

Correcting Bias from Covariate-Dependent Censoring in Survival Disparity Decomposition*Sabrina Zhang, Westat*

Research on racial and socioeconomic health disparities (HD) in time-to-event outcomes is crucial to public health. Yet, existing HD decomposition methods can yield biased estimates when censoring, such as dropout or competing risks, depends on covariates, including demographic, socioeconomic, or behavioral characteristics. Widely used Peters-Belson approaches combine Kaplan-Meier estimation with Cox regression, but these methods rely on different censoring assumptions that may not hold under covariate-dependent censoring. We propose a novel decomposition method that integrates propensity score (PS) methodology with inverse probability of censoring weighting (IPCW). The PS component balances covariates across groups to estimate counterfactual survival without specifying an outcome model, while IPCW corrects for dependent censoring by reweighting uncensored individuals to represent those who were censored. Within a semiparametric framework, the proposed IPCW-PS approach reduces bias compared with conventional Kaplan-Meier/Cox methods. Simulation studies demonstrate substantial bias reduction under dependent censoring. We apply the method to NielsenIQ Consumer Panel data to examine smoking cessation disparities between White and Black households and find that smoke-free laws explain a meaningful portion of the observed disparity.

End-of-Life Healthcare Utilization among Medicare Beneficiaries with Parkinson's Disease- Alzheimer's Disease-Related Dementia at USA Academic Movement Disorders Centers: A 2019 Pre-Intervention Assessment*Adriana Perez, The University of Texas Health Science Center at Houston*

Evaluating end-of-life (EOL) care for hospitalized Medicare decedents with Parkinson's Disease- Alzheimer's Disease-Related Dementia (PD-ADRD), defined here as the last 90 days of life in 2019, poses statistical challenges. The four primary outcomes were: (i) non-elective inpatient hospitalization, (ii) intensive care unit (ICU) admission, (iii) in-hospital death, or (iv) receiving palliative care consultation. Beneficiaries first visited either a comparison Academic Movement Disorders Center (AMDC) or an AMDC intervention-scheduled center. The adjusted odds ratios (AOR) for the simultaneous effect of visiting AMDCs, controlling for sex, race, age, Social Vulnerability Index (SVI), and the cluster AMDC effect, are reported. The sample sizes were 1362, 1344, 1230, and 1100 for each outcome, respectively. There were no statistically significant differences in (i) non-elective inpatient hospitalization (AOR=0.41; 95% CI 0.12–1.36), (ii) ICU admission (AOR=0.80; 95% CI 0.14–4.68), (iii) in-hospital death (AOR=0.68; 95% CI 0.07–7.23) and (iv) receiving palliative care consultation (AOR=0.50; 95% CI 0.05–4.93) between beneficiaries who first visited an AMDC intervention-scheduled center and those who first visited an AMDC comparison center. How AMDC centers and socio-demographic characteristics influence PD-ADRD outcomes 90 days before death helps to inform future program design and policy recommendations aimed at optimizing care for PD-ADRD Medicare beneficiaries.

Physical Activity Patterns by Age Among U.S. Adults: Associations with Chronic Conditions, Health Behaviors, and Health-Related Quality of Life*Gloria Oppong, University of Tennessee at Chattanooga*

Introduction: Physical activity (PA) is essential for healthy aging, yet PA mode, frequency, duration, and intensity vary across adulthood and relate to health-related quality of life (HRQOL), chronic conditions, and health behaviors. This study examined age-stratified PA patterns and their associations with selected health indicators.

Methods: Data from 433,323 adults in the 2023 Behavioral Risk Factor Surveillance System (BRFSS) were analyzed in this cross-sectional study. Participants were grouped as younger (18–44 years), middle-aged (45–64 years), and older (≥65 years). Logistic regression estimated odds ratios (ORs, 95% CI) for not meeting aerobic and muscle-strengthening Physical Activity Guidelines (PAGA), adjusting for sociodemographic and health-related covariates.

Results: Overall, 75.3% reported PA in the past month; 61.9% met aerobic PAGA and 40.1% met muscle-strengthening PAGA. Walking increased with age (44.4%, 58.3%, and 59.4%), while gardening and household chores increased and weightlifting and running/jogging declined. Obesity, smoking, diabetes, asthma, and female sex were associated with higher odds of not meeting aerobic PAGA, particularly among older adults.

Conclusion: PA patterns shift across adulthood, supporting age-tailored interventions promoting aerobic and muscle-strengthening activity, especially among older adults with multiple risk factors.

