



SRNT 2026

BALTIMORE, MD
MARCH 4-7

Relative mortality by smoking in the American
Indian and Alaska Native population

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Center for the
Assessment of Tobacco
Regulations
[CA_sTO_R]



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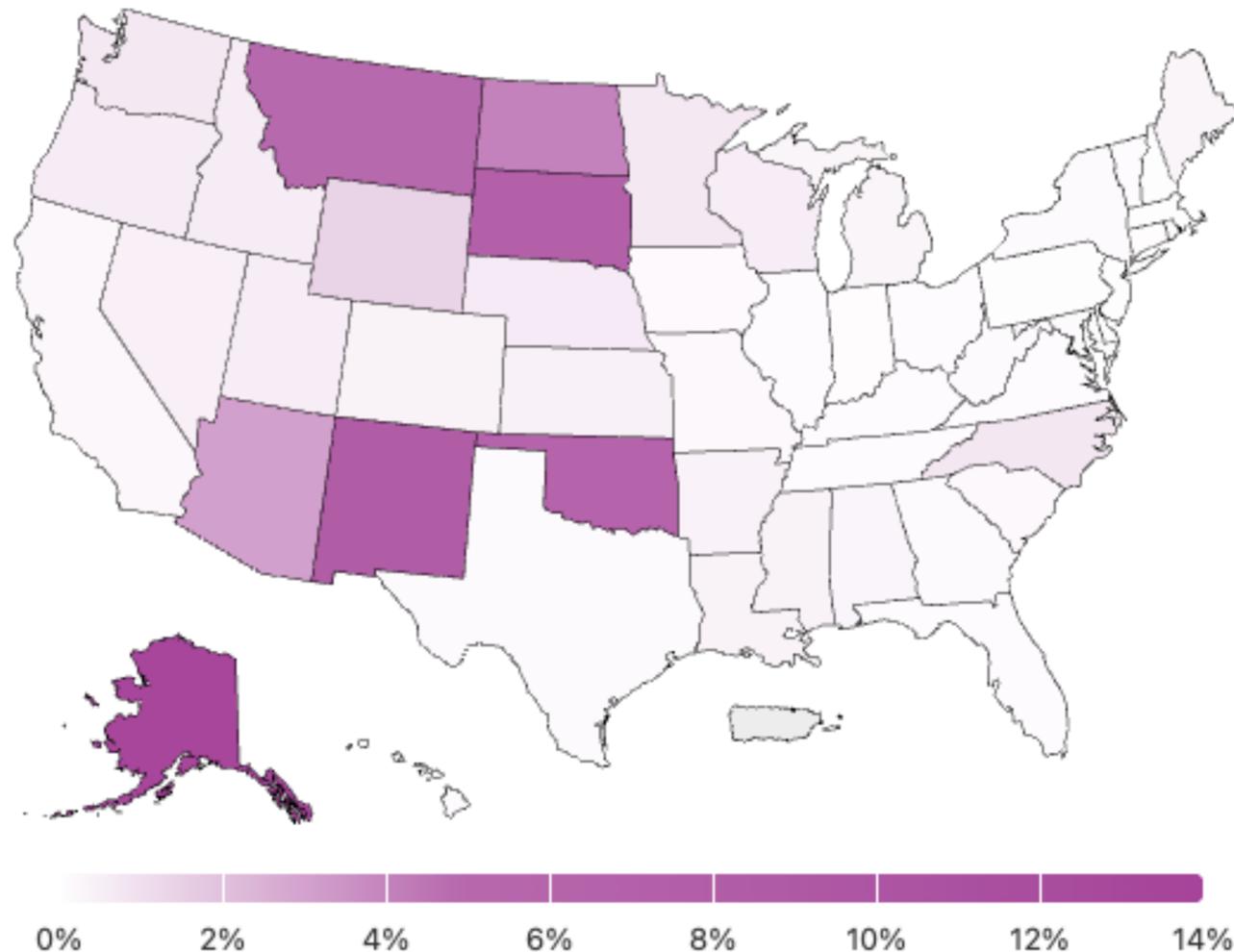
	Tobacco industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma industry
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Land Acknowledgment

- University of Michigan (Ann Arbor) is located on the traditional territory of the Anishinaabe people and was founded through the Treaty at the Foot of the Rapids with the Ojibwe, Odawa, and Bodewadami Nations.
- BC Cancer (Vancouver) is on unceded territories of the Musqueam, Squamish and Tsleil-waututh Nations.
- Rutgers (New Jersey) is on the ancestral territory of the Lenape people.

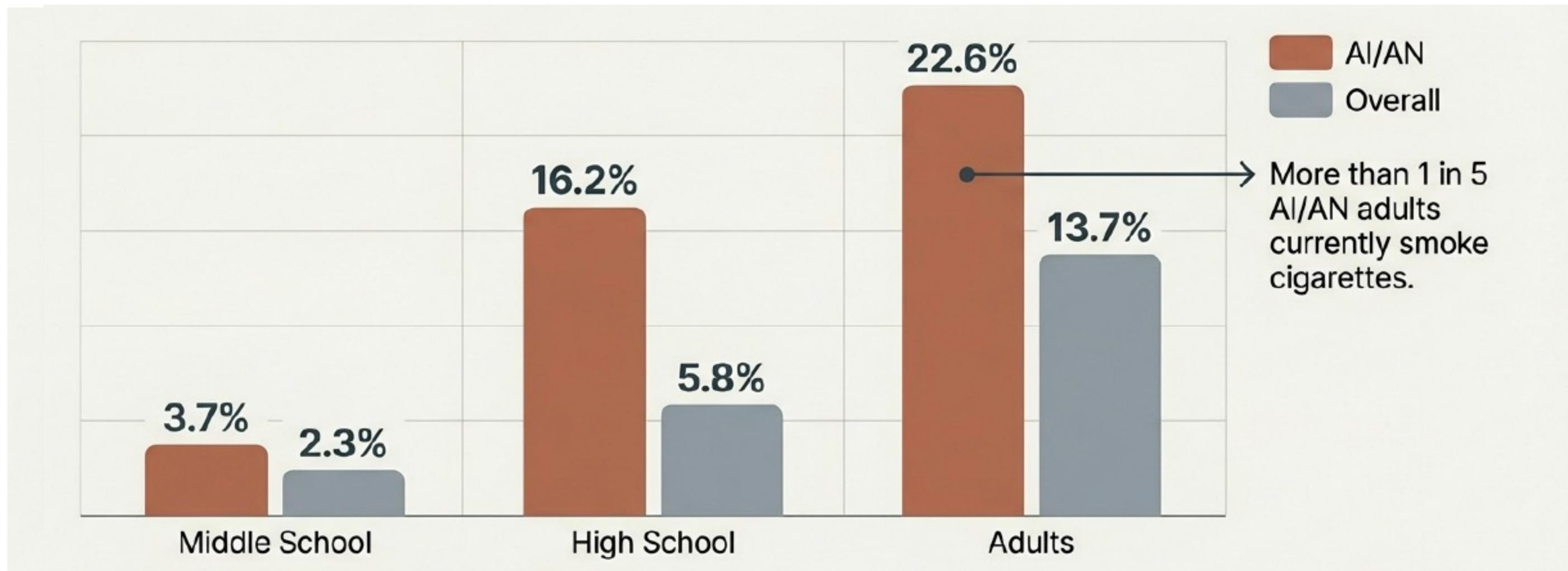
ACS data for AI/AN population (2024)



Source: U.S. Census Bureau. "Selected Population Profile in the United States."
American Community Survey, ACS 1-Year Estimates
<https://minorityhealth.hhs.gov/american-indian-and-alaska-native-health>

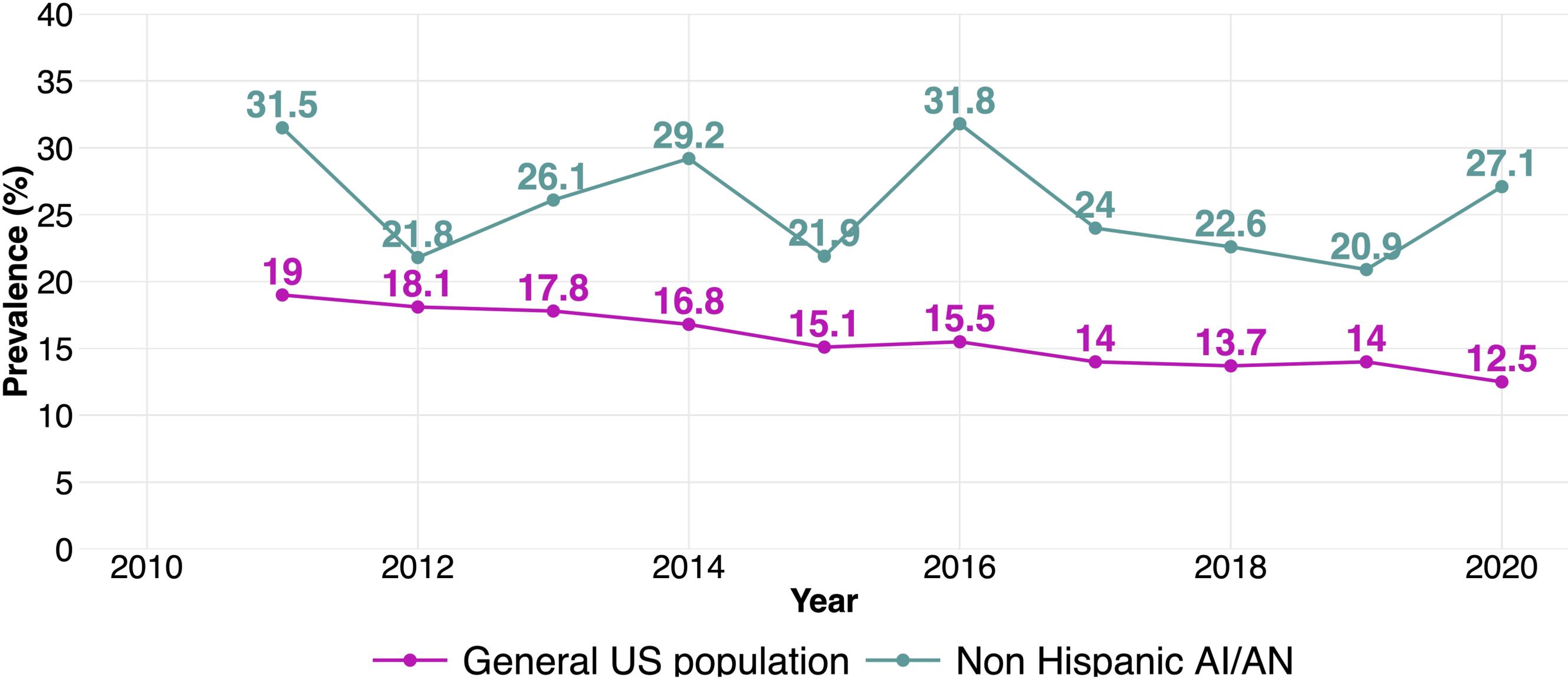
- In 2024, about 1.8 million people identified as non-Hispanic AI/AN alone; over 9.1 million people identified as AI/AN alone or in combination with one or more races
- Approximately 87% of the AI/AN population live in urban areas, while 13% live on reservations or tribal lands
- Sacred tobacco use
 - Used in medicinal and spiritual ceremonies; Natural without chemical additives; Not associated with addiction or adverse health impacts
- Commercial tobacco use
 - Contains thousands of chemicals and additives, associated with high rates of cancer, heart disease, diabetes, and stroke in the AI/AN population

Prevalence of cigarette smoking by age group (2018)



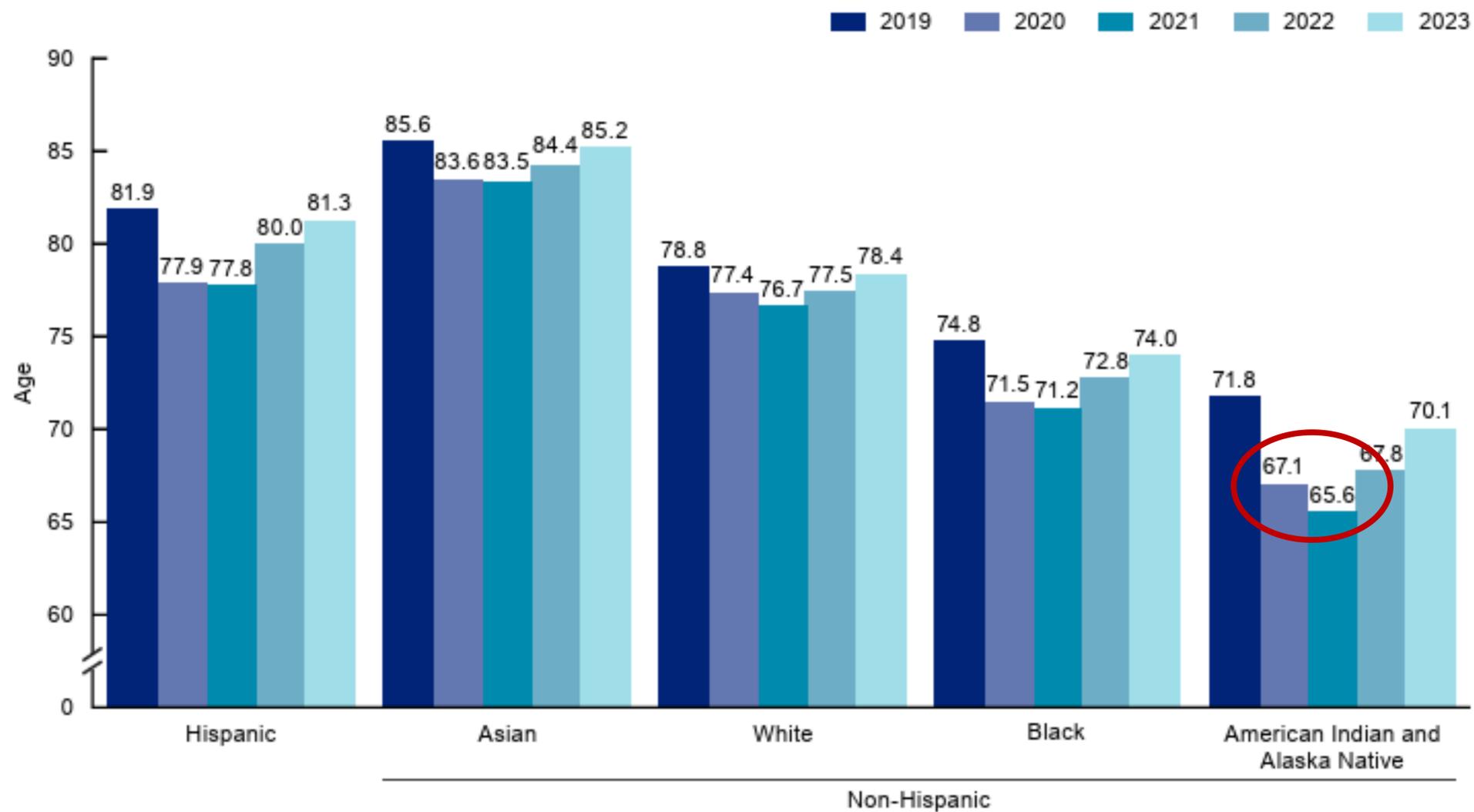
Source: Truth Initiative; CDC Morbidity and Mortality Weekly Report (2019)

Cigarette Smoking Trend in US Adults



Source: Arrazola et al. Prev Chronic Dis 2023

Life expectancy at birth, US 2019-2023



NOTE: People of Hispanic origin may be of any race.
 SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Source: National Vital Statistics Reports, Vol. 74, No. 6, July 15, 2025

Tobacco Longitudinal Mortality Study (TLMS)



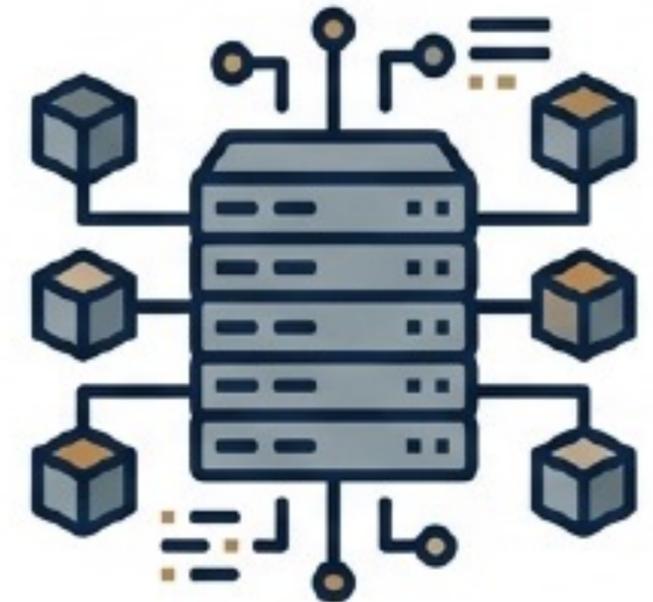
Census Data
(TUS-CPS)
1985-2018

1.6M+
Records



NCHS Data
(National Death Index)
Follow-up to 2019

~240,000
Mortality Cases



TLMS
Analysis File

26
Distinct Cohorts

TLMS Data - Relative Risk Mortality Analyses

Relative risk of all-cause mortality by smoking using the Cox proportional hazards model with adjustment for age, accounting for weights

Exclusion Criteria

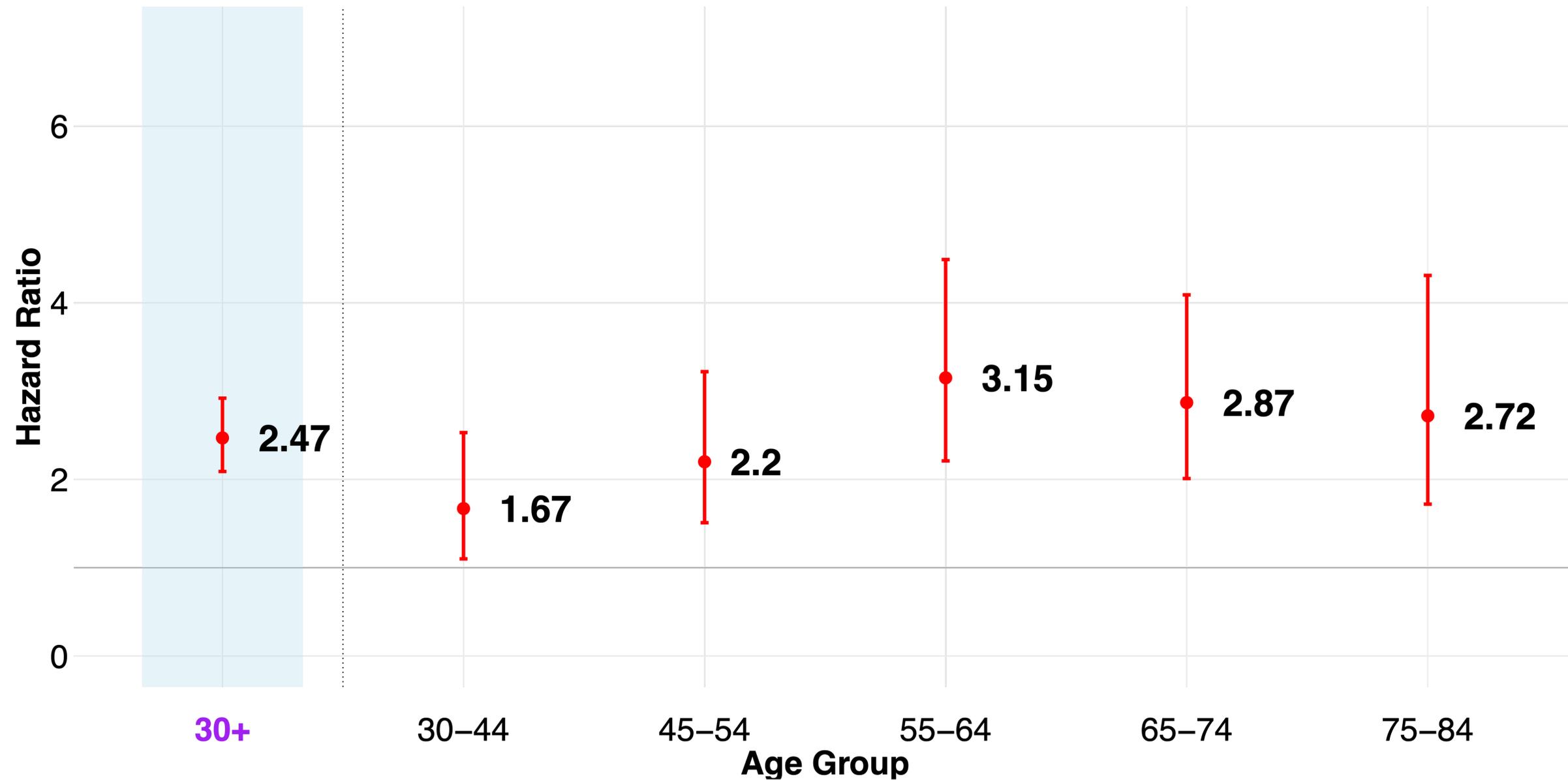
- Age < 30
- CIGSTAT=unknown
- Proxies
- Unknown Hispanic origin

Non-Hispanic AI/AN-Only
(N=8,700, 1985-2018)

Non-Hispanic AI/AN
with multi-race
(N=9,800, 2003-2018)

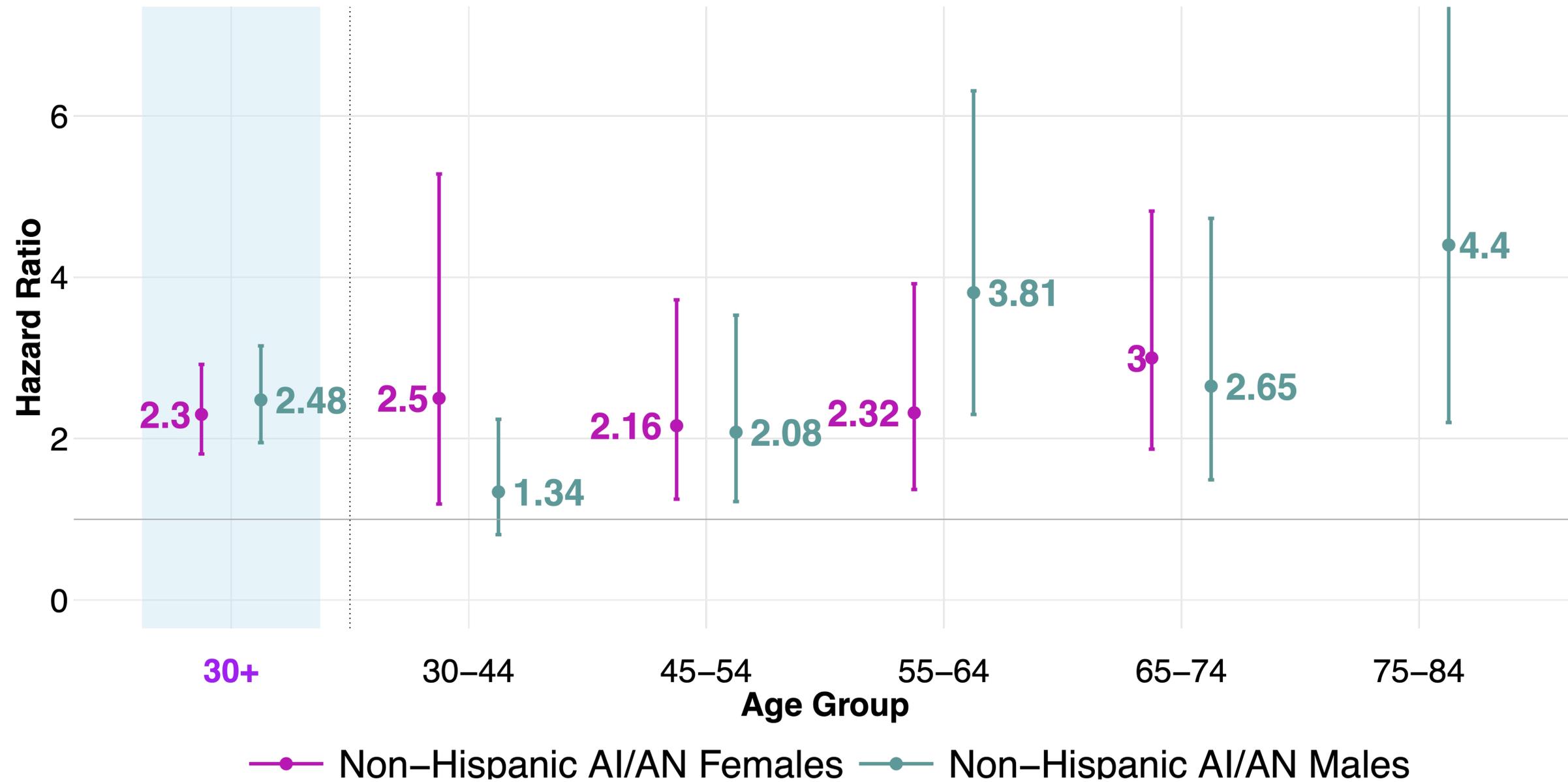
TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Current Smokers (Non-Hispanic AI/AN Only)



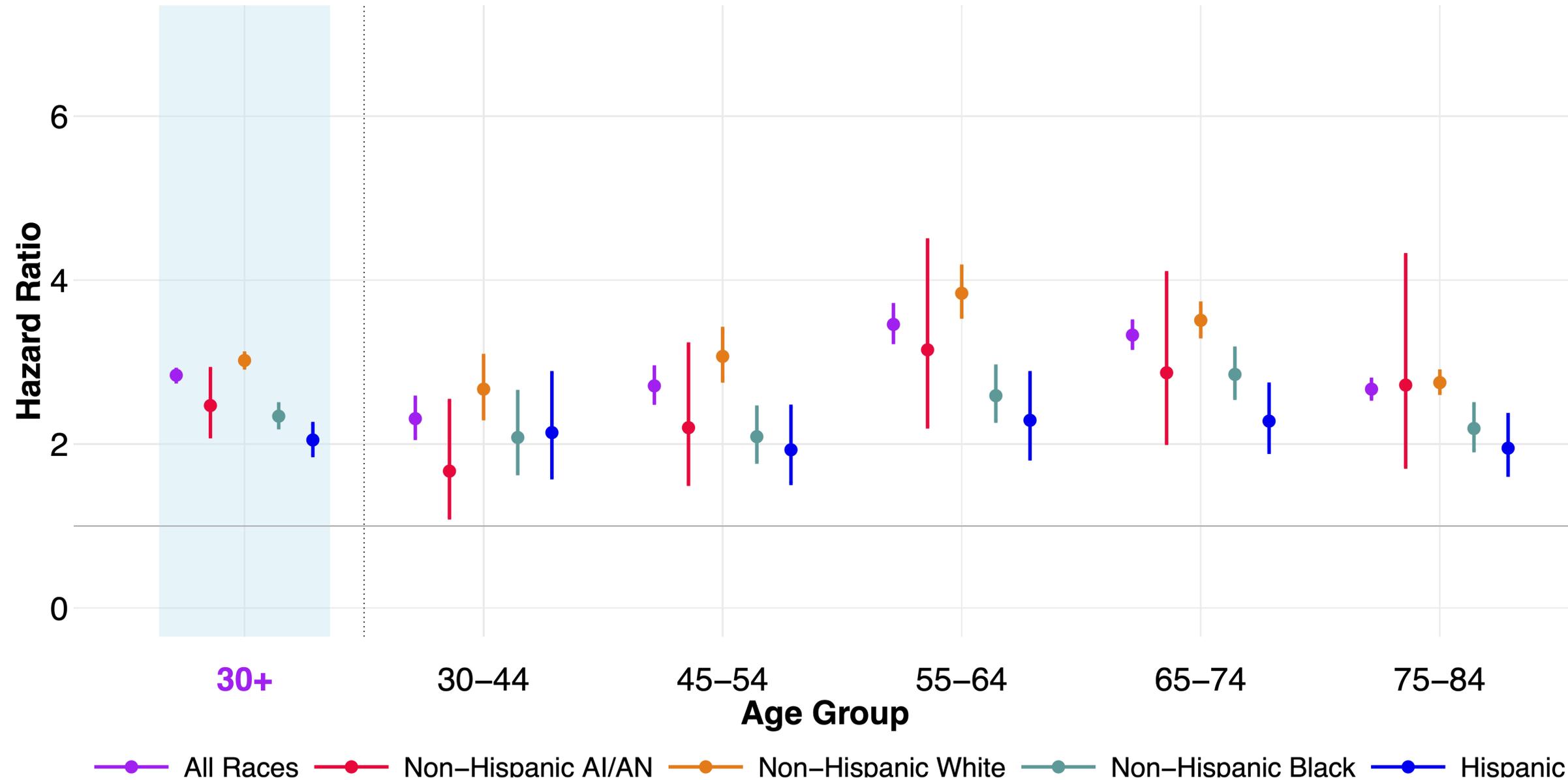
TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Current Smokers (Non-Hispanic AI/AN Only)



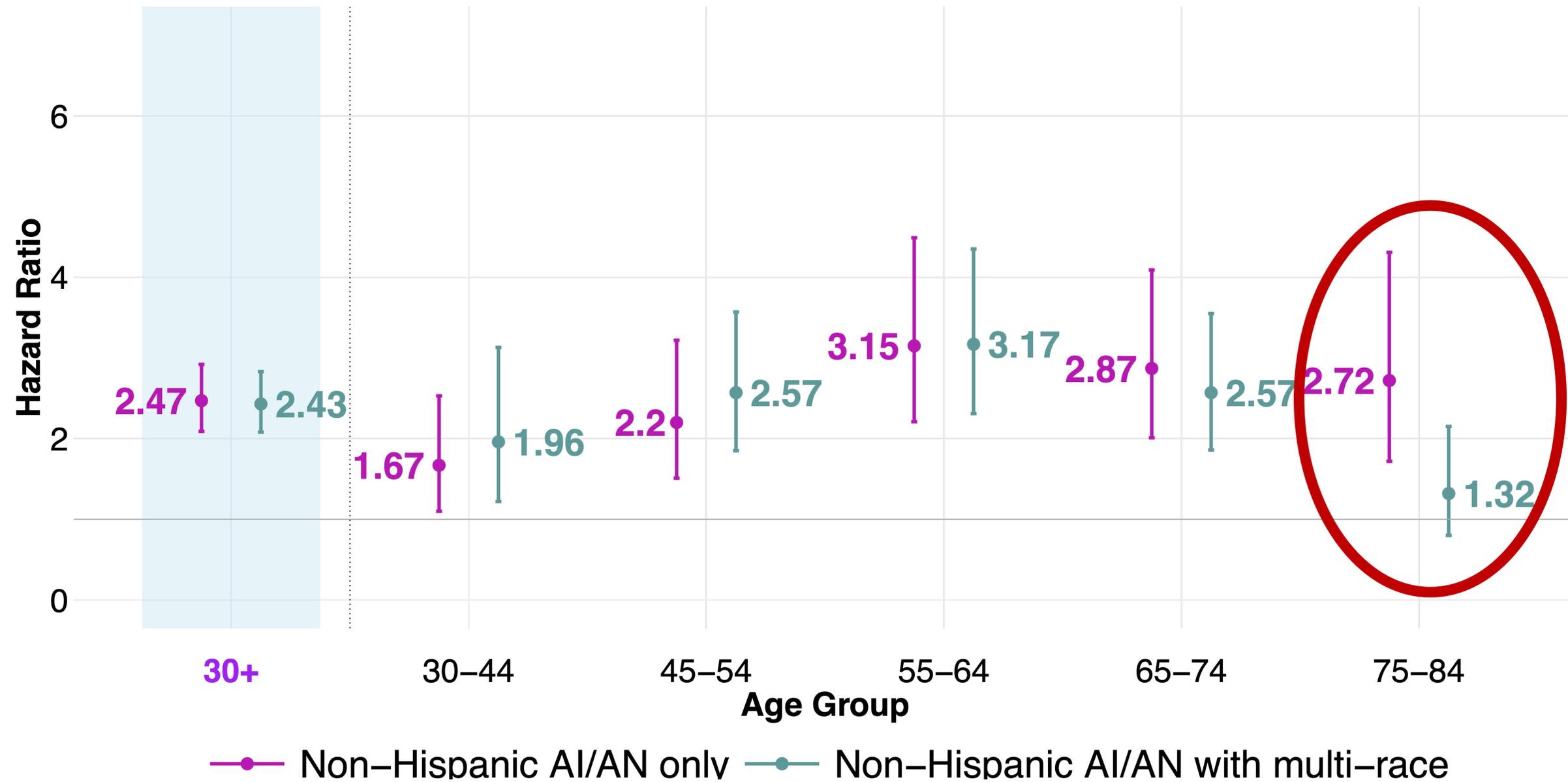
TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Current Smokers by race/ethnicity



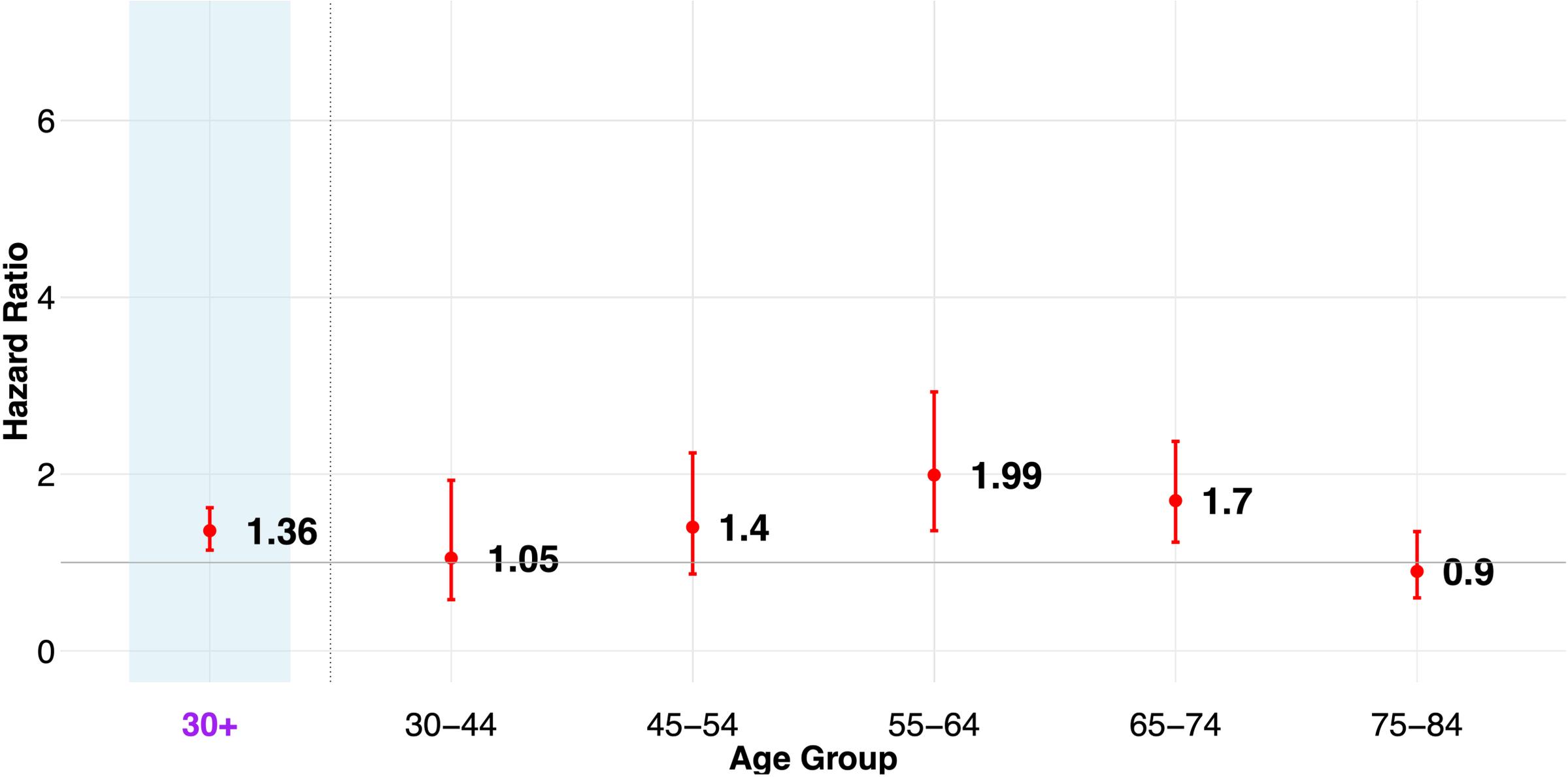
TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Current Smokers – Different AI/AN definitions



TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Former Smokers (Non-Hispanic AI/AN Only)



TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Takeaway Messages

- First relative mortality risk estimates by smoking for the AIAN population
- These estimates will facilitate estimations of AIAN-specific smoking attributable mortality and the development of simulation models of tobacco policies and interventions
- Consistent with those from the general population and other races
- Similar results regardless of AI/AN population definition



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[CAStoR]

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Thank you!

Any Questions or Comments?

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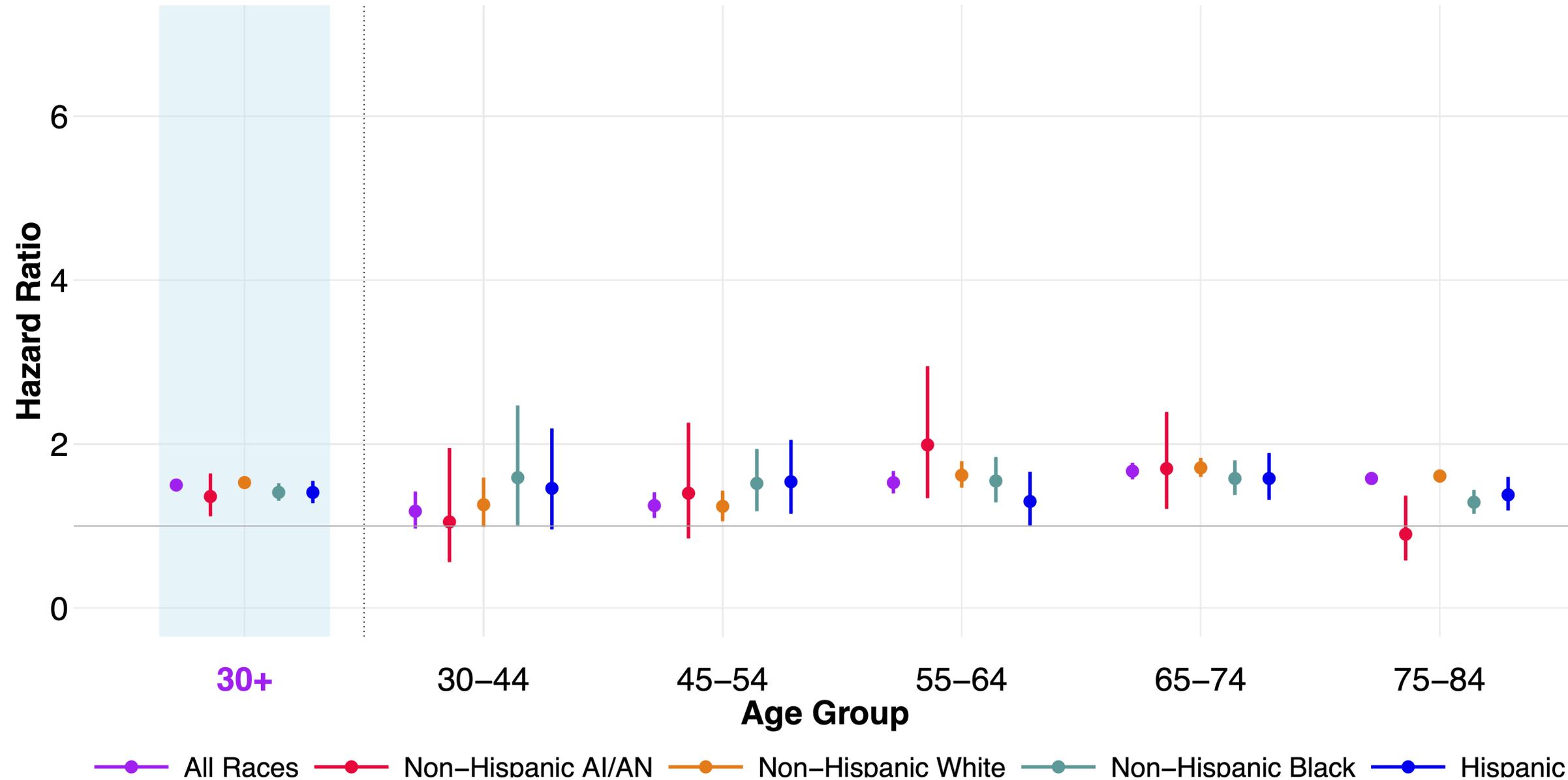
<https://tcors.umich.edu/>

Extra Slides

TLMS – Identifying AI/AN Populations

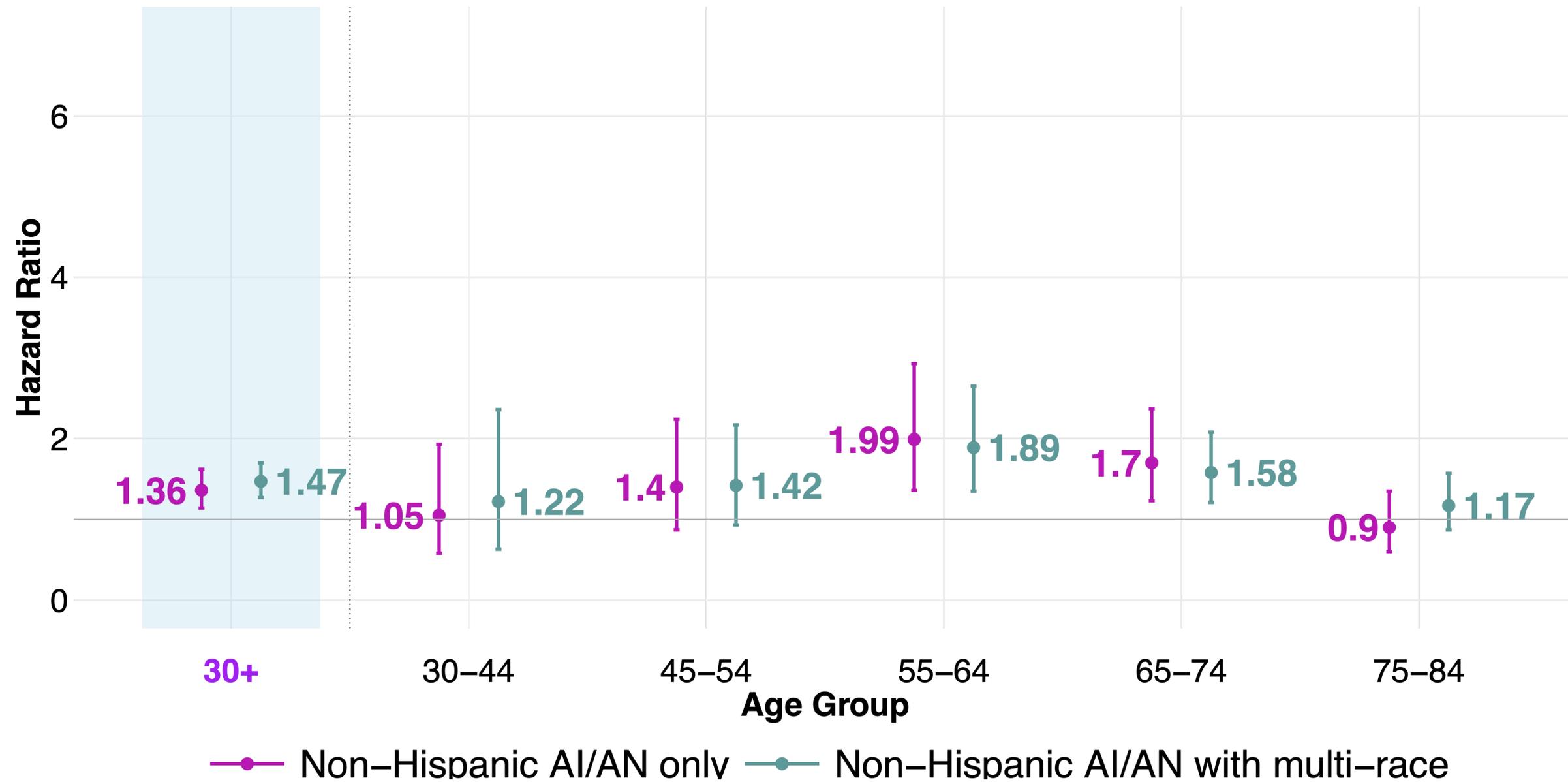
Variable: RACE (All Cohorts)	Variable: RACE_DETAIL (Post-2003)
01: White	01: White Only
02: Black	02: Black Only
03: American Indian, Aleut, Eskimo	03: American Indian, Alaskan Native Only
04: Asian Or Pacific Islander	04: Asian Only
	05: Hawaiian/Pacific Islander Only
	06: White and Black
	07: White and American Indian
	08: White and Asian
	09: White and Hawaiian
	10: Black and American Indian
	'13', '14' '16' '19' '20' '22' '23' '25' '26' '27' '29' '30' '31' includes 'American Indian'

Former Smokers by race/ethnicity



TLMS - DRB Approval Number: CBDRB-FY26-CES004-003

Former Smokers



TLMS - DRB Approval Number: CBDRB-FY26-CES004-003