

Racial and place-based differences in smoking attributable risk for lung cancer

Introduction

- Racial differences in lung cancer incidence and smoking patterns are well established
- Few studies have assessed racial differences in smoking attributable risk for lung cancer

Purpose

- To estimate attributable risk for smoking in lung cancer among blacks and whites in a large prospective cohort.

Methods

- Study population:** Prospective cohort of 41,038 blacks and 18,062 whites aged 40-79 enrolled in the Southern Community Cohort Study (SCCS) from 2002-2009. Followed for up to 15 years. Participants recruited primarily from community health centers throughout 12 Southern states.

- Case identification:** Lung cancer cases identified via linkage with state cancer registries and the National Death Index

- Analysis:** Estimated population attributable fraction (PAF) for smoking at baseline in lung cancer

Figure 1. Recruitment sites

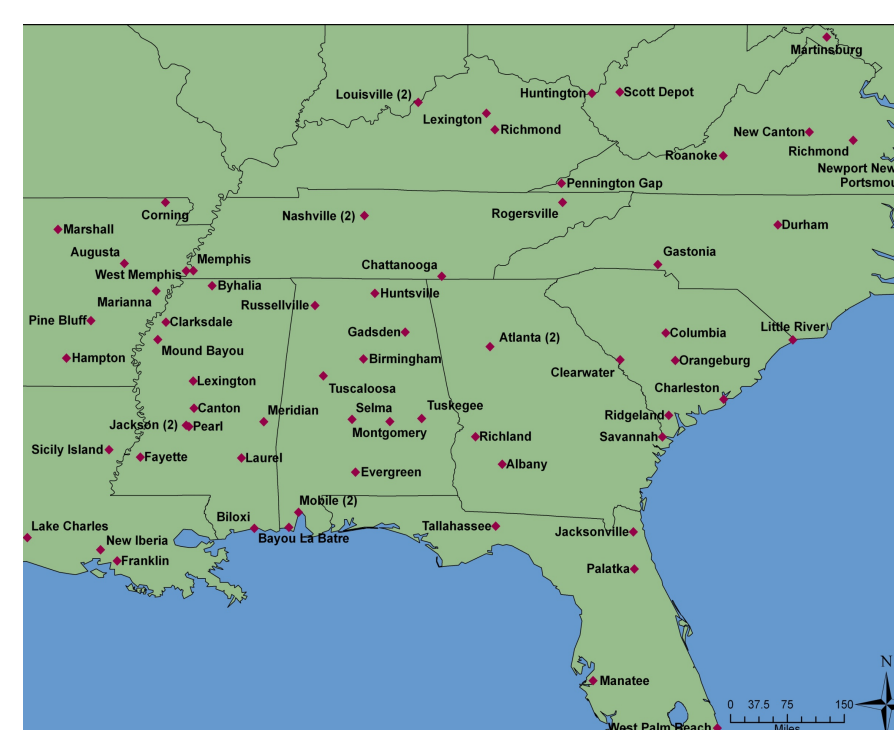


Table 1. Descriptive characteristics of SCCS participants, N=59,100

| Characteristic | N (%) |
|-------------------------------|--------------|
| Black race | 41,038 (69%) |
| Female sex | 35,219 (60%) |
| High school education or less | 36,712 (62%) |
| Current smoker | 24,480 (41%) |
| Former smoker | 12,691 (21%) |
| Rural dweller | 14,007 (24%) |

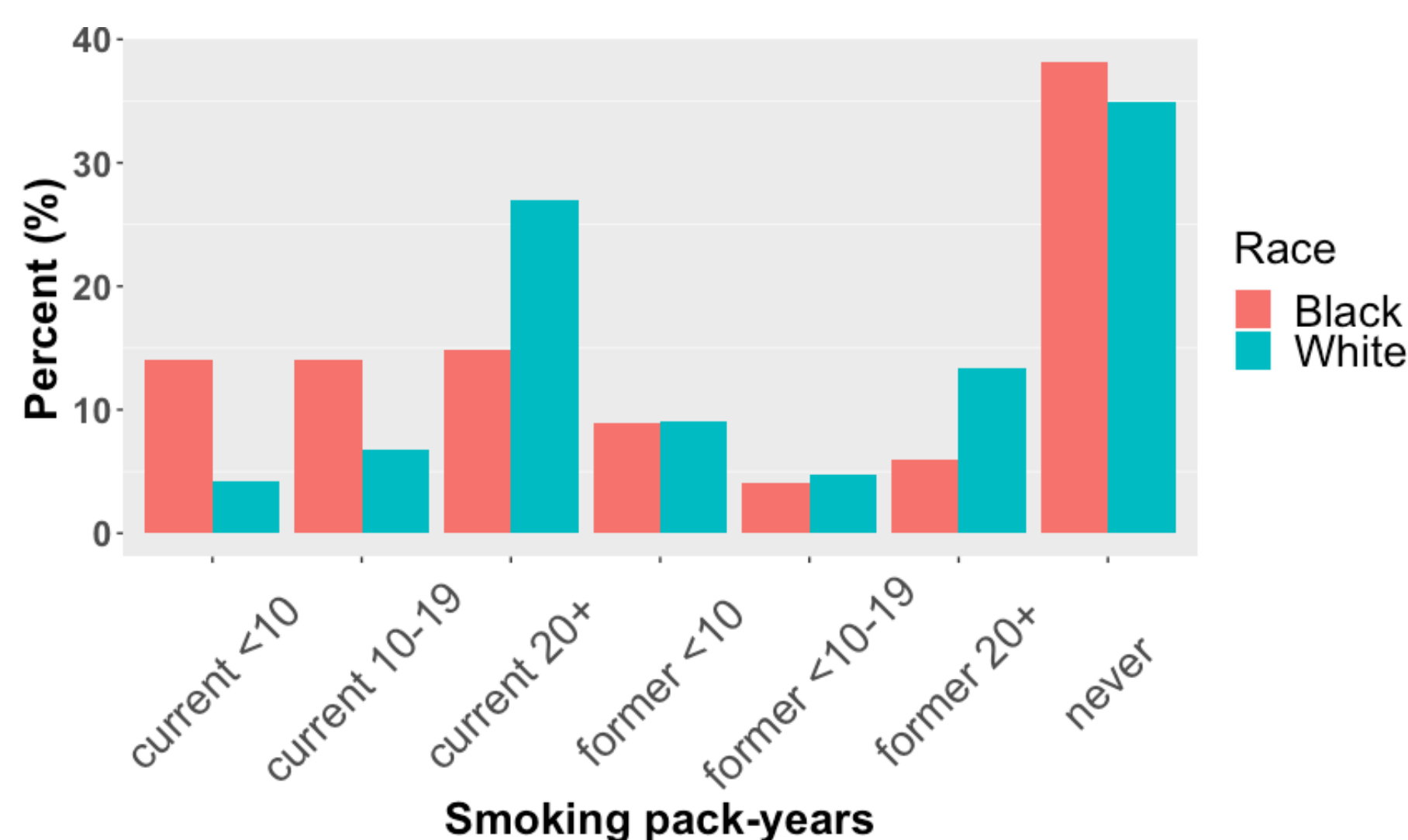


Figure 2. Smoking packyears by race and smoking status

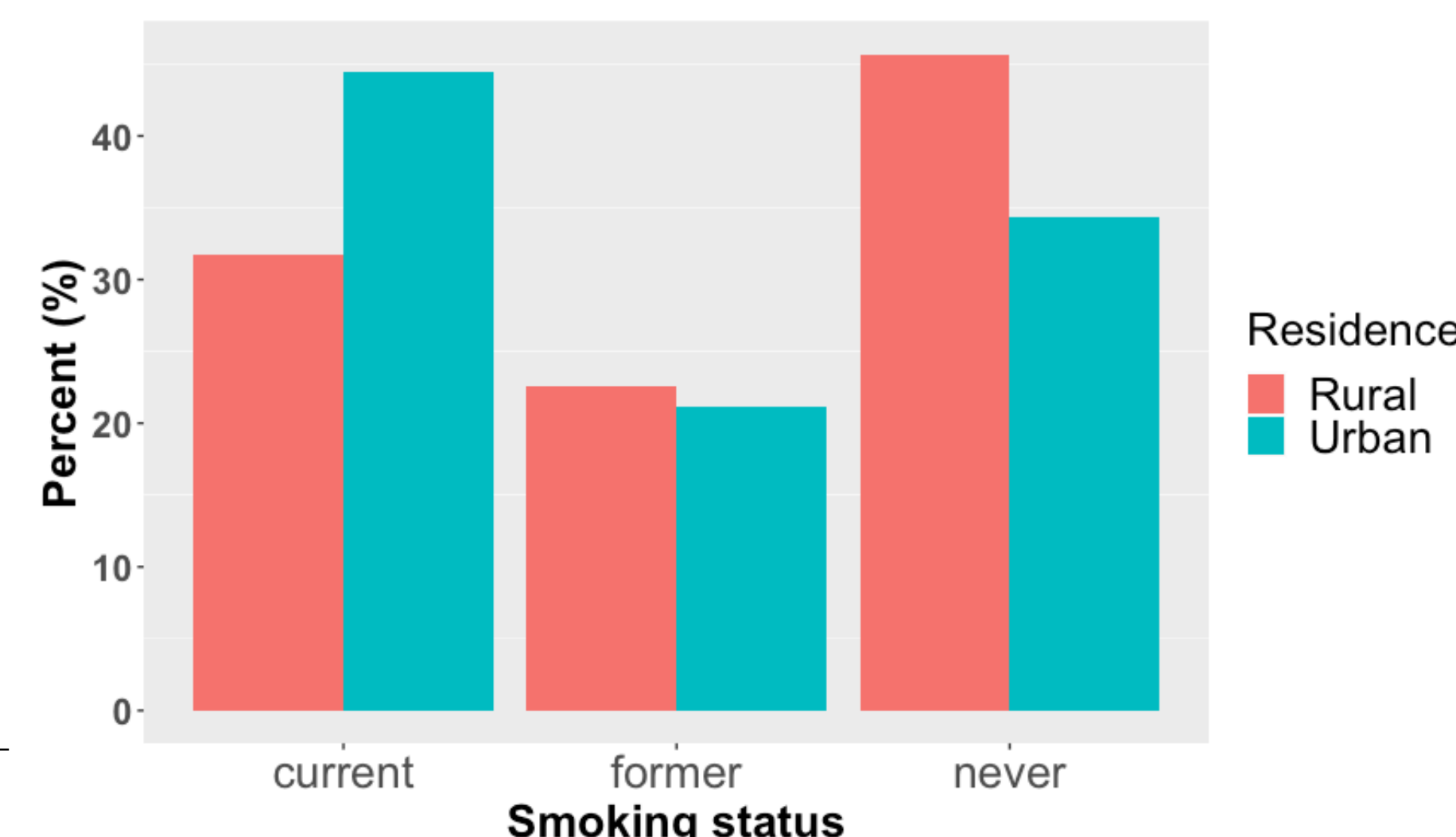


Figure 3. Smoking status by rural-urban residence

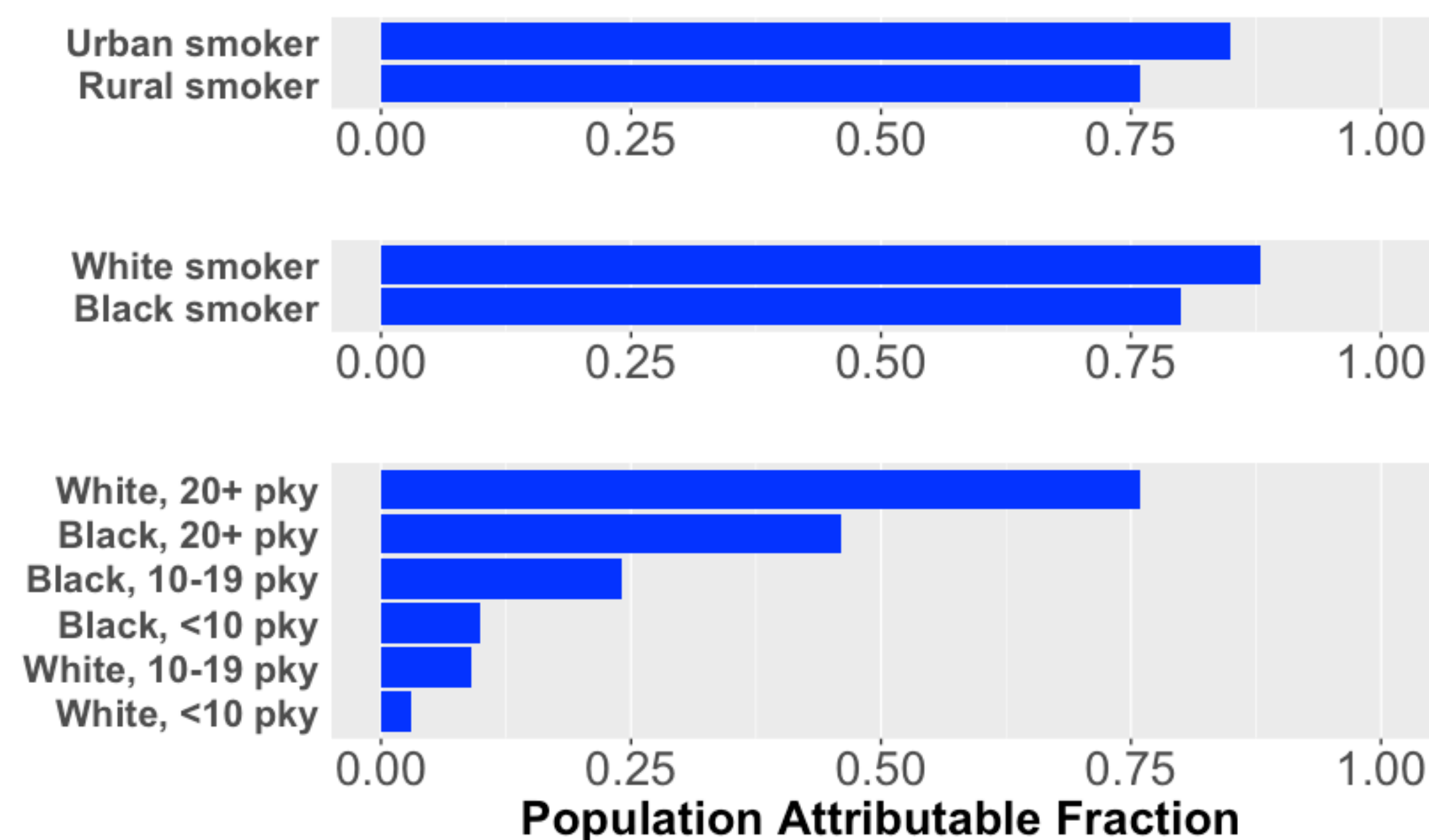


Figure 4. Smoking PAF by location and race

Conclusions

- PAF for smoking varies by race and geographic residence
- Urban residents had higher PAF for smoking than rural residents
- Higher PAF in whites mainly due to high prevalence of 20+ pack-year smokers
- PAF provide a tool to prioritize programs or policies aimed at reducing modifiable risk factors such as smoking

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