

# Myocardial Infarction Trends and Disparities among Same Race/Ethnicity Transgender and Cisgender Adults Using the CDC Behavioral Risk Factor Surveillance System (2017-2022)

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## Introduction

Earlier Behavioral Risk Factor Surveillance System (BRFSS) studies found higher myocardial infarction (MI) rates among transgender vs cisgender persons<sup>1</sup>

BRFSS directly collects gender identity without relying on dysphoria-related diagnostic codes and is nationally representative<sup>2</sup>

Evidence indicates that racial/ethnic minorities experience a disproportionate burden of cardiovascular disease (CVD)<sup>3</sup>

Intersectional research approaches acknowledge interrelatedness of systems of inequality and their impact on health outcomes<sup>4</sup>

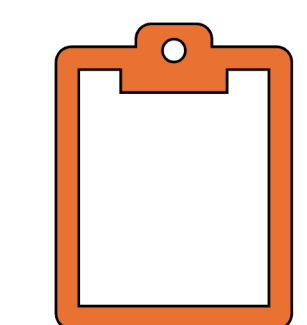
Limited studies exist on CVD outcomes among gender minority populations with intersecting minority identities

## Research Goal

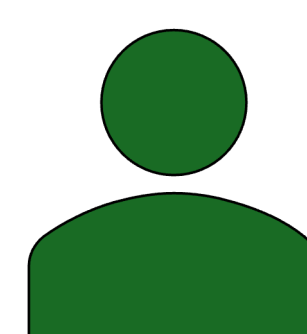
To evaluate trends and intersectional differences in reported history of MI among transgender adults versus same-race/ethnicity cisgender adults

## Methods

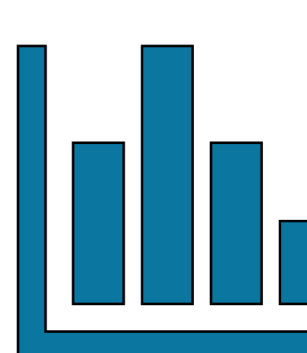
Centers for Disease Control and Prevention (CDC) BRFSS surveys on US residents' health behaviors, conditions, preventive service use



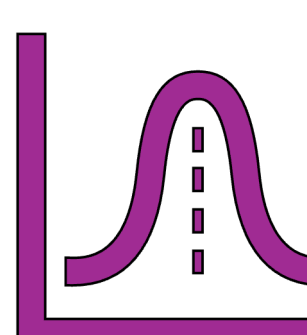
Merged data from publicly available 2017 to 2022 annual CDC BRFSS annual surveys



Coded transgender woman, transgender man, cisgender woman, cisgender man based on sex/gender identity variables



Logistic regression models assessed MI risk across gender and race/ethnicity; covariates included sociodemographics, chronic conditions, health behaviors



Reported adjusted odds ratios (aOR) with 95% confidence intervals (CI); complex sampling procedures used for analyses

## Figures and Results

Figure 1. Median age (in years) of respondents from 2017 to 2022 (IQR)

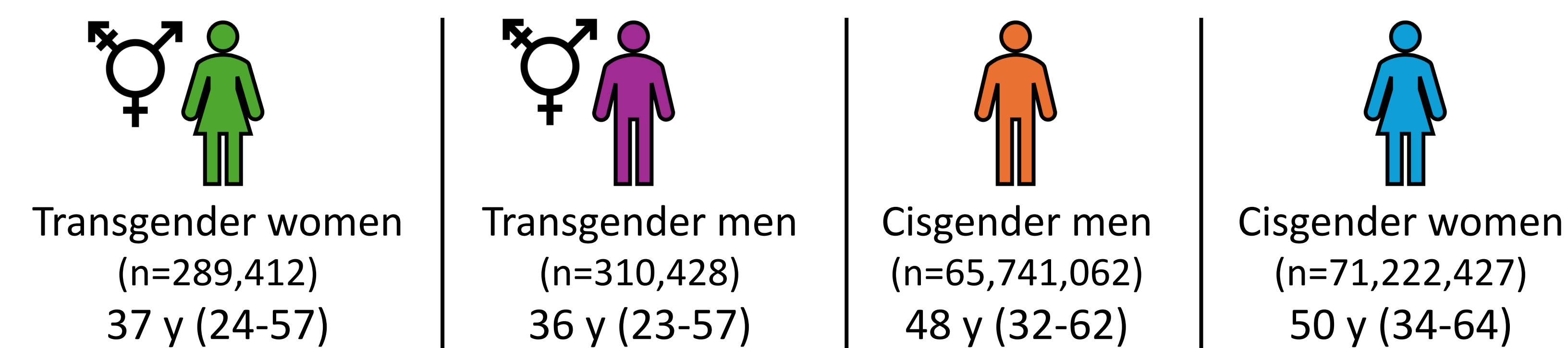


Figure 2. Prevalence rate of MI by gender status from 2017 to 2022

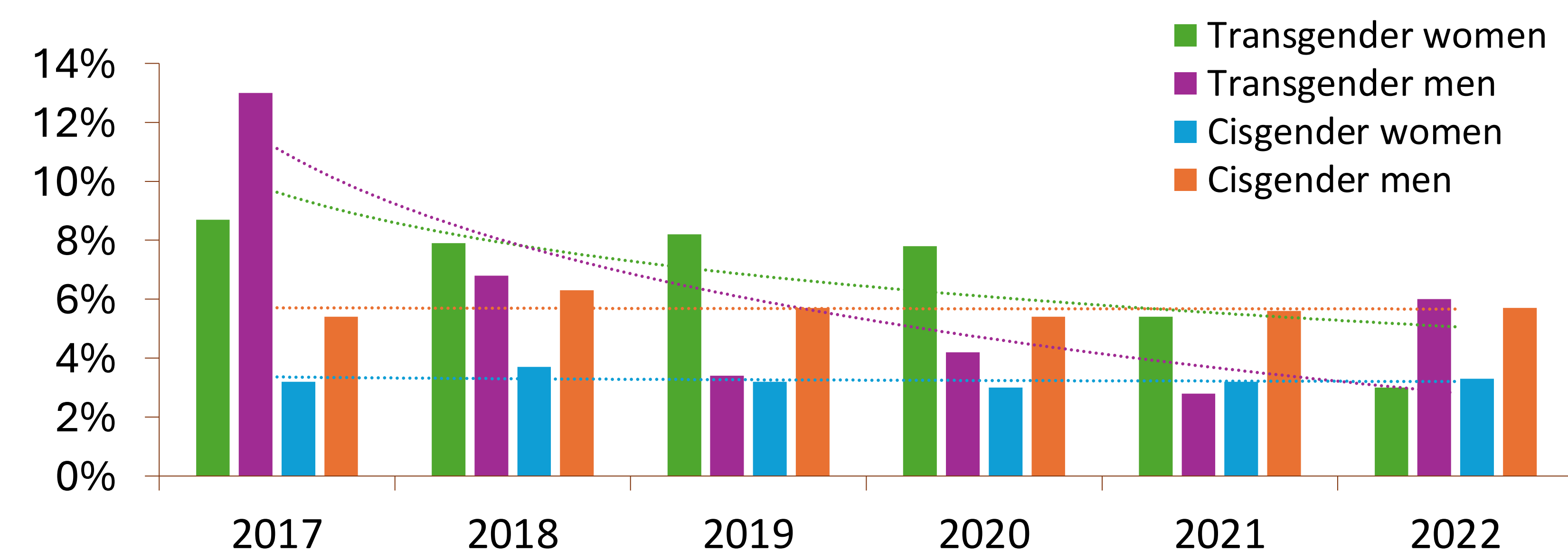


Figure 3. Crude ORs from logistic regression analyses identifying association between gender identity and MI

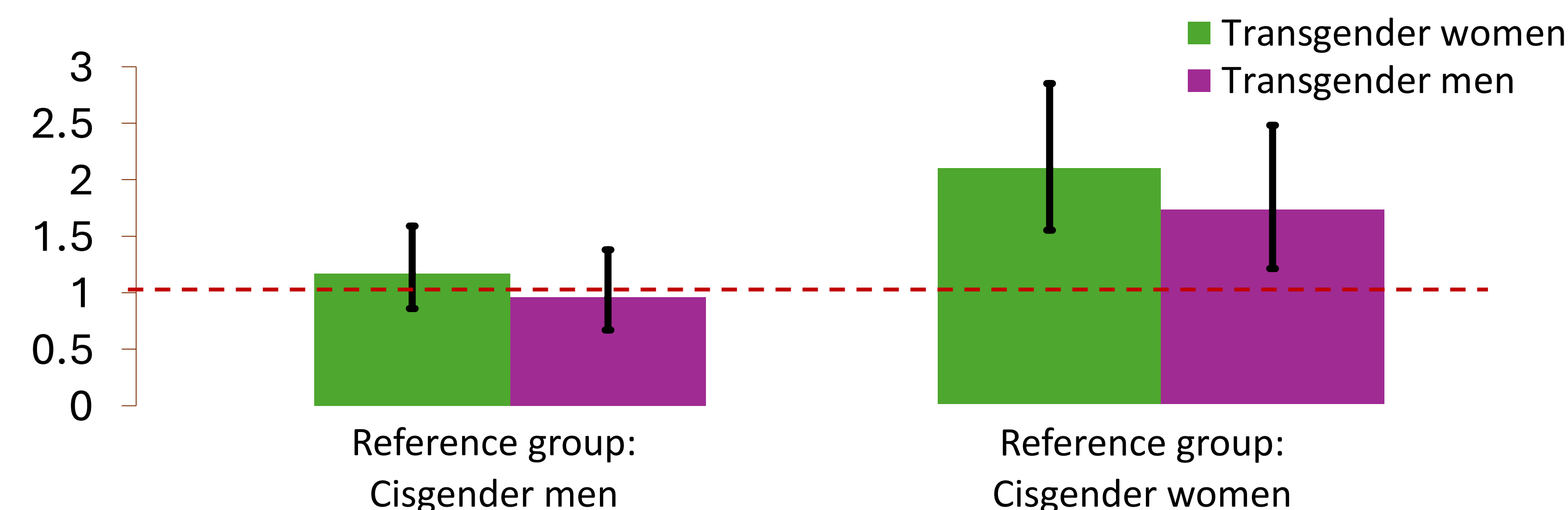
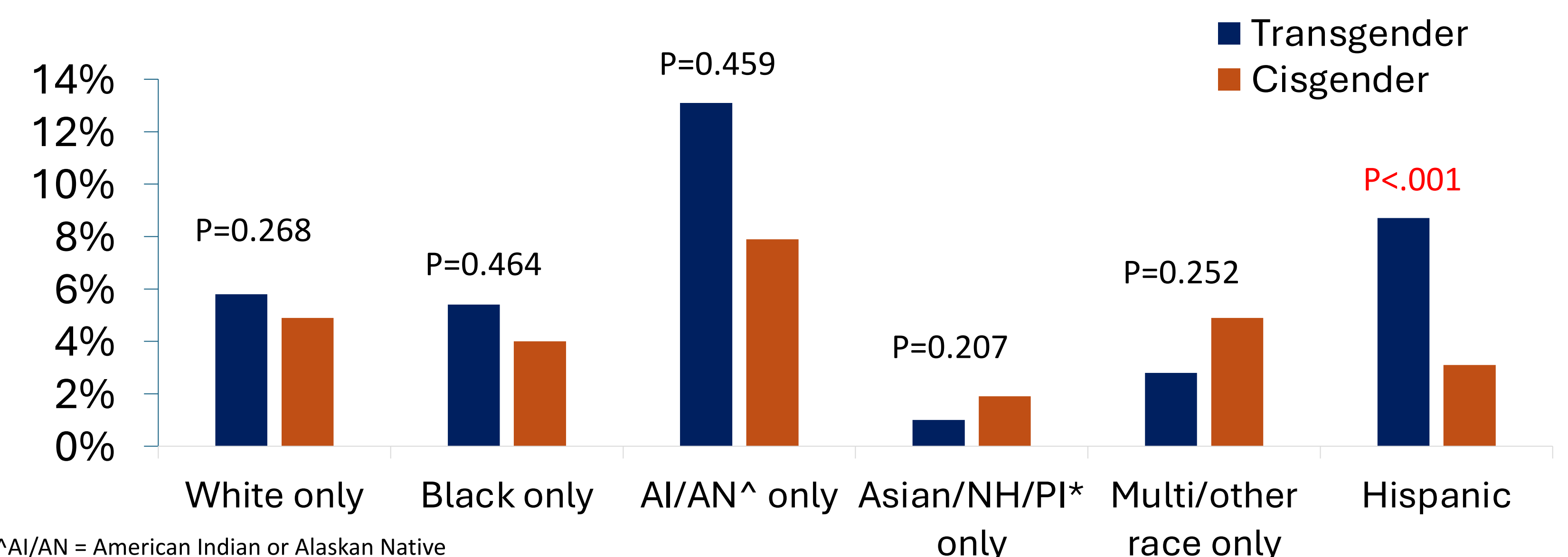


Figure 4. Prevalence rate of MI by race/ethnicity and gender identity from 2017 to 2022



<sup>^</sup>AI/AN = American Indian or Alaskan Native  
<sup>\*</sup>NH/PI = Native Hawaiian or Pacific Islander

## Results (Cont.)

**Table 1.** Logistic regression analyses for odds of MI in trans versus cis adults of the same race/ethnicity

Transgender	aOR (95% CI)
White	1.29 (0.83-2.00)
Black	2.66 (0.61-11.67)
AI/AN	0.65 (0.06-6.32)
Asian/NH/PI	<b>0.07 (0.01-0.57)</b>
Multiracial	<b>0.08 (0.02-0.40)</b>
Hispanic	<b>2.37 (1.08-5.20)</b>

**Table 2.** Logistic regression analyses for odds of MI in non-White trans versus White trans adults

Transgender	aOR (95% CI)
Black	0.91 (0.50-1.67)
AI/AN	<b>2.62 (1.33-5.16)</b>
Asian/NH/PI	<b>0.01 (0.001-0.13)</b>
Multiracial	<b>0.06 (0.008-0.38)</b>
Hispanic	1.47 (0.50-4.34)

Bolded text indicates statistical significance; covariates: survey year, age, BMI, exercise, smoking status, heavy drinking, hypertension, high cholesterol, diabetes, kidney disease, income, health care access, marital status, self-rated health, education, health coverage.<sup>1,5</sup>

## Conclusions

**Increased odds of reported MI in:**

**\*Hispanic trans** versus cis adults

**\*AI/AN trans** versus White trans adults

**Asian/NH/PI and multiracial trans adults** reported lower odds of MI

## Limitations

Self-reported data on prior CVD risk factors and events such as MI subject to recall bias

Data regarding prior or current use of gender-affirming hormone pharmacotherapy not available

Data regarding hypertension and high cholesterol obtained biennially (i.e., 2017, 2019, 2021 only)

## References

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