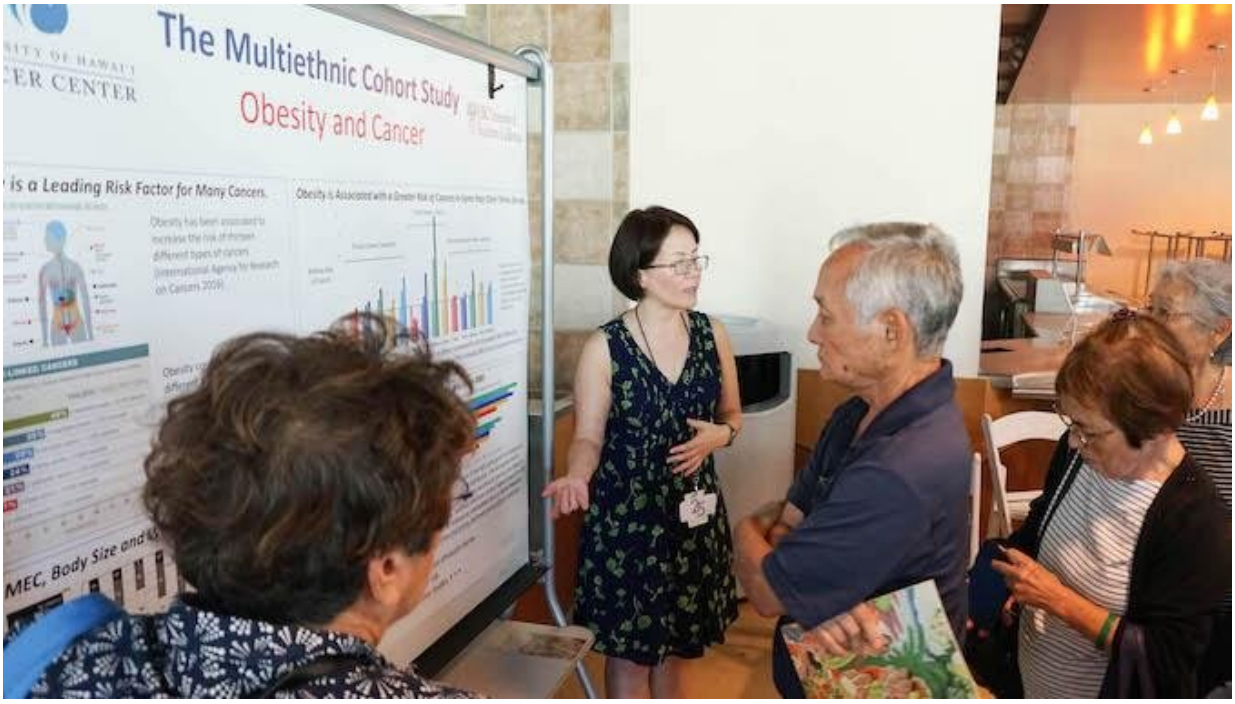
Multiethnic study informs cancer risk, diabetes reduction strategies

March 8 2021



Researcher Unhee Lim shares findings on obesity and cancer at MEC Study 25th Anniversary celebration. Credit: University of Hawaii at Manoa

A possible key to high incidence of type-2 diabetes among Japanese Americans has been uncovered using data from the most ethnically diverse and longstanding study in the world, the University of Hawai‘i Cancer Center's Multiethnic Cohort (MEC) Study. The development of type-2 diabetes has been linked to visceral adipose tissue (VAT) or intra-

abdominal fat, particularly in Japanese Americans with ectopic adipose tissue (EAT), excess fat in locations that are not commonly associated with fat storage. This recent finding is one of hundreds informed by data from the MEC since its launch in 1993.

A publication highlighted this new research, noting in many ethnic groups, obesity is often associated with type-2 diabetes. Conversely, Japanese Americans have relatively low body mass index levels but tend to have higher levels of VAT and EAT. This results in less testing than ethnic groups with higher obesity rates, which may be a factor in the high incidence among Japanese Americans.

Findings from this study can help to improve early detection and prevention strategies for type-2 diabetes. Diet and exercise can play an important role in preventing the onset of diabetes. Individuals should consult with their doctor for more information.

The MEC Study

The state of Hawai‘i is known for being one of the most ethnically diverse locations in the nation, making the UH Cancer Center a unique hub for cancer research. In order to best serve Hawai‘i's population, epidemiologists at the Cancer Research Center of Hawai‘i, now known as the UH Cancer Center, established the MEC Study in 1993. Over the years, the study has provided many advances in understanding differences in cancer risk that exist among racial/ethnic groups, as well as had a significant impact on identifying ways to prevent cancer.

The MEC Study is a large epidemiological study that has followed 215,000 residents of Hawai‘i and Los Angeles, aged 45 to 75 years since 1993, for the development of cancer and other chronic diseases. It includes men and women of five main ethnic groups: Japanese Americans, Native Hawaiians, African Americans, Latinos and Whites.

The study was initiated by Laurence Kolonel, at the Cancer Research Center of Hawai‘i, and Brian Henderson, at the University of Southern California Norris Comprehensive Cancer Center.

Ronald Cambra, a MEC Study participant since 1993, recently retired as UH Mānoa vice chancellor for undergraduate education after dedicating more than 40 years of service to the university. He is one of the many residents throughout Hawai‘i and Los Angeles who have made generous contributions of their time and sharing their personal and health information that have led to life-changing and life-saving cancer discoveries.

"I am extremely proud to be a member of the MEC," said Cambra. "Recently, I spent time reading some of the conclusions drawn from this work. I am more convinced than ever that every second of my time dedicated to this task has resulted in knowledge that will save lives and speed up our understanding and focus in finding the best approaches for battling each cancer and ultimately a cure."

More information: Gertraud Maskarinec et al. Body Fat Distribution, Glucose Metabolism, and Diabetes Status among Older Adults: The Multiethnic Cohort Adiposity Phenotype Study, *Journal of Epidemiology* (2021). DOI: 10.2188/jea.JE20200538

Provided by University of Hawaii at Manoa