

HAWAII JOURNAL WATCH

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Highlights of recent research from the University of Hawai'i and the Hawai'i State Department of Health

HOUSE ACCESSIBILITY LINKED WITH OLDER ADULTS' WELL-BEING

For older Korean adults, housing environment is associated with measures of health and well-being. Researchers including Seunghye Hong PhD, of the Thompson School of Social Work & Public Health, analyzed data from 2077 older adults with physical disabilities gathered from the Korean 2014 National Survey on Persons with Disabilities. Results showed that nearly a third of participants said their house lacked accessibility. House accessibility, but not house quality, was associated with lower perceived stress and lower odds of suicidal ideation. Living alone and having higher dependency on others for accomplishing activities of daily living were linked with higher odds of having depressive symptoms. Overall, the findings show that older adults' home ownership and perceptions of their house accessibility, rather than quality of their housing environment, are important determinants of health and well-being.

- Kim M, Woo B, Kim HJ, Yi E, Hong S. Examining Housing Environments and Health Status of Older Adults with Physical Disabilities in South Korea. *J Aging Soc Policy*. 2021;1-15. doi:10.1080/08959420.2020.1851350

MICRONESIAN WOMEN IN HAWAII HAVE HIGHER ODDS OF CESAREAN DELIVERY

Micronesian women in Hawaii may have higher odds of delivering by Cesarean section for reasons that involve a greater level of physician discretion, compared with white women. Researchers including Catherine Pirkle, PhD, of the Office of Public Health Studies, looked at data on 620 randomly selected Cesarean deliveries at one hospital in Hawaii. Micronesian women had four times greater odds of delivering by Cesarean for a subjective reason, compared with white women. Reasons that may be considered subjective include a slowing down of labor or certain fetal heart rate patterns; in these cases, some providers may prefer to perform a Cesarean while others would deliver the baby vaginally. Further research is needed on physician and patient factors that affect Cesarean rates, the researchers concluded.

- Delafield R, Elia J, Chang A, Kaneshiro B, Sentell T, Pirkle CM. A cross-sectional study examining differences in indication for Cesarean delivery by race/ethnicity. *Healthcare*. 2021;9(2):159. doi:10.3390/healthcare9020159

WHAT AUSTRALIAN ADULTS EAT FOR BREAKFAST

Dietary guidelines tend focus on specific food groups, but at meals, people select combinations of foods to eat. Researchers including Carol Boushey, PhD, MPH, RD, of the UH Cancer Center, examined nationally representative data collected from the Australian National Nutrition and Physical Activity Survey, 2011–2012. Results revealed five distinct breakfast food profiles: wholegrain cereals and milks, protein foods, mixed cereals and milks, and two profiles called breads and spreads that differed in their type of grain (wholegrain vs refined) and type of spreads (discretionary vs unsaturated fats only). Among both men and women, those with a

“wholegrain cereals and milks” profile had the lowest BMI, waist circumference, and overweight/obesity prevalence, compared to the other profiles. More research on how foods are combined into meals could inform targeted nutritional strategies aimed at improving diet quality.

- Leech RM, Boushey CJ, McNaughton SA. What do Australian adults eat for breakfast? A latent variable mixture modelling approach for understanding combinations of foods at eating occasions. *Int J Behav Nutr Phys Act*. 2021;18(1):46. doi:10.1186/s12966-021-01115-w

REPURPOSING METFORMIN AS AN ANTI-CANCER DRUG

Metformin — the first-choice drug for treating type 2 diabetes due to its well-established efficacy, safety, and relatively low cost — may also have anti-cancer effects. However, the drug has a poor ability to move through cell membranes, and its relatively low concentrations in tumors may be part of the reason it has so far shown a lack of efficacy in cancer clinical trials. Researchers including Abhijit Date, PhD, with the Daniel K. Inouye College of Pharmacy, synthesized and characterized several lipophilic salts of metformin. They found that one of those salts, metformin docusate, was able to permeate cell membranes and showed dramatically improved anticancer activity in experiments done with cancer cell lines. Future efforts will focus on developing lipid-based formulas that contain metformin docusate.

- Saeed HK, Sutar Y, Patel P, et al. Synthesis and characterization of lipophilic salts of metformin to improve its repurposing for cancer therapy. *ACS Omega*. 2021;6(4):2626-2637. Published 2021 Jan 25. doi:10.1021/acsomega.0c04779

IS HAWAII READY TO HELP PEOPLE WITH DISABILITIES IN TIMES OF DISASTER?

The government offices in Hawaii and the Pacific that are responsible for ensuring that people with disabilities (PWD) are included in plans for disaster management may be ill-equipped to meet the needs of PWD when disaster strikes. Researchers including Qi Zhi, MPH, of the School of Nursing & Dental Hygiene, surveyed professionals working in local Offices of Emergency Management (OEMs) in Federal Region 9, which includes Arizona, California, Hawaii, Nevada, Guam, American Samoa, and the Commonwealth of Northern Mariana Islands. Results showed that 63% of OEMs had written disaster plans that addressed the needs of PWD, while 41% included detailed operating procedures that specifically stated how the needs of PWD would be addressed. Most OEMs did not include the number of PWD in their regions in their plans. About one third reported staff had been trained on identifying needs of PWD, and 26% reported training on the requirements under the Americans with Disabilities Act. The findings show that emergency planning gaps exist related to PWD.

- Gershon RR, Muska MA, Zhi Q, Kraus LE. Are local offices of emergency management prepared for people with disabilities? Results from the FEMA Region 9 Survey. *J Emerg Manag*. 2021;19(1):7-20. doi:10.5055/jem.0506