

Background

Goal: Estimate transition rates between single, dual, and poly tobacco use over time to help identify areas for policy intervention. Compare between sex, race/ethnicity, and age groups.

Data: Waves 1-4 of the Population Assessment of Tobacco and Health (PATH) study, 2013-2017

Methods

Transition rates between tobacco use categories in adults were estimated under a multistate Markov model framework accounting for complex survey weights. The use categories (defined as current everyday or someday use) were:

- Never use
- Non-current use (30 day abstinence)
- Single use of cigarettes, e-cigarettes, other combustibles, or smokeless tobacco (SLT)
- Dual use with cigarettes
- Poly-use with cigarettes
- Poly-use without cigarettes (including dual-use)

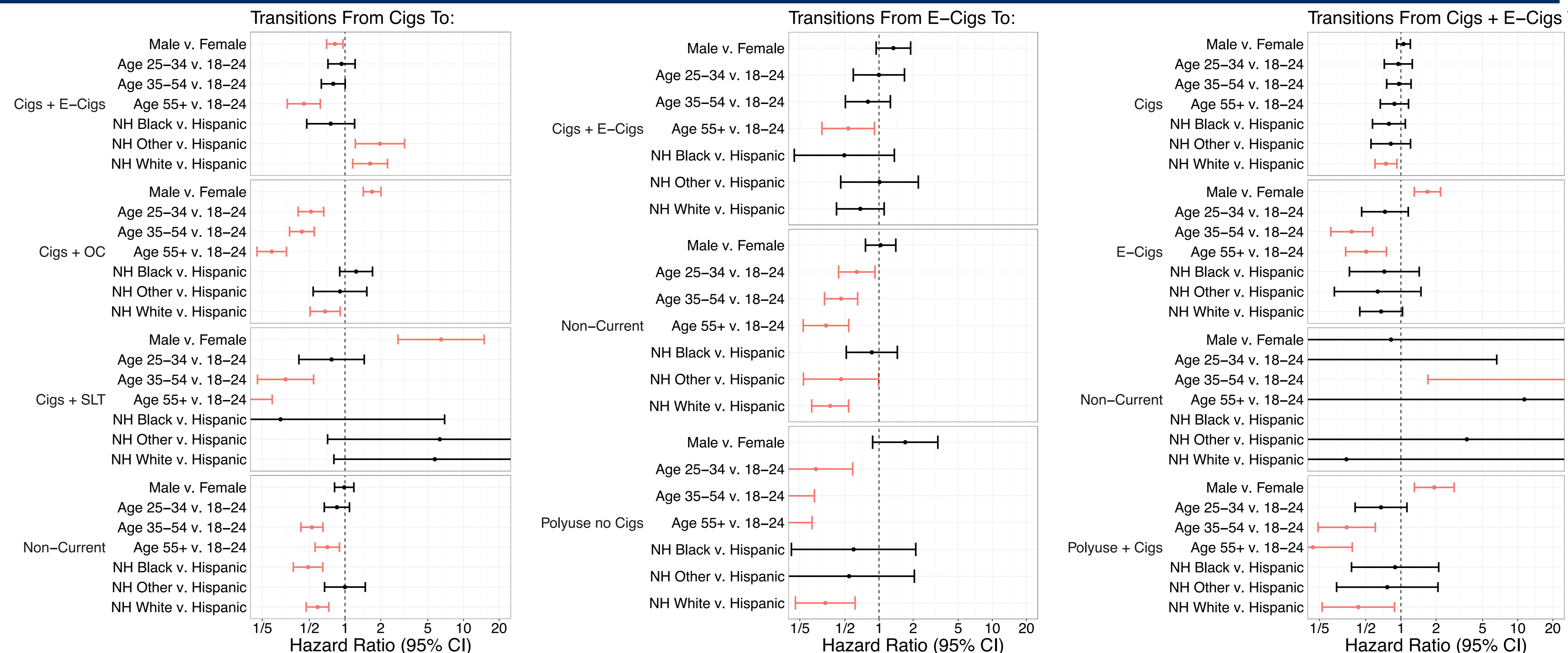
Instantaneous two-step transitions (e.g. from never use to dual use) were disallowed from the model, except for into non-current use. Included 24,336 adults who had data for at least two waves.

Hazard ratios of transition rates were estimated for age, sex, and race/ethnicity

Key Findings

- Transitions between single, dual, and polytobacco use differ by age, sex, and race ethnicity.
- May influence the impact of current and future tobacco control efforts.

Results



Results

- Younger age was associated with more transient tobacco use behavior:
- Compared to female participants, males had:
 - Higher hazards of transitioning from exclusive cigarette use to dual cigarette and OC or SLT use, but lower hazards of transitioning to dual cigarette and e-cigarette use.
 - Higher hazards of transitioning from dual cigarette and e-cigarette use to exclusive e-cigarette or poly-use with cigarettes.
- Compared to White participants, Black participants had:
 - Lower hazards of transitioning from exclusive cigarette use to either non-current use or any dual use state
 - Higher hazards of transitioning from exclusive e-cigarette or SLT use to non-current use