

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

COMMON CARDIAC ARRHYTHMIA AMONG OLDER JAPANESE MEN IN HAWAII SHOWS PARADOXICAL RELATIONSHIP

High cholesterol levels are a risk factor for heart disease. However, older Japanese men in Hawai'i may present an example of the "dyslipidemia paradox" because those with higher cholesterol show a lower rate of atrial fibrillation/atrial flutter (AF), a common cardiac arrhythmia. Researchers including Tagayasu Anzai MD, PhD, of the Thompson School of Social Work & Public Health, conducted a cross-sectional analysis of cholesterol levels in 3741 participants in their 70s and 80s in the ongoing Kuakini Honolulu Heart Program. Results showed that 4.5% of participants had AF, but among participants older than 75, those whose levels of low-density lipoprotein cholesterol (LDL) or total cholesterol were in the lowest quartile of all participants had higher rates of AF than those with higher LDL or total cholesterol levels. More research is needed to better understand the paradox.

- Anzai T, Grandinetti A, Katz AR, Hurwitz EL, Wu YY, Masaki K. Paradoxical association between atrial fibrillation/flutter and high cholesterol over age 75 years: The Kuakini Honolulu Heart Program and Honolulu-Asia Aging Study. *J Electrocardiol.* 2020;65:37-44. doi:10.1016/j.jelectrocard.2020.12.008

PHARMACY STUDENTS IN HAWAII BENEFIT FROM EDUCATIONAL INSTAGRAM POSTS

Instagram posts may help pharmacy students in Hawai'i increase their knowledge of medications. Researchers led by Jarred Prudencio, PharmD, of the Daniel K. Inouye College of Pharmacy, created an Instagram account and invited doctoral pharmacy students who were starting an ambulatory care rotation in a family medicine clinic to follow it. The faculty posted clinical pearls three times weekly during the semester; 32 students choose to follow the account while 37 did not. The students who followed the account improved their scores on a 30-question knowledge test by significantly more than students who did not (15% vs 3.1%). The researchers concluded that social media platforms offer a highly accessible way to improve pharmacy student learning.

- Prudencio J, Wongwiwatthanakut S, Lozano A, Xu Y. Instagram as a tool to enhance pharmacy student learning of ambulatory care pharmacy. *Curr Pharm Teach Learn.* 2021;13(2):134-138. doi:10.1016/j.cptl.2020.09.007

CYANOBACTERIA FOUND IN SALIVA OF ARECA NUT CHEWERS

Chewing areca nuts is common in some parts of the Pacific and has been linked to increased oral cancer risk. New findings show that cyanobacteria and their toxic metabolites are found in the nuts and other parts of the plants, as well as in the saliva of chewers. Researchers led by Brenda Y. Hernandez, PhD, MPH, of the UH Cancer Center, analyzed samples from husks, nuts, and leaves of the *Areca catechu* plant, and leaves of the *Piper betle*, which are sometimes chewed with areca nuts. They also analyzed saliva samples from 122 adults on Guam, including 64 current betel nut chewers, 37 former chewers, and 21 people with no history of betel nut use. Results revealed cyanobacteria DNA in all plant samples and all saliva samples, but at significantly higher levels in the current chewers compared with those who did not chew the nuts. Cyanotoxins were also found in both plant and saliva samples. More research is needed to understand the relationship between cyanobacteria and cancer development.

- Hernandez BY, Zhu X, Sotto P, Paulino Y. Oral exposure to environmental cyanobacteria toxins: Implications for cancer risk. *Environ Int.* 2021;148:106381. doi:10.1016/j.envint.2021.106381

HEALTH LITERACY AMONG FORMER SOVIET UNION IMMIGRANTS

International migrants comprise 3.5% of the world's population. Former Soviet Union (FSU) immigrants are the fourth-largest group of migrants in the world, with substantial diasporas in the US, Germany, and Israel. An international multidisciplinary research team led by Uliana Kostareva BSN, RN, of the School of Nursing and Dental Hygiene, conducted an integrative literature review in 4 languages on health literacy of FSU immigrants. Only articles from Israel measured health literacy of FSU immigrants; it was lower than the health literacy of the general population. The majority of articles focused on older FSU immigrants, and all articles stressed the need for translated and culturally relevant health information. Despite clear needs, FSU immigrants are underrepresented in health literacy research. The review provided a model of a comprehensive multilingual search.

- Kostareva U, Albright CL, Berens EM, Polansky P, Kadish DE, Ivanov LL, Sentell TL. A multilingual integrative review of health literacy in Former Soviet Union, Russian-speaking immigrants. *Int J Environ Res Public Health.* 2021;18(2):657. doi:10.3390/ijerph18020657