HAWAIʻI JOURNAL WATCH

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Highlights of recent research from the University of Hawaiʻi and the Hawaiʻi State Department of Health

Cancer in the Pacific

To improve cancer outcomes in the Pacific islands, a new paper calls for greater collaboration across the region. About 16200 new cancer cases and 9800 cancer deaths are reported yearly in the region. The people of this region face a "double burden" of having cancers such as cervical cancer that are linked to poverty and infections, as well as cancers associated with obesity and tobacco use, such as lung cancer. Researchers, including Neal Palafox MD, MPH, of the UH Cancer Center, examined cancer control in the Pacific and noted that few islands have comprehensive cancer control plans. In addition, due to a lack of health infrastructure, it is difficult to establish population-based screening programs for cervical cancer, colon cancer, and oral cancers. The region has seen some improvements, such as decreases in smoking and in hepatitis B prevalence, and improved survival of children with cancer. But access to diagnostic tests and surgical interventions are lacking in many places. According to the paper (PMID: 31395476) published in *Lancet Oncology*, the countries of the Pacific are greatly resource-constrained, but their close relationships provide opportunity for collaborative approaches to controlling cancer.

Homelessness and Social Isolation Can Be Tracked in Hospital Records

The social factors of patients' lives such as living alone and homelessness can be documented in electronic health records (EHRs) and used in predictive models of acute care outcomes, new research shows. Researchers led by Emiline LaWall PhD, as part of her dissertation at the Office of Public Health Studies, examined EHR data collected on 21274 patients at 2 Honolulu hospitals from May 2015 through April 2017. Results showed that 4.2% of hospitalizations had a 30-day potentially preventable readmission (PPR), and in the multivariable model, neither living alone nor homelessness predicted PPR. However, the use of an assistive device and a high number of co-morbid conditions predicted PPR. The researchers concluded that further research is needed to investigate methods of collecting and applying data on social factors in hospital EHRs as these are complex, multidimensional factors. The paper (PMID: 30730829) is published in *Preventing Chronic Disease*.

Campus-Level Factors Linked to Sexual Assault Rates

Research on sexual assault and intimate partner violence (IPV) on college campuses is often focused on finding risk and protective factors at the student level, but a new study looks at campus-level factors. Researchers led by Carrie Moylan PhD, of Michigan State University and including Rebecca L. Stotzer PhD, of the Myron B. Thompson School of Social Work, examined data gathered from 2011 to 2015 from students on 474 US campuses that participated in the National College Health Assessment survey. In the researchers' full model of the data, the strongest campus-level predictors of higher sexual assault rates were higher levels of binge drinking and higher percentages of students who were non-heterosexual. Students who are non-heterosexual tend to experience higher rates of dating violence and sexual assault, the researchers noted. Other campus-level predictors were a lower percentage of students who received educational information about sexual and relationship violence, and a higher percentage of students who reported discrimination. For campus IPV rates, the strongest predictor was students' average number of sexual partners as a measure of "hook up culture" at the school. Schools with older students and those with higher percentages of students living on campus had lower IPV rates. The findings show that campus and community factors play a crucial role in risk, the researchers concluded. The paper is published in the *Journal of the Society for Social Work and Research*.

Nursing Researchers Debate the Ethics of Participation in Executions

In an opinion paper, senior nurses from several countries offer individual responses to a landmark 2003 paper that discussed the ethics of nurse participation in executions. Ellen Ben-Sefer PhD, RN, of the School of Nursing and Dental Hygiene, co-authored the new paper and noted that television and social media have increased the exposure of the global community to executions. Several opinions gathered in the new paper held the view that nurses are caregivers who may offer support and comfort to prisoners at the end of life and/or may have an ethical duty to provide prisoners the same care provided to any patient at the end of life. Another perspective that emerged was that the ethical codes of nursing organizations hold that nurses should never actively participate in the taking of life, and that it is wrong to use one's nursing skills to cause harm. The aim of the article was to generate debate. The authors noted that the article is not representative research. Rather, the range of opinions offered suggests a need for further discussion. The paper (PMID: 30407143) is published in *Nursing Ethics*.

New CEPI Method for Fast fMRI

Functional magnetic resonance imaging (fMRI) is an imaging technique widely used in neurology and neuropsychology to study and map brain activity. In fMRI experiments a series of hundreds of brain images are obtained to track fluctuations in the brain. Most fMRI methods are based on a rapid sampling strategy called echo planar imaging (EPI) which enables image acquisitions at high speed. In a recent publication, researchers including Christoph Rettenmeier PhD, of the John A. Burns School of Medicine describe a new EPI method referred to as circular EPI (CEPI) which is a more efficient way to acquire fMRI data. The researchers wrote that this new CEPI method provides better maps of brain activity possibly leading to more accurate studies and diagnoses of disease. Besides fMRI, the CEPI method has great potential for other types of fast MRI applications, such as diffusion tensor imaging (DTI). The article (PMID: 30273963) is published in *Magnetic Resonance in Medicine*.