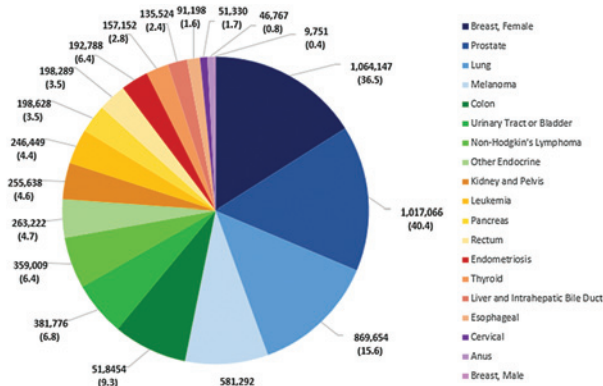


# CANCER EPIDEMIOLOGY, BIOMARKERS & PREVENTION HIGHLIGHTS

## Selected Articles from This Issue

### New-onset Cancer Cases in FDA's Sentinel System: A Large Distributed System of US Electronic Healthcare Data



Haug *et al.* | Page 1890

Evaluations of cancer etiology and safety and effectiveness of cancer treatments are predicated on large numbers of patients with sufficient baseline and follow-up data. To assess feasibility of FDA's Sentinel System's electronic healthcare data for surveillance of malignancy onset and examination of product safety, this study by Haug and colleagues examined patterns of enrollment surrounding new-onset cancers. The study found that the FDA Sentinel System's electronic healthcare data may be useful for characterizing relatively short latency cancer risk, examining cancer drug utilization and safety post diagnosis, and conducting surveillance for acute adverse events among patients with cancers. As a national distributed system with electronic health data, the Sentinel system provides opportunity for rapid pharmacoepidemiologic assessments relevant in oncology.

### Pediatric Cancer by Race, Ethnicity and Region in the United States

Rees *et al.* | Page 1896

This study sought to clarify and extend a 2018 descriptive study by the Centers for Disease Control and Prevention that reported high pediatric cancer incidence in New Hampshire. Statistically comparing national, regional and state data, this new study by Rees and colleagues confirms that the Northeast has the highest pediatric cancer incidence in the country, and that no single state within the Northeast is a statistical outlier. These findings emphasize the need for partnerships between northeastern states' health departments and epidemiologists, to understand the causes of the region's high burden of pediatric cancer, and to identify possible solutions.

doi: 10.1158/1055-9965.EPI-31-10-HI

### The Influence of Medical Comorbidities on Survival Disparities in a Multi-ethnic Group of Patients with *De novo* Metastatic Breast Cancer

Wallner *et al.* | Page 1935

Prior studies suggest there are persistent racial/ethnic disparities in overall and breast cancer mortality among women with metastatic disease, yet to what extent comorbidity burden contributes to these disparities is unclear. In this retrospective cohort study of 995 women newly diagnosed with metastatic breast cancer in a large diverse, integrated healthcare system, Wallner and colleagues found that medical comorbidities such as diabetes, and hypertension were common. They also found comorbidities were associated with an increased risk of both overall and breast cancer mortality and may influence disparities in these outcomes among women with metastatic breast cancer. Optimizing the management of comorbidities may therefore help to reduce these disparities and improve mortality outcomes in women with metastatic breast cancer.

### Circulating Isovalerylcarnitine and Lung Cancer Risk: Evidence from Mendelian Randomization and Pre-Diagnostic Blood Measurements

Smith-Byrne *et al.* | Page 1966

Lung cancer is the leading cause of cancer-related death. Smith-Byrne and colleagues used two complementary approaches to triangulate the role of circulating isovalerylcarnitine (IVC) in lung cancer aetiology - one based on genetic measurements of IVC in large genome-wide associations studies and one based on direct measurements of IVC in pre-diagnostic samples from population cohorts. The authors observed a protective effect for IVC that was independent of tobacco exposure (ORlog10 = 0.43, 95% CI: 0.29-0.63). Circulating IVC is modifiable through diet and warrants further investigation for a potential role in lung cancer prevention.