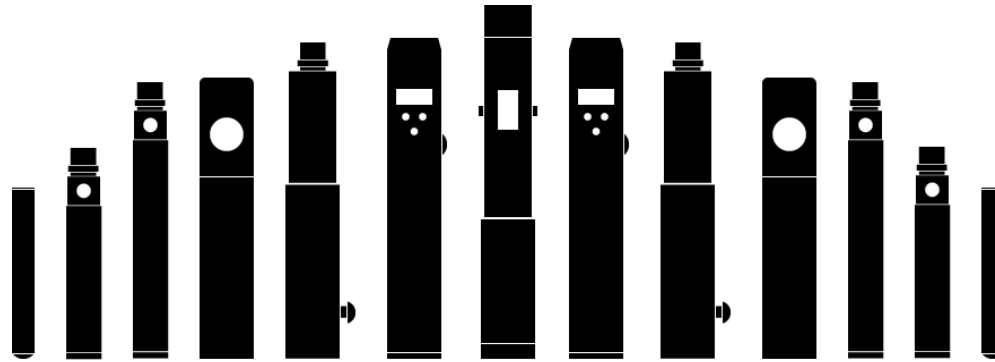


Electronic Nicotine Delivery Systems: Patterns of Use and Disparities



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Outline

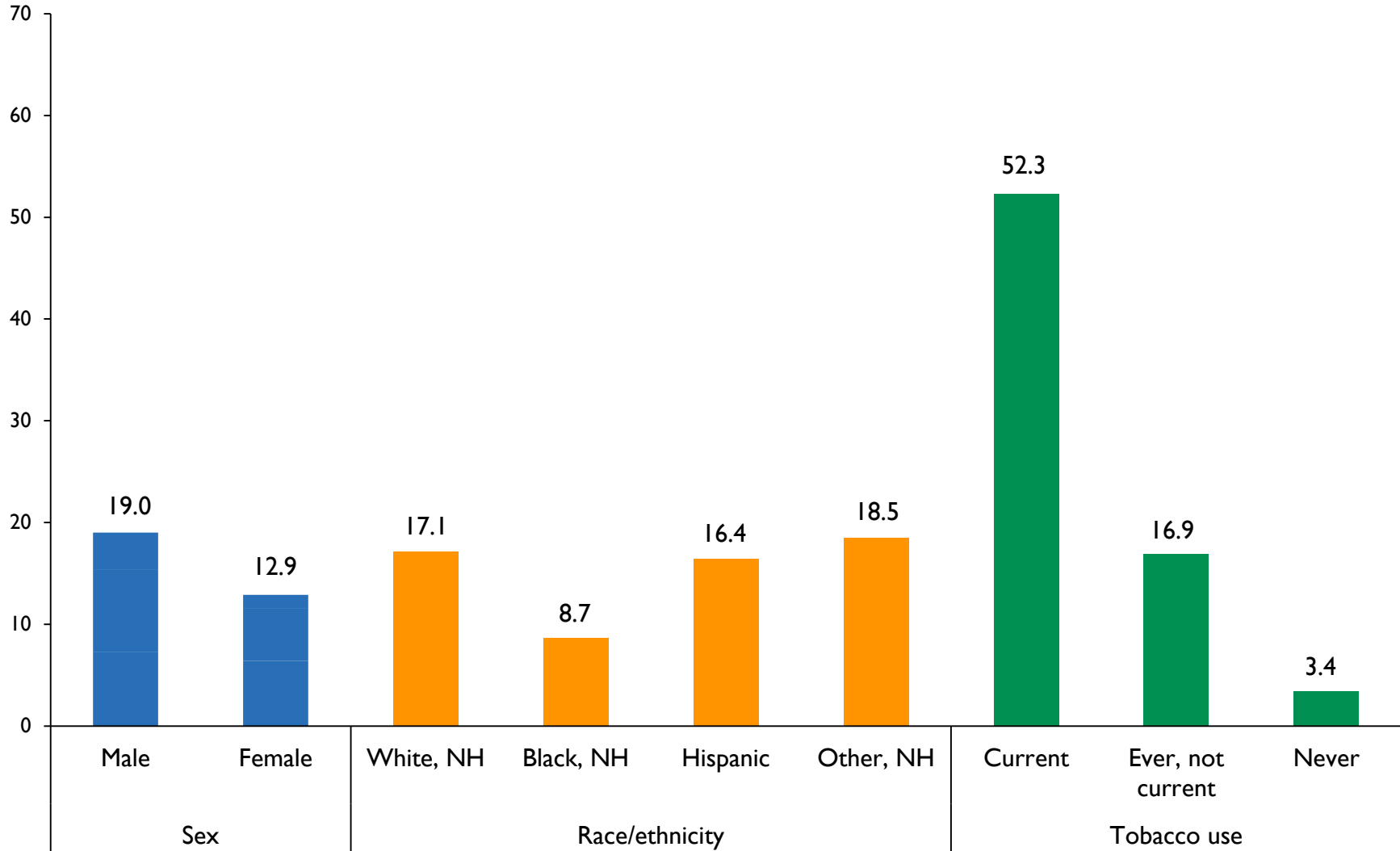
- Youth prevalence data
 - National Youth Tobacco Survey (NYTS)
 - Monitoring the Future (MTF)
- Adult prevalence data
 - National Health Interview Survey (NHIS)
 - National Adult Tobacco Survey (NATS)
 - Population Assessment of Tobacco and Health (PATH)
- Possible explanations for disparities in ENDS use

ENDS use among youth

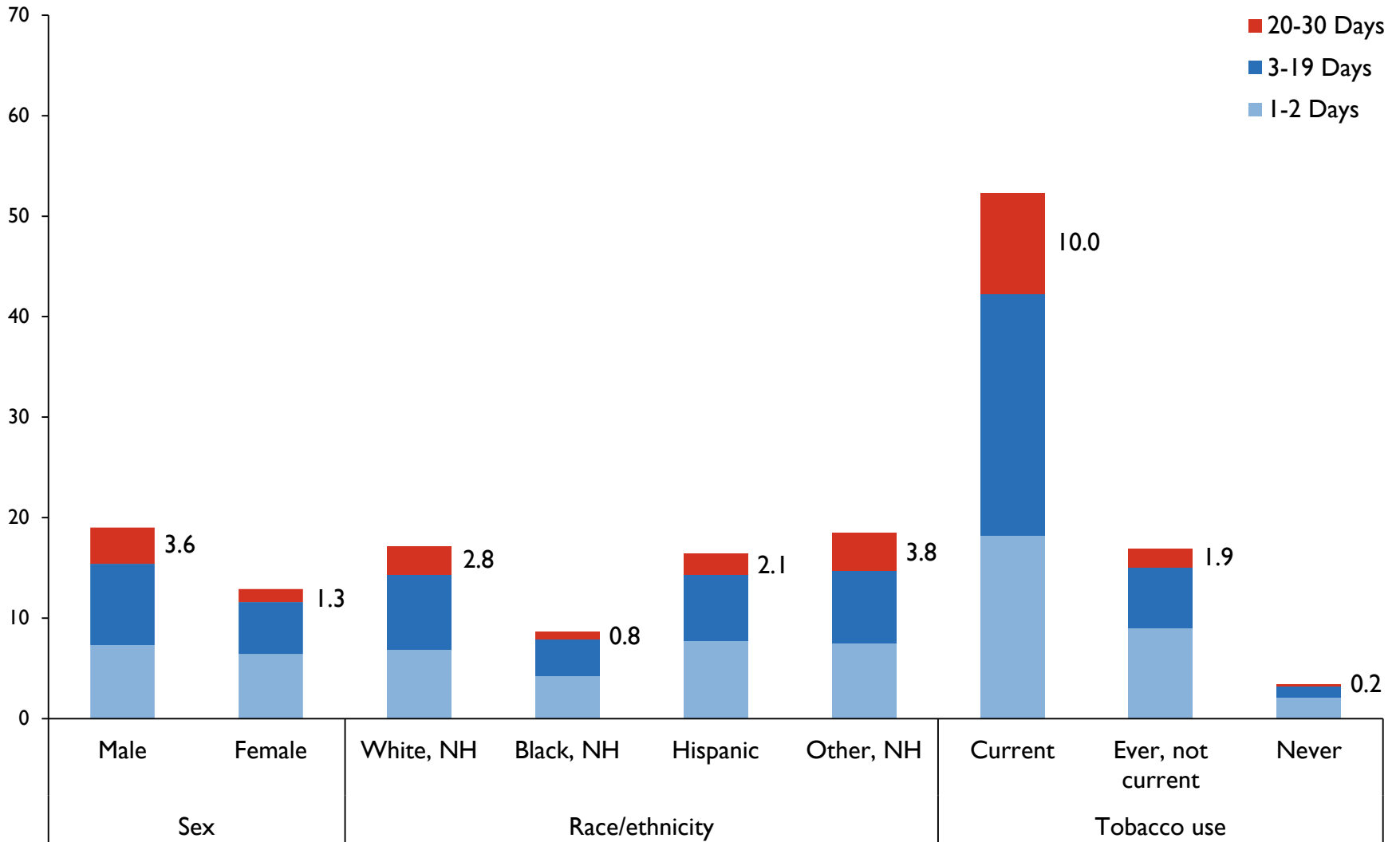
- Over one-third (38%) of U.S. high school students have tried ENDS (NYTS)
 - Highest among males, white and Hispanic students
- The vast majority (80%) of ENDS users have also tried another tobacco product (NYTS)
- Progression to daily or almost daily use is uncommon, particularly among never tobacco users

Past 30 day ENDS use among U.S. high school students

2015 National Youth Tobacco Survey (n=9,433)



Frequency of ENDS use among U.S. high school students 2015 National Youth Tobacco Survey (n=9,433)



Product characteristics - youth

- Almost half (43%) of current ENDS users used a flavored product in past 30 days (NYTS)
- Most youth that have tried ENDS believe they used e-liquid that did not contain nicotine (MTF)



REDHEAD E-LIQUID - STRAWBERRY+GINGER+LEMONADE E-JUICE (60ML)

By: 503 e-Liquid

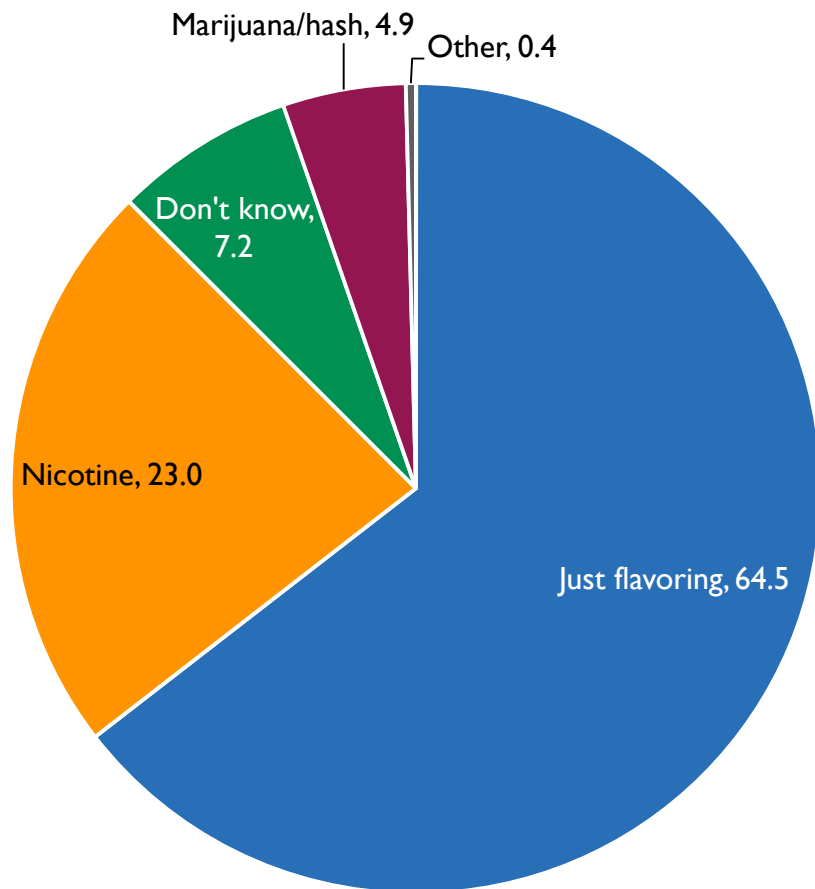
25⁰⁰

Nicotine Strength

- ✓ 0mg (no nicotine)
- 1.5mg
- 3mg
- 6mg
- 12mg



Content of e-liquid during last ENDS use among HS seniors 2015 Monitoring the Future (n=596)

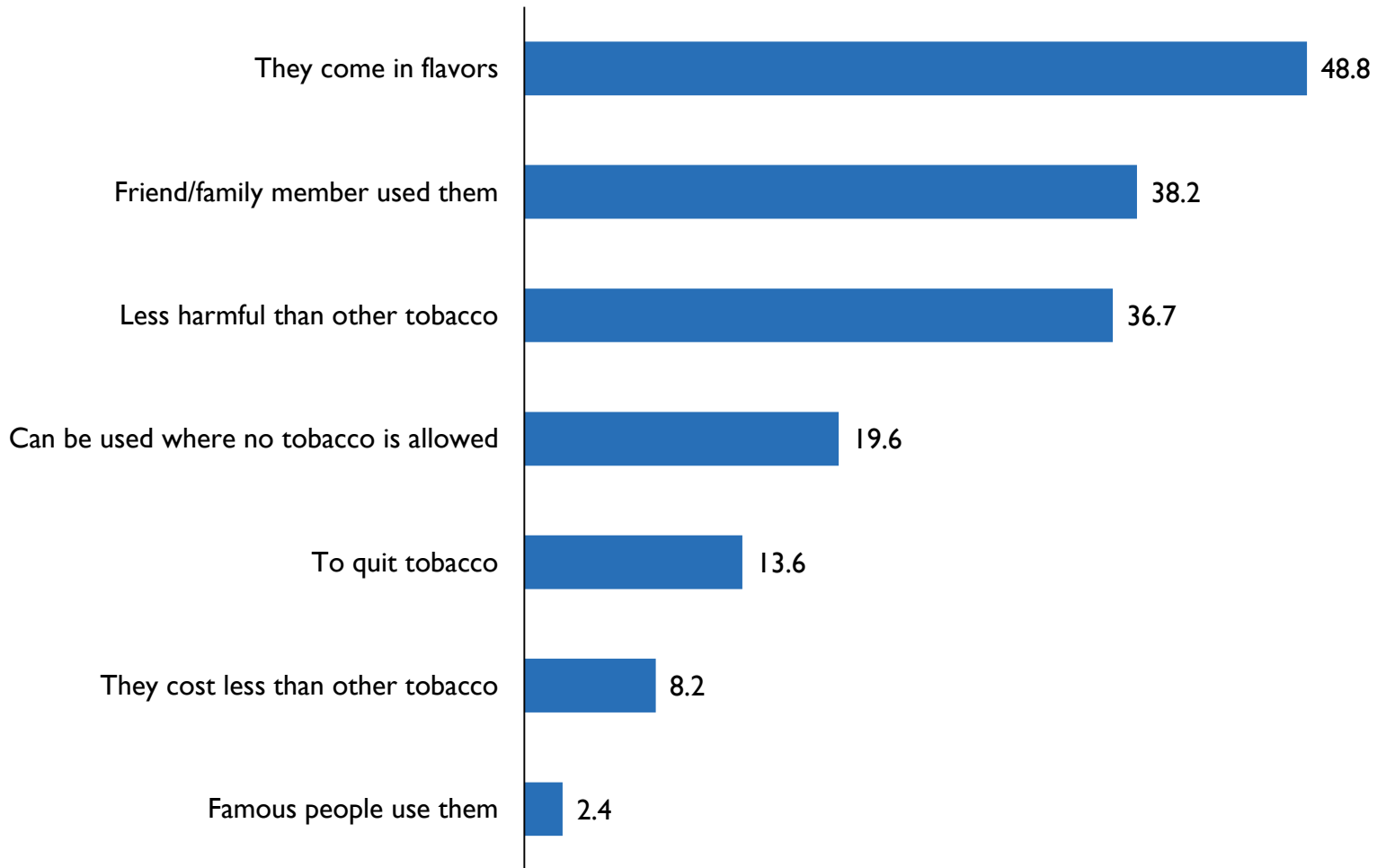


Reasons for use - youth

- Experimentation/curiosity most commonly cited reason among ever ENDS users (54%) (MTF)
- Among current users, flavors, family/peer use, and perception of reduced harm often cited as reasons
- Smoking cessation **not** cited as a primary reason among youth

Reasons for use among HS students who currently use ENDS

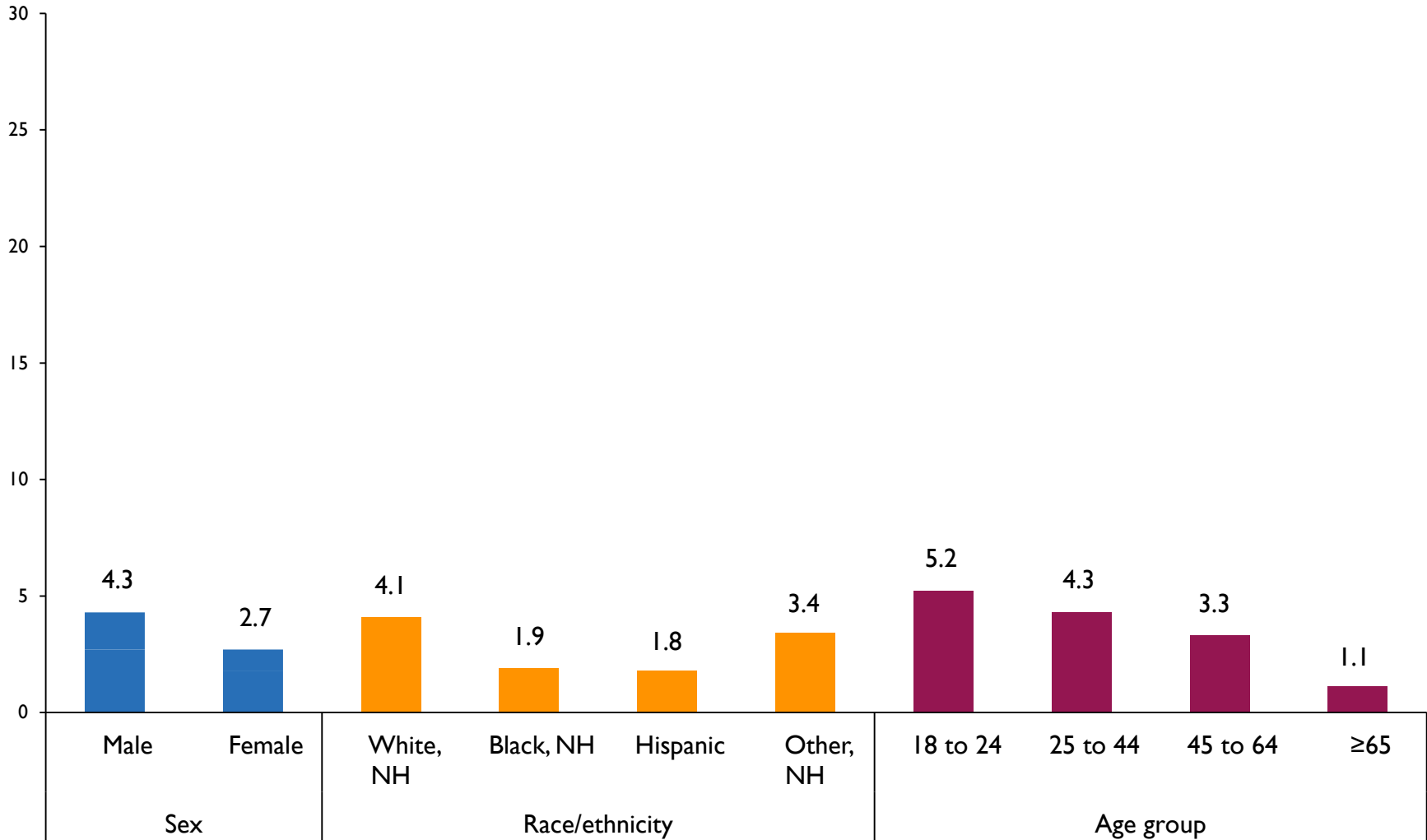
2015 National Youth Tobacco Survey (n=4,673)



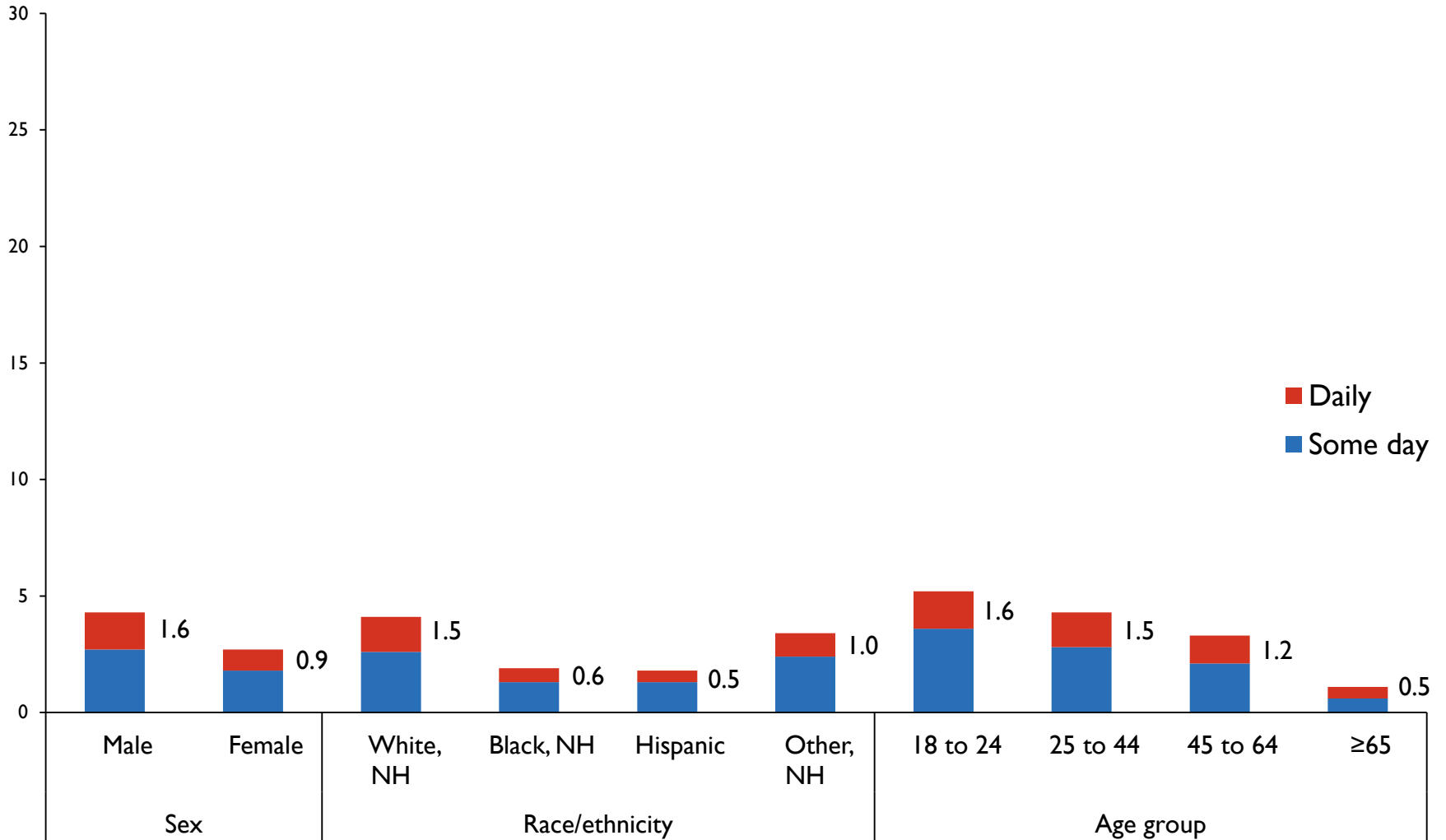
ENDS use among adults

- Nearly 14% of adults have ever used ENDS (NHIS)
 - Higher prevalence among males, whites, young adults
 - Smoking status strongest predictor of ENDS use
- Less than 4% of adults use some days or daily (NHIS)
 - Current use most common among current smokers and recent quitters

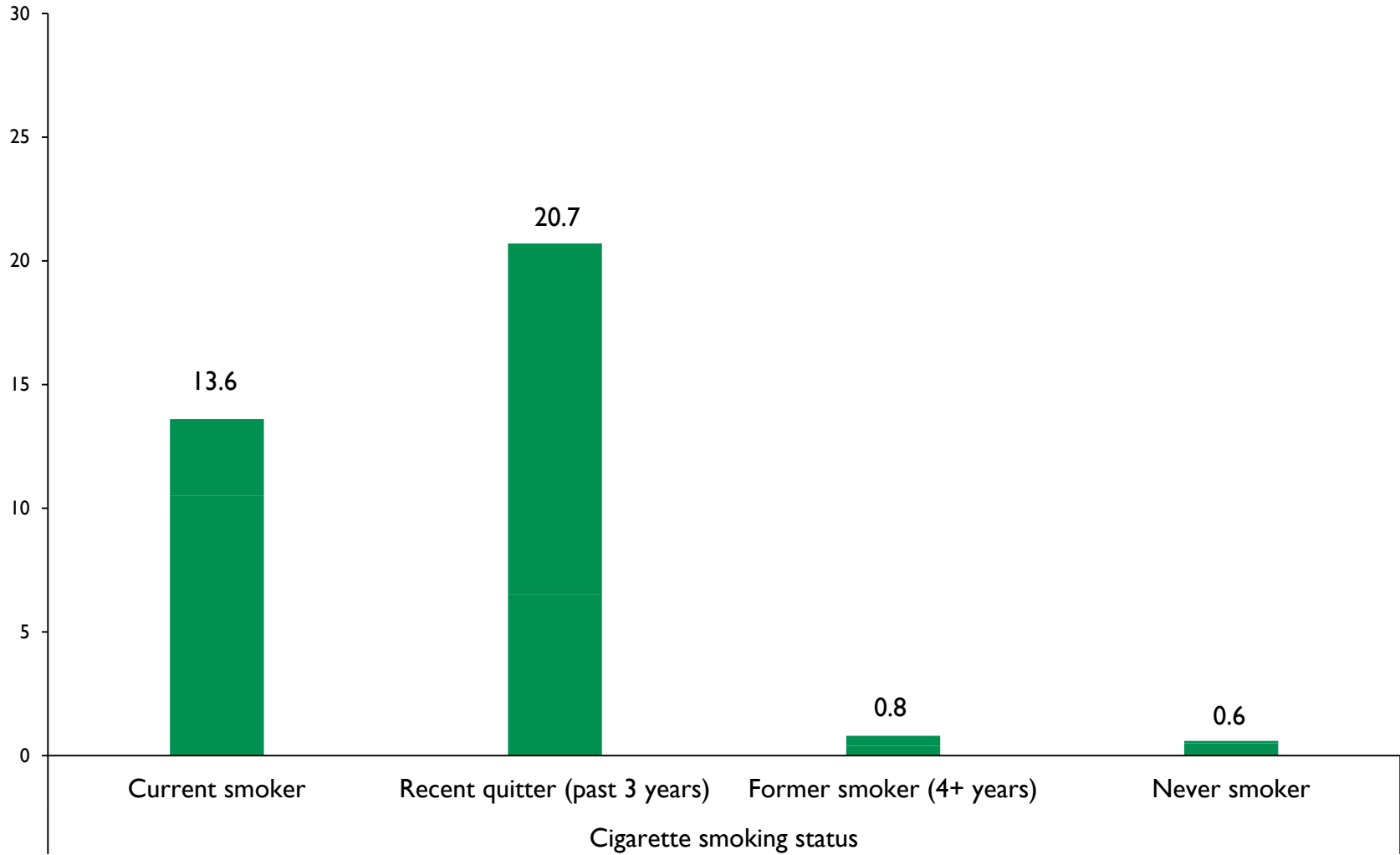
Current ENDS use among U.S. adults 2015 National Health Interview Survey (n=33,672)



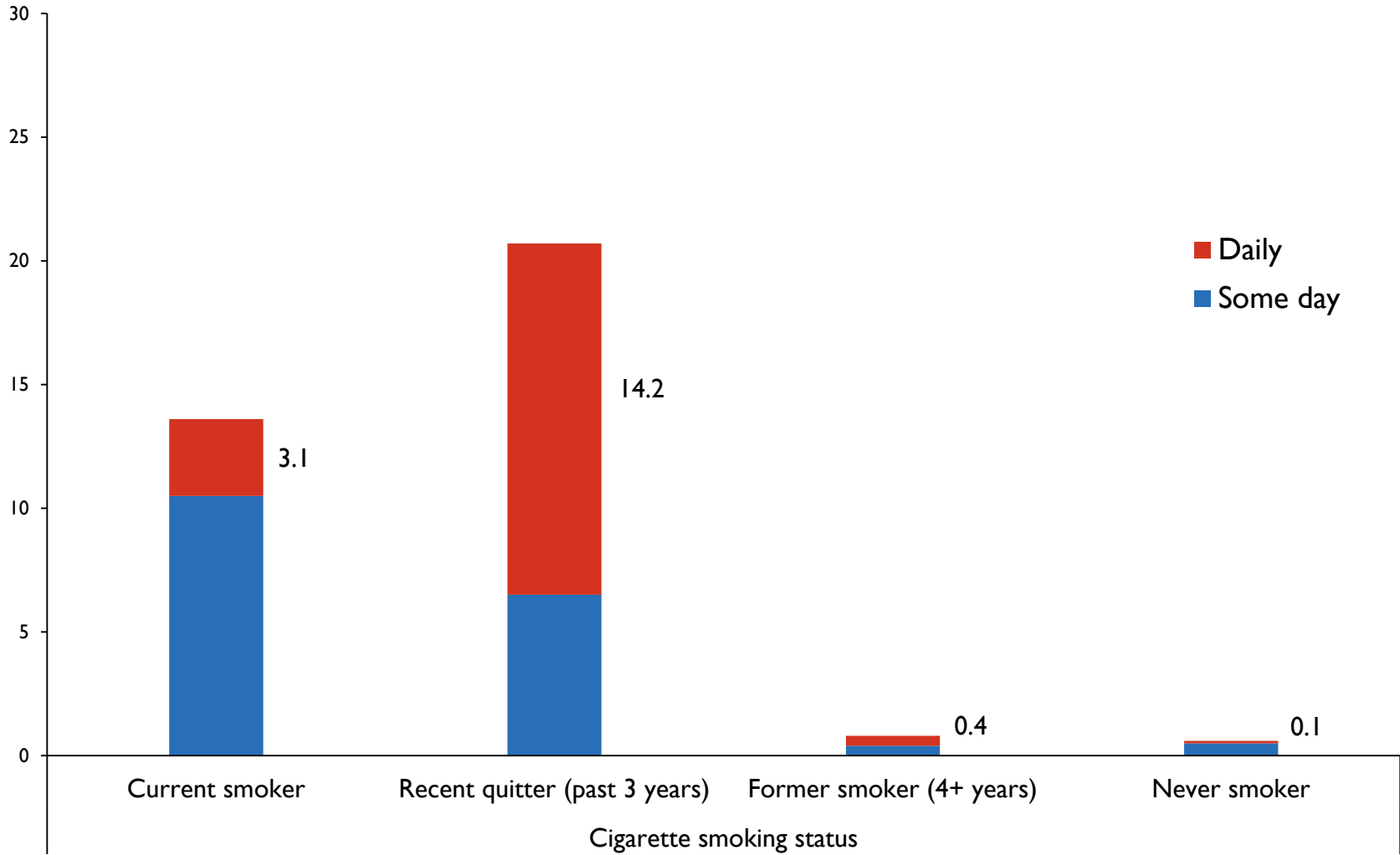
Frequency of ENDS use among U.S. adults 2015 National Health Interview Survey (n=33,672)



Current ENDS use among U.S. adults 2015 National Health Interview Survey (n=33,672)



Frequency of ENDS use among U.S. adults 2015 National Health Interview Survey (n=33,672)



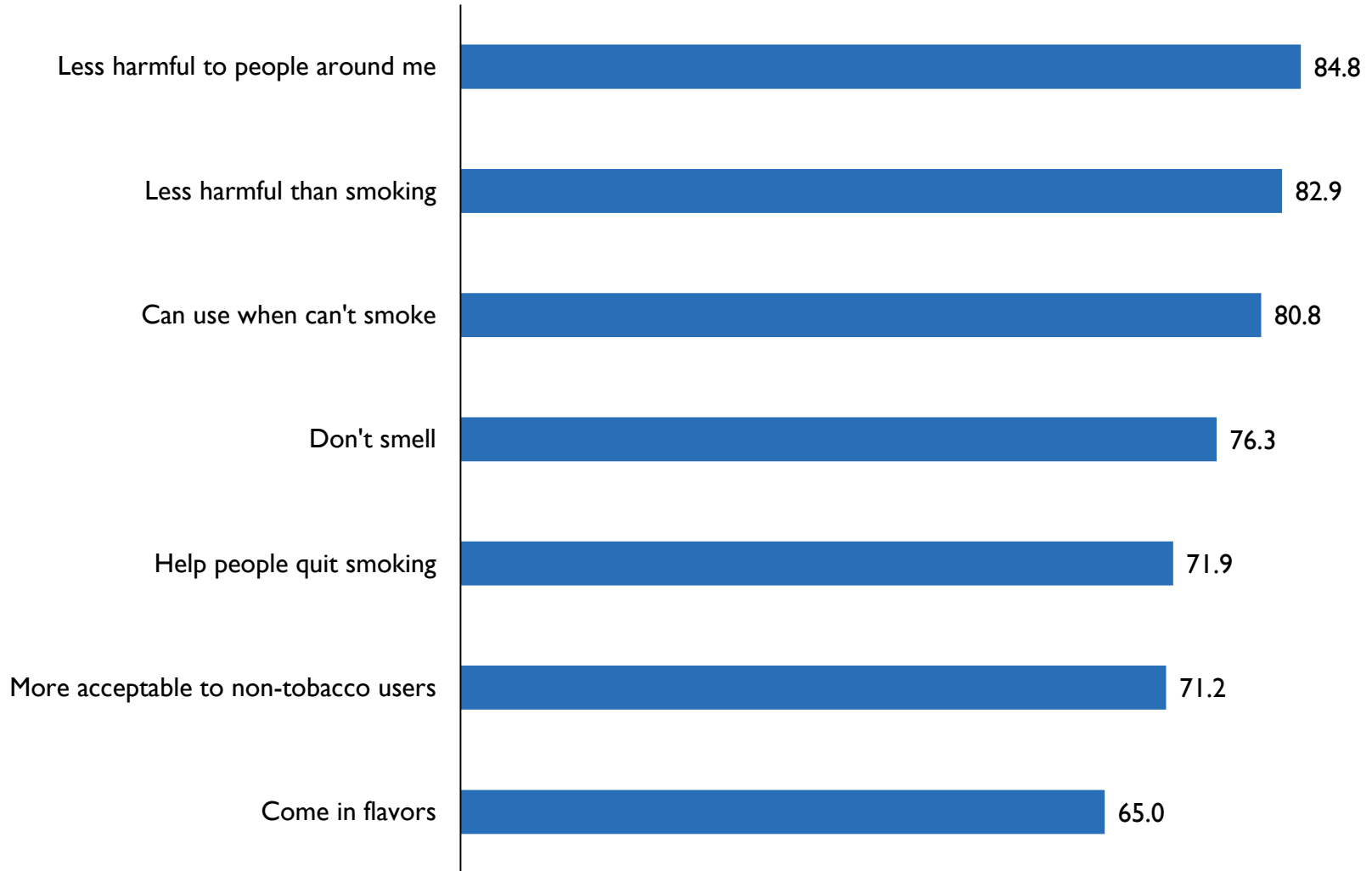
Product characteristics - adults

- Over two-thirds (68%) of current ENDS users used a flavored product in past 30 days (NATS)
 - Most popular flavors: fruit (30.1%), menthol (29.4%), candy/sweet (17.2%)
- Use of devices where users can add own e-liquid differs by smoking status (PATH)
 - Current smokers: 44.4%
 - Former smokers: 63.1%



Common reasons for use among current ENDS users

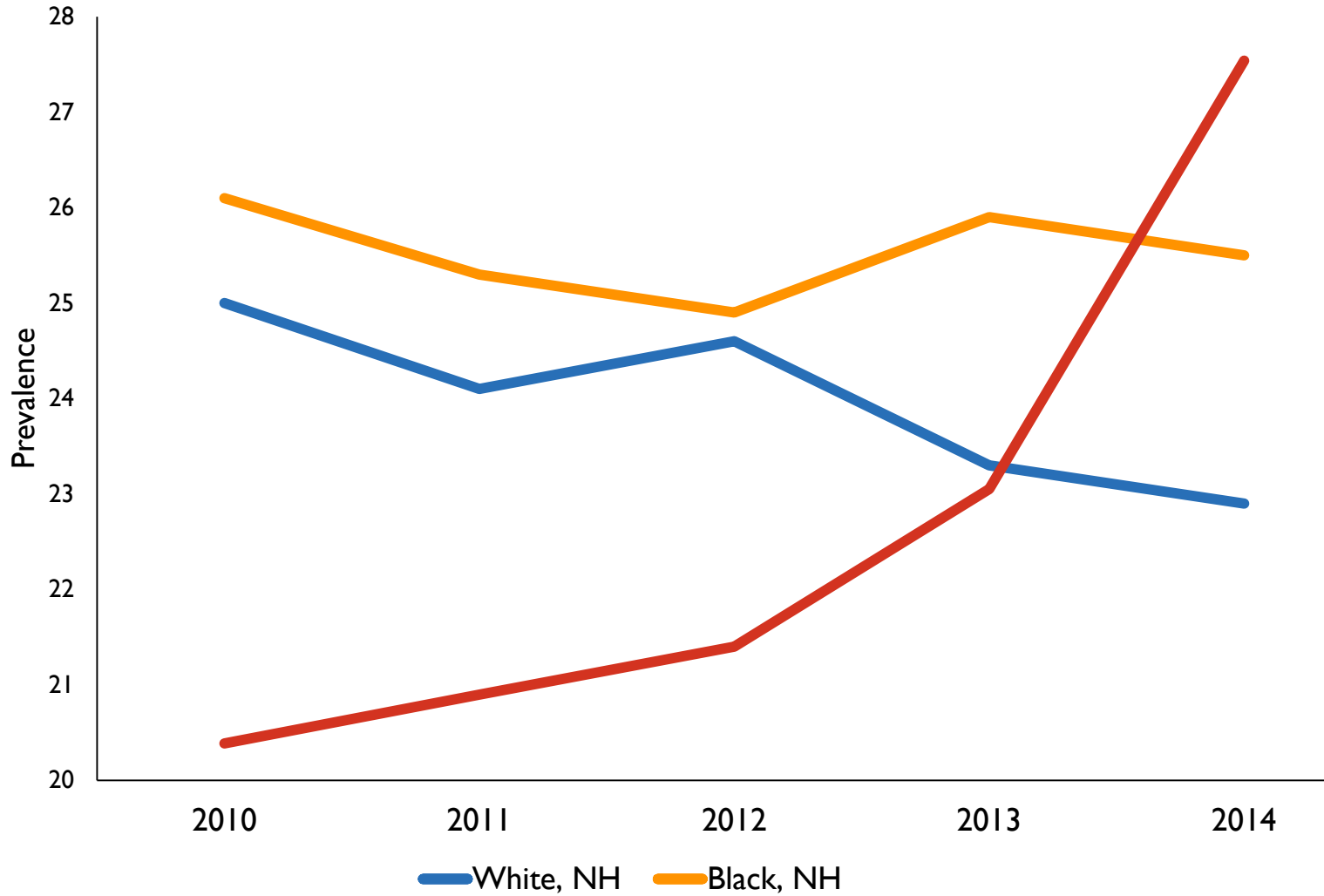
Population Assessment of Tobacco and Health – Wave I (n=3,640)



Disparities in ENDS use

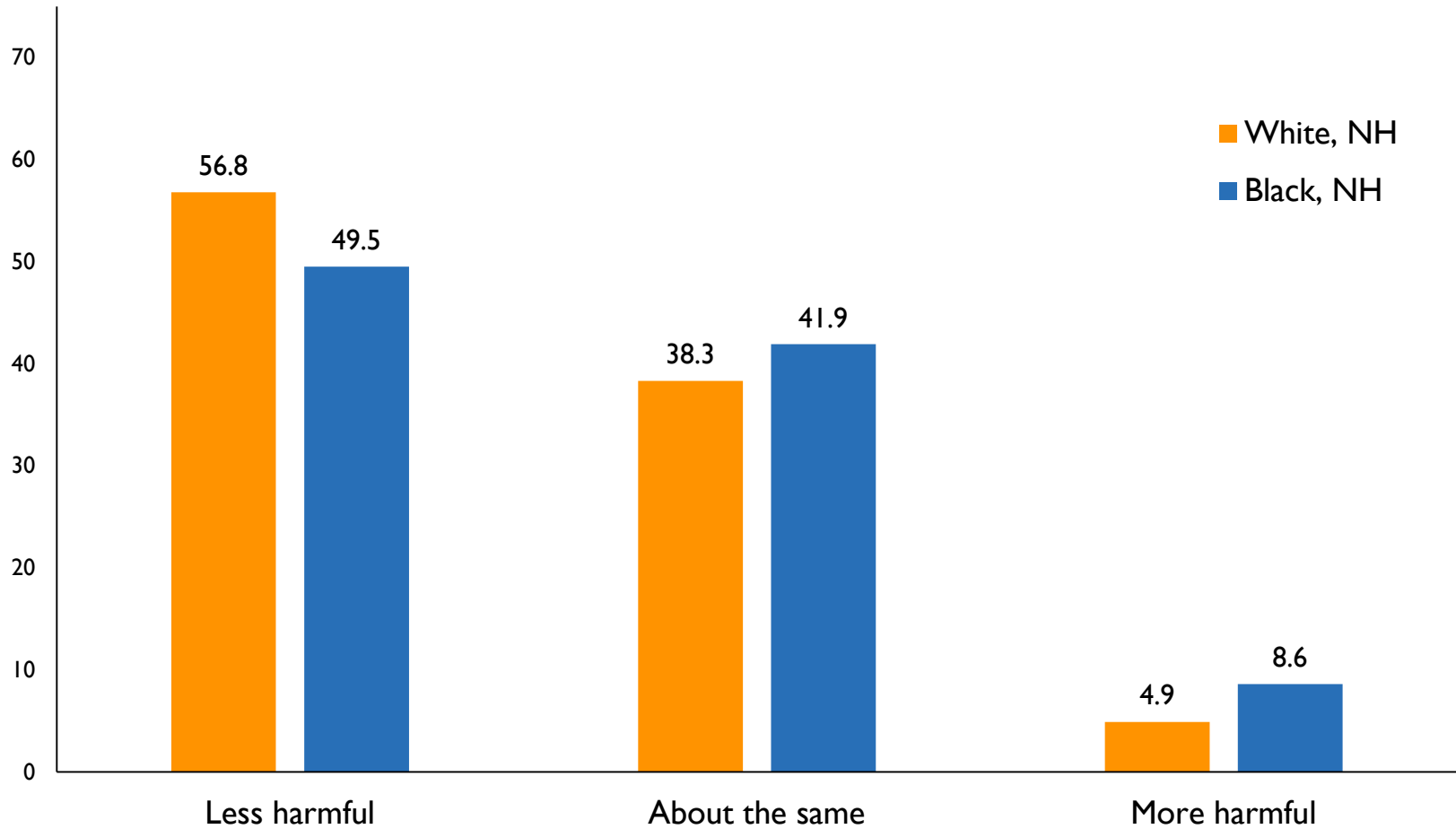
- We would expect to see highest ENDS use among groups with highest smoking rates (e.g., white, black Americans)
 - Black smokers have lowest rates of ENDS uptake, while whites have highest
- Some concern that disproportionate rates of harm reduction may exacerbate smoking disparities

Adult combustible product use by race 2010-2014 National Survey on Drug Use and Health

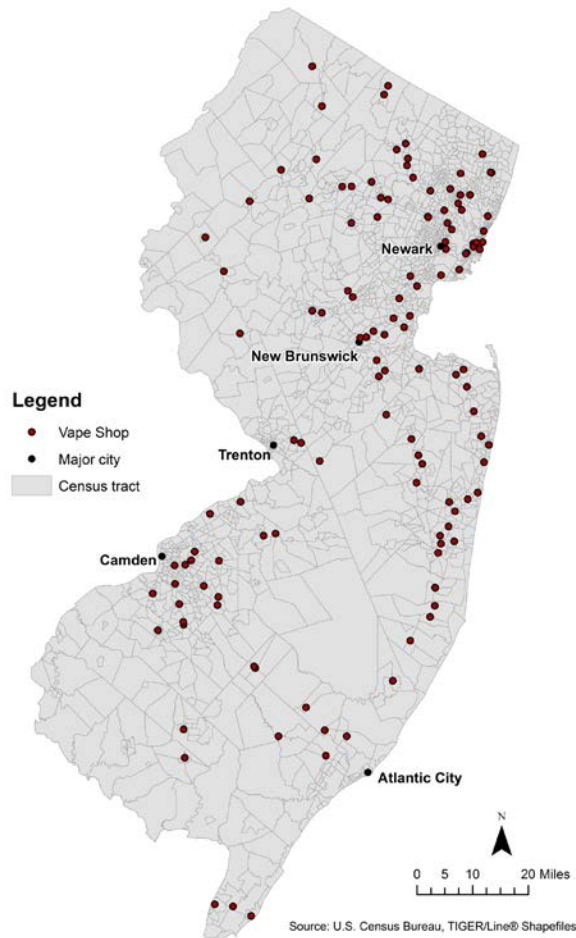


Perceived harm of ENDS compared to cigarettes among smokers

Population Assessment of Tobacco and Health – Wave I (32,242)



Where are “vape shops” opening?



Contents lists available at [ScienceDirect](#)

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Health & Place

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Census tract correlates of vape shop locations in New Jersey

Daniel P. Giovenco^{a,*}, Dustin T. Duncan^b, Elliot J. Coups^c, M. Jane Lewis^a,
Cristine D. Delnevo^a

- Census tracts with:
 - ▲ Tobacco retailers
 - ▼ African Americans
 - ▼ Hispanic/Latinos
- “Middle class, White Suburbia”

Summary

- Rates of ENDS trial and current use are higher among youth than adults
 - Males and whites report highest rates of use
- Smoking behaviors strongest predictor of ENDS use
 - Use highest among current smokers and recent quitters
 - Regular use among non-tobacco users is rare
- Reasons for use differ between youth and adults
 - Youth use is more recreational in nature
 - Adults primarily use ENDS to reduce or quit smoking
- Among smokers, differences in uptake by race

Thank you!