Welcome!

Overview

An estimated 33.9 million people globally currently have Alzheimer’s disease or other dementias. This number is expected to grow dramatically over the coming years due to an aging population and an increase in life expectancy. While currently there are no effective treatments for the prevention of Alzheimer’s disease and other dementias, epidemiological investigations have been instrumental in identifying promising strategies that may help prevent or delay cognitive decline and dementia in old age. It has been estimated that up to half of dementia cases may result from several potentially modifiable risk factors, including cardiovascular risk factors, psychosocial factors, and health behaviors, and that targeting these risk factors could lead to significant reductions in the number of dementia cases. (Barnes, DE and Yaffe K, 2011) Research into these and other factors associated with cognitive outcomes in old age can help provide insights into mechanisms contributing to cognitive decline and inform prevention strategies and treatment options to optimize cognitive aging.

Our Research

The Kristine Yaffe Lab focuses on the epidemiology of cognitive function and dementia in aging populations throughout the United States. The lab aims to improve the outlook of cognitive aging by conducting research focused on identifying risk factors for cognitive impairment, understanding the mechanisms that contribute to cognitive decline, and
determining effective strategies to prevent and treat cognitive disorders in older adults. This is particularly important in a population where the lifetime risk of dementia ranges from 20% for men to 33% for women, with even higher lifetime risks for milder forms of cognitive impairment.

Studies from the lab have led to numerous publications that have increased our understanding of cognitive aging and decline. Results have shown an association between several health and lifestyle related factors and cognitive function, including associations with cardiovascular and metabolic risk factors, kidney function, physical activity, sleep disturbances, depression, and neuropsychological disorders including post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). Some of the biomarkers that have been studied include inflammatory markers, plasma beta amyloid, markers of cardiovascular health, measures of oxidative stress, structural brain MRI measures, and genetic markers of risk. More information regarding these and other studies can be found on the Research and Publication pages.