiethnic Cohort, please visit our website at www.crch.org/multiethniccohort/study/bodyfatdistribution.pdf

MEC staff members at the University of Hawai'i Cancer Center; Reid Sakamoto explains the REE measurement procedure to Clara Richards.





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CURIOUS FACTS

BASED ON SURVEY DATA THAT YOU REPORTED UPON JOINING THE MEC

- 64% of participants who reported that they were currently smoking in 1993-1996 no longer smoked in 2010-2012; women were slightly more likely to report that they were still smoking than men.
- 70% of MEC participants reported ever being exposed to smoke from other people's cigarettes or tobacco products on a daily basis: 61% were exposed during their childhood at home, 56% during their adulthood at home, and 76% at work or in social settings.
- The most frequently consumed beverage reported by both men and women is orange or grapefruit juice followed by regular coffee.
- The oldest participants in the MEC are now 96 years old.
- 114,863 participants have been in the study for at least 20 years.
- The most common medical conditions diagnosed in families of MEC participants are high blood pressure, heart attack, diabetes and stroke.

Change in Smoking Rates Over Time in the Multiethnic Cohort

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African American men still showed the highest rate, while Japanese American women had the lowest rate. About 48% of the participants who smoked at baseline had quit smoking on the follow-up survey. Quitting was common in all sex and racial/ethnic groups.

These changes are very much in line with what was observed nationally. For US adults aged 65 years and older, the smoking rates dropped from 13.0% in 1995 to 8.6% in 2005. Cigarette smoking is the leading cause of preventable deaths, accounting for one of every five deaths in the US. Strong evidence indicates that smoking cessation, even late in life, decreases the risk of lung cancer and other smoking-related diseases, and improves quality of life. Therefore, it is never too late to quit smoking.