



UNIVERSITY OF HAWAII  
CANCER CENTER



A Newsletter for the Participants  
of the Multiethnic Cohort Study

# Multiethnic BULLETIN

VOL 21 FALL 2021

## Multiethnic Cohort Update

28  
YEARS

OF RESEARCH

75k

BIOLOGICAL  
SPECIMENS  
COLLECTED

800+

SCIENTIFIC  
PAPERS  
PUBLISHED

Congratulations on being a member of the Multiethnic Cohort Study (MEC) for 28 years! We would like to recognize and thank each and every one of you for your commitment to our long-term study. We could not have come this far without your valuable participation. Cohort studies such as the MEC follow people over a long period of time to identify who gets cancer and other chronic diseases and who does not. Thanks to your participation, MEC is one the largest cohort studies in the world and the most unique because of its ethnic diversity.

### FOLLOW-UP HEALTH SURVEY

In 2018-2020, we mailed a four-page Follow-up Health Survey to MEC men and women who were 65-77 years old at that time. We are striving for a 100% response rate and are kindly reaching out to those of you who have not yet had the time to respond. We only can reach our goal with your completed survey. Our findings are based on information collected from you and you cannot be replaced. Your response is very valuable and we truly appreciate your help!

If you prefer to complete the survey over the phone, please call us at one of the numbers listed at the bottom of the page. One of our experienced Interviewers will be happy to talk to you.

We look forward to hearing from you! For those of you, who have already mailed in a completed survey, please accept our sincere thanks!



## MEC COVID-19 Survey

*Thank you to everyone who completed our COVID-19 online survey! We are grateful for your perseverance in completing the weekly and monthly online surveys and appreciate your unwavering support!*

In May 2020, we reached out to 104,000 MEC study members by sending an email or letter inviting them to participate in an online survey. This survey asked MEC members questions about symptoms of COVID-19 and possible repercussions of the pandemic on their well-being and daily life. The study started as a weekly survey and, after 9 weeks, turned into a monthly survey. It was important to keep in frequent contact during this fast evolving health crisis. A baseline paper survey was developed for the ~1,000 MEC study members who requested one. In April 2021, we decided to discontinue the survey but may resume it if another surge of cases occurs in the future.

A pandemic such as COVID-19 can create a great degree of fear, anxiety, and stress among us. It can affect people's livelihood and usual routine which can easily raise levels of loneliness and depression. Mental health plays a vital role in a person's physical well-being. Answers to questions in the survey will help MEC researchers understand the impact of COVID-19 on all aspects of someone's life.

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If you have recently moved or have a new phone number, please call us at  
1-800-786-3538 (Toll free in California) • (808) 586-2996 (Oahu) • 1-877-415-8323 (Toll free in Hawai'i)  
or visit our website at [www.uhcancercenter.org/mec](http://www.uhcancercenter.org/mec)

# Phthalates *and the* Risk of Breast Cancer

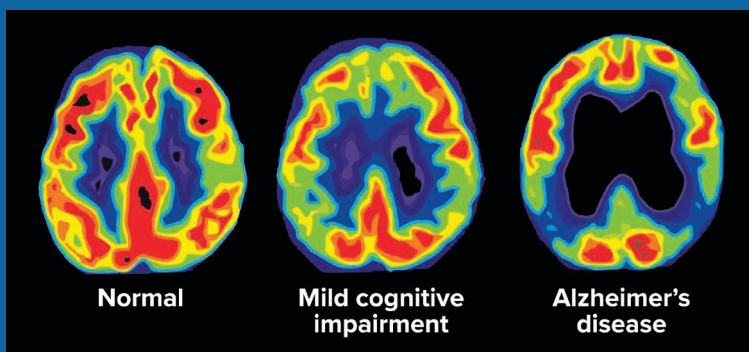
Phthalates are industrial chemicals that are present in numerous consumer products and solvents, as additives and plasticizers, and have been found to interfere with a wide range of hormonal processes. Because of the abundant use of plastics, exposure to phthalates is widespread across all ages, in men and women, and various racial/ethnic groups. However, the role of phthalates in relation to risk of breast cancer has been rarely studied because of the difficulty in measuring usual phthalate exposure. We used the unique biospecimen resources of the Multiethnic Cohort that included urine and other specimens from MEC participants since the late 1990s to study phthalates. We compared phthalate levels in the urine specimens of 1,032 women diagnosed with breast cancer and 1,032 women without breast cancer. Levels of ten phthalates and phthalic acid were measured in Dr. Adrian Franke's laboratory at the University of Hawai'i Cancer Center.



WE FOUND THAT WOMEN WITH ABOVE AVERAGE LEVELS OF THE SUM OF FOUR PHTHALATES THAT ARE TYPICALLY FOUND IN PERSONAL CARE PRODUCTS HAD A 30% HIGHER RISK OF HORMONE RECEPTOR POSITIVE BREAST CANCER, THE MAJOR SUBTYPE OF BREAST CANCER.

Among Native Hawaiian women, exposure to eight of the ten phthalates doubled the risk. This is the largest study to date on urinary phthalate exposures and risk of breast cancer. Our results suggest that exposure to phthalates may be associated with breast cancer risk, but the associations may differ by race/ethnicity and subtype of breast cancer. These differences may reflect differences in exposure patterns to phthalate containing products, as well as in the metabolism of these environmental chemicals.

# Alzheimer's Disease in MEC: Ethnic/Racial Differences in Occurrence



Source: Neurology Advisor

During the follow-up of the MEC study (1999-2014), we have identified over 17,000 cases of Alzheimer's disease and related dementia (ADRD) among MEC members. We found a large difference in occurrence of AD/ADRD across the main ethnic groups. Risk was highest among African Americans, followed closely by Native Hawaiians, then Latinos and non-Hispanic Whites, and lowest in Japanese Americans and Filipinos.

# Defining Added Sugars and Related Adverse Health Outcomes



The term “added sugars” refers to sugars added during the processing of foods. These include sugars from syrups, sucrose, brown sugar, agave, high fructose corn syrup, molasses, dextrose, and honey. There is consensus among government agencies, nutrition and health organizations, and nutrition researchers to limit intake of added sugar to promote health and prevent disease. The current recommendation is to consume less than 10% of all calories from added sugar sources per day. According to the Dietary Guidelines for Americans, 2020-2025, 61% of men and 57% of women in the USA eat more than the recommended amount of added sugars.

Among the MEC at baseline, only 28% of male and 27% of female participants ate more than 10% of energy from sugar as assessed through their diet questionnaires. The National Cancer Institute, identified the top sources of added sugars to be sweetened beverages, desserts and sweet snacks, coffee and tea with added sugar, candy and sugars, and breakfast cereals and bars. Some of the health consequences related to high added sugar consumption include hypertension, dental cavities, overweight, obesity, type 2 diabetes, cardiovascular disease, nonalcoholic fatty liver, dyslipidemia, and some cancers. To the right is a table of common foods with added-sugar and alternative suggestions you can incorporate into your diet to lower your added sugar intake.

Foods with added sugar	Examples of substitutes
Sugar-sweetened beverages (e.g., sodas)	100% fruit juice without added sugar
Sugar-sweetened yogurt	Sugar-free yogurt (add whole fruit)
Sugar in cooking	Spices and herbs for more flavor (cinnamon, cardamom, pure vanilla extract with no sugar)
Store bought salad dressing	Seek salad dressings with the least amount of sugar or make your own with vinegar, garlic, lemon, or pepper
Sugar-sweetened fruit drinks	100% fruit juice without added sugar
Sugar-sweetened cereals	Unsweetened whole grain cereals, add cinnamon or whole fruit
Baked goods (e.g., pastries, cakes, cookies)	Whole fruits

The risk was twice as high among African Americans as Japanese Americans. We also found that the genetic variant commonly found in AD/ADRD patients, known as *APOE e4*, occurs more frequently in Native Hawaiians and African Americans. With regard to known modifiable risk factors of AD/ADRD, we observed that disease risk was greater among individuals with diabetes or hypertension and lower among those who reported

more physical activity. Our findings are consistent with current public health guidelines emphasizing clinical management of chronic diseases and an active lifestyle to prevent and slow the progression of AD/ADRD.



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## MEC COVID-19 Survey | CONTINUED FROM PAGE 1

A total of 6,994 MEC study members completed the baseline survey. The average age of participants was 76. A preliminary analysis of these data showed that:

- 58% of participants reported having had to postpone their regular health care visits due to COVID-19.
- Among respondents who had cancer and were still receiving treatment, 9% had to cancel at least one treatment session due to COVID-19.
- 9% of participants reported having had to postpone cancer screening due to COVID-19.
- 82% of participants reported having had to change their lifestyle or daily activities in response to the COVID-19 pandemic.
- 21% of participants reported feeling down, depressed or hopeless early in the pandemic.
- 36% of participants reported being very or extremely concerned about themselves or someone in their family contracting COVID-19.
- 14% of participants reported being very or extremely concerned about a decline in their investments or retirement savings.
- 23% of participants reported that their household income decreased since the start of the pandemic.
- 12% of participants reported being very or extremely concerned about not being able to obtain food, supplies, or medicine early in the pandemic.
- 24% of participants reported that they had provided financial support to family members or friends due to the difficulties caused by the COVID-19 pandemic.

It is clear from these preliminary results that COVID-19 has a substantial negative effect on the general health, medical care, and financial and emotional well-being of MEC study members. It will take some time for the MEC researchers to analyze all of the follow-up survey results. Future research in the MEC will address the long-term consequences of the pandemic. As communities continue to be vaccinated and COVID-19 restrictions are starting to be lifted across the country, please continue to stay safe!

