

Impact of Medicaid Expansion under the Patient Protection and Affordable Care Act on Lung Cancer Care in the US

Objectives. Healthcare disparities affect access to care and outcomes in lung cancer patients. The Affordable Care Act's (ACA) Medicaid expansion was implemented in 2014 with the aim of improving access to healthcare. We sought to determine the impact of Medicaid expansion on access to care and outcomes for patients with lung cancer.

Methods. This retrospective cohort study was performed using the National Cancer Database. All adults (ages 40 – 64 years) diagnosed with non-small cell lung cancer (NSCLC) between 2009 and 2019 were included. The study population was divided into a pre- (A: 2009 – 2011) and post-expansion era (B: 2015 – 2019). The exposure of interest was residence in a state that expanded Medicaid in 2014 – Medicaid expansion (ME) vs. Non-expansion (NE). Outcomes were insurance coverage, lung cancer clinical stage, treatment facility, and survival. Survival analysis and multivariable Cox regression were used to elucidate associations. A p-value <0.05 was deemed statistically significant.

Results. A total of 161,713 patients were included (era A – 36%, and era B – 64%). The mean age was 57 years, and the majority of patients were Caucasian (80%), had no comorbidities (62%) and adenocarcinoma as underlying histology (58%). There was no significant age difference between patients in the ME and NE groups in eras A and B ($p > 0.05$ for both). From era A to B, insurance coverage increased from 90.1% to 96.7% (+6.6%), clinical stage I disease increased from 20.6% to 27.3% (+6.7%), and treatment at an academic facility increased from 39.3% to 43.9% (+4.6) in the ME group. For the NE group, the trends were 84.6% to 88.3% (+3.7%), 18.9% to 23.4% (+4.5%), and 27.8% to 28.6% (+0.8%), respectively. On univariate analysis, ME was associated with a decreased risk of mortality when compared to NE in eras A and B ($p < 0.05$ for both). Following risk adjustment, ME remained an independent predictor for survival only in era B (HR for mortality: 0.96, CI: 0.94 – 0.98; $p = 0.0009$).

Conclusions. The ACA ME is associated with improved insurance coverage and more frequent lung cancer treatment at academic facilities. A higher proportion of early-stage NSCLC and better survival are observed in states that implemented ME. Ongoing monitoring is necessary to confirm the program's long-term impact on access to care and survival for NSCLC.

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Figure 1. Kaplan-Meier survival estimates stratified by Medicaid expansion status in Era B: 2015 – 2019
(Log rank <0.001)

