Alcohol Use in Transgender Diverse Individuals Significantly Associated with Greater Syndemic Risks

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INTRODUCTION

- **Transgender-gender-diverse (TGD)** individuals experience unique vulnerabilities to intimate partner violence (IPV) social marginalization, and health disparities.
- 1st study to explore social determinants of alcohol use in TGD in China.
- **Syndemics** (interaction between multiple health states/diseases) framework (definition below) was used to examine concurrent conditions: IPV, cyberbullying, transgender-related discrimination, and depression, in relation to alcohol use in TGD in China.
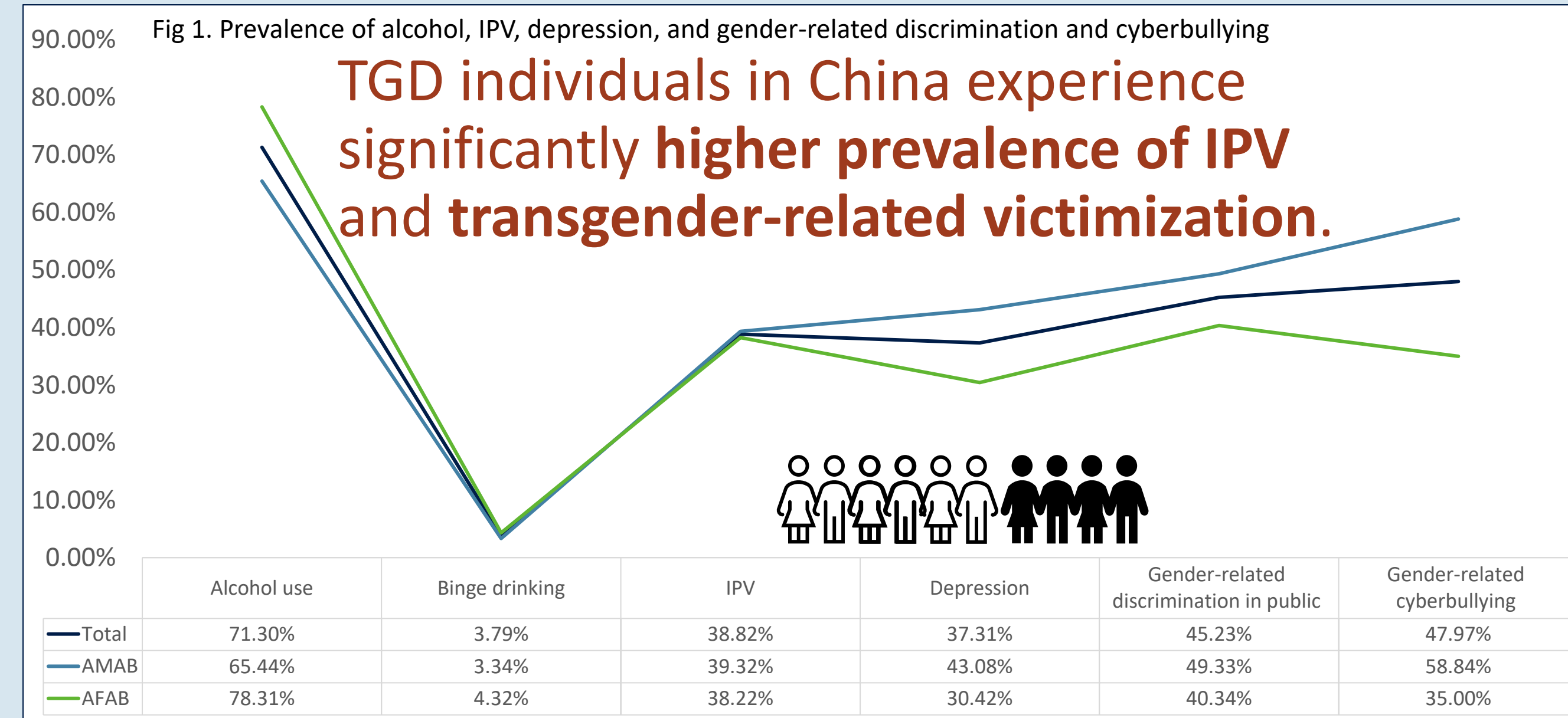
METHODS

- Chinese National Transgender Health Survey (CTHS)
- Cross-sectional self report questionnaire data collected between May-December 2021 in China in 23 provinces, 5 autonomous regions, and 4 municipalities.
- Logistic regression adjusted for age, education, annual household income, relationship status, smoking status
- Alcohol use: "How often did you drink alcohol in past year?"
- Binge drinking: "How likely you had ≥ 3 beers or 150ml/5.3oz of liquor with ALC 52% in the past year?"
- Syndemic risk factors (IPV, cyberbullying, daily discrimination, and depression)
- Stratified by assigned sex at birth.

	Total TGD
Gender identity	N=2589, N (%)
Trans men	662 (25.57)
Trans women	1050 (40.56)
Non-binary/genderqueer/GD	605 (23.57)
Cross-dresser	90 (3.48)
Uncertain	150 (5.79)
Other	32 (1.24)

	AMAB (N=1409; 54.53%)	AFAB (N=1180; 45.58%)
	N (%)	N (%)
Age (Mean: 23.57, SD: 5.71; range: 13-59)		
<18	112 (7.95)	88 (7.46)
18-24	863 (61.25)	643 (54.49)
25-34	355 (25.20)	390 (33.05)
≥35	79 (5.61)	59 (5.00)

RESULTS

AMAB: assigned male at birth; AFAB: assigned female at birth

Fig 1. Prevalence of alcohol, IPV, depression, and gender-related discrimination and cyberbullying

TGD individuals in China experience significantly higher prevalence of IPV and transgender-related victimization.

	Alcohol use	Binge drinking	IPV	Depression	Gender-related discrimination in public	Gender-related cyberbullying
Total	71.30%	3.79%	38.82%	37.31%	45.23%	47.97%
AMAB	65.44%	3.34%	39.32%	43.08%	49.33%	58.84%
AFAB	78.31%	4.32%	38.22%	30.42%	40.34%	35.00%

Alcohol use in TGD individuals (particularly in those assigned female sex at birth) is significantly associated with greater syndemic risks
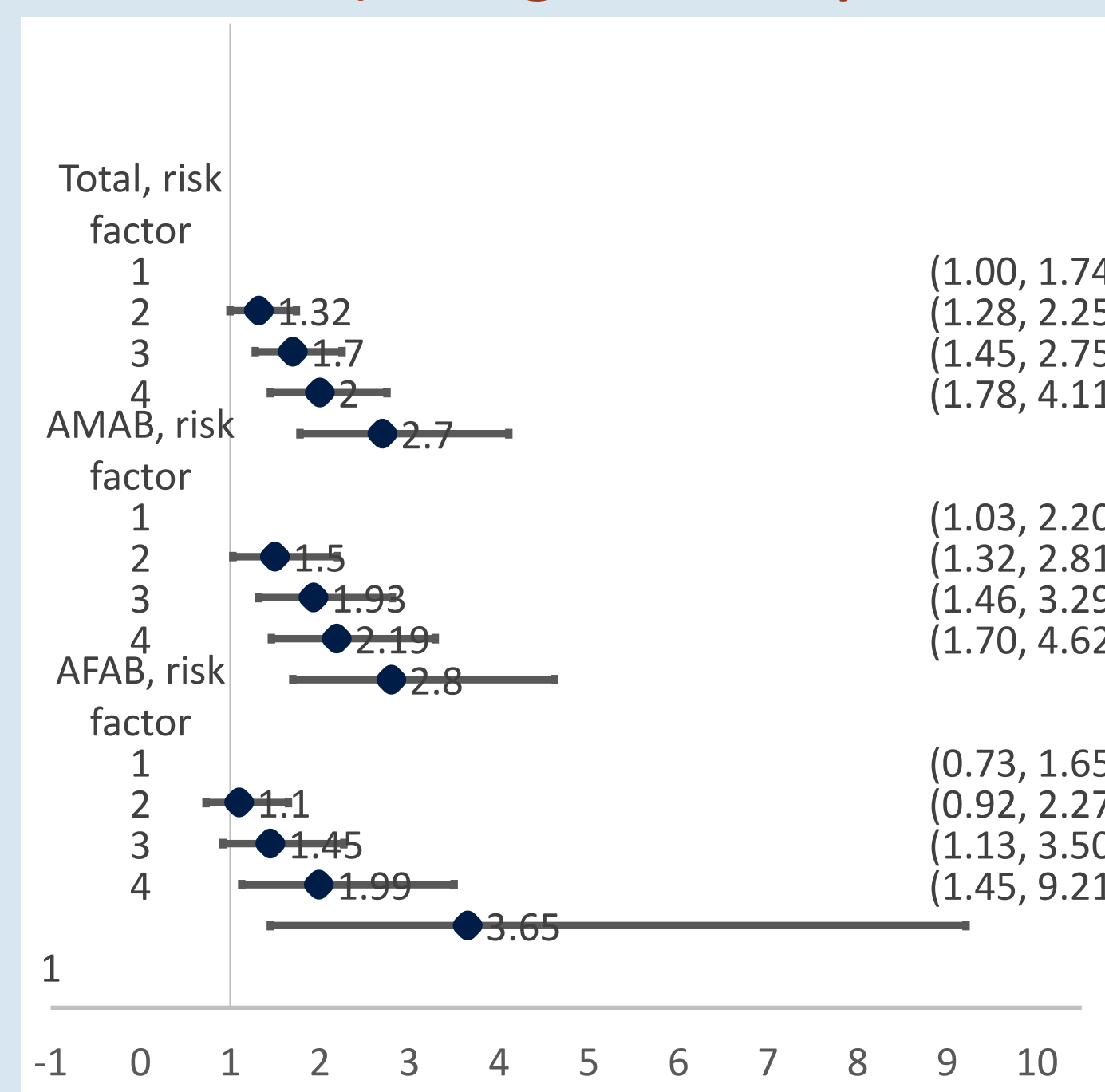

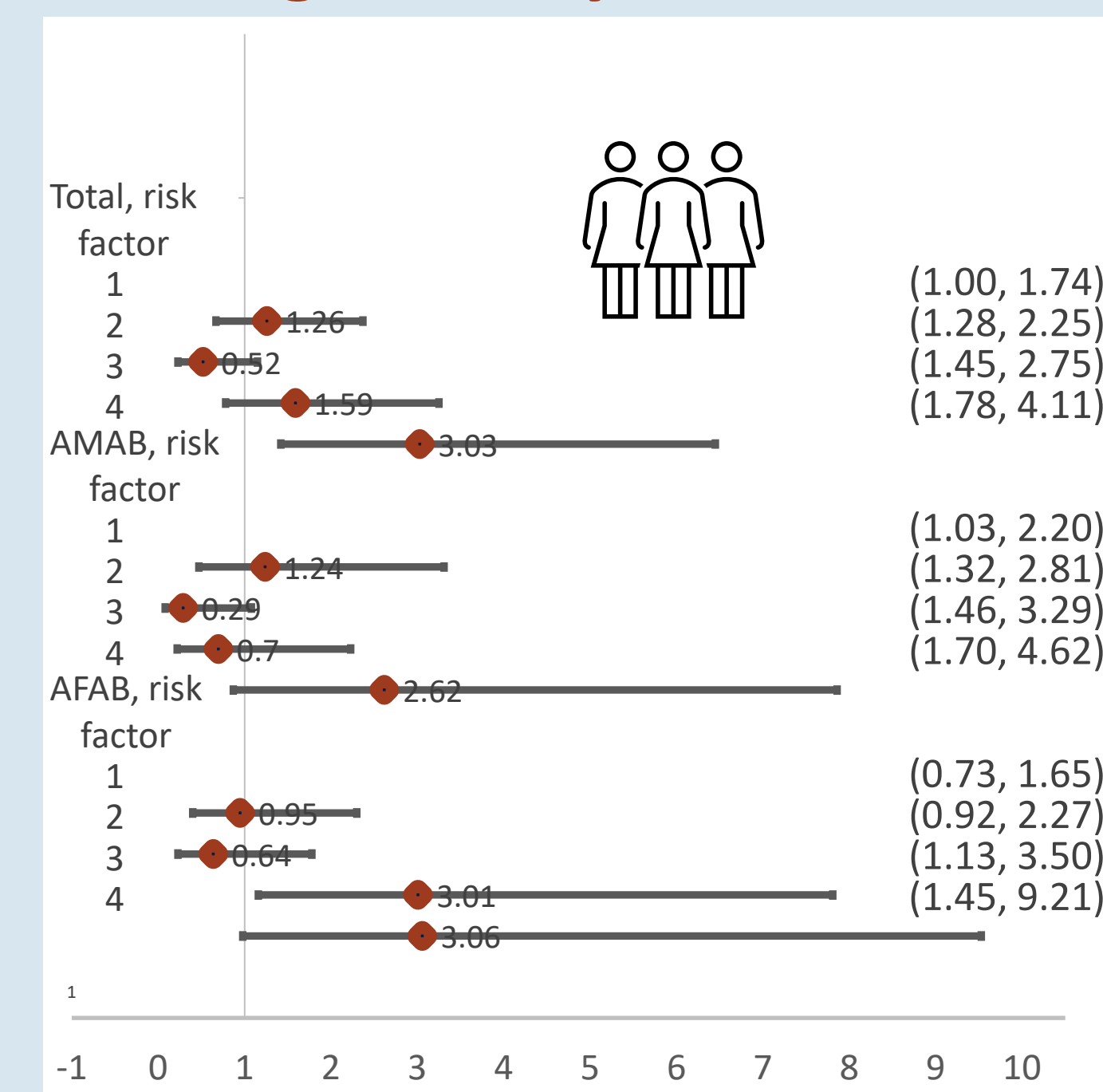Fig 3. Adjusted Odds Ratio for **alcohol use** by numbers of risk factors

Fig 4. Adjusted Odds Ratio for **binge drinking** by numbers of risk factors

CONCLUSION

- Evidence-based interventions urgently needed for TGD high-risk population with unique needs to
  - Reduce and prevent alcohol use esp. binge drinking
  - Identify and lower vulnerability to IPV and TG-related victimization.
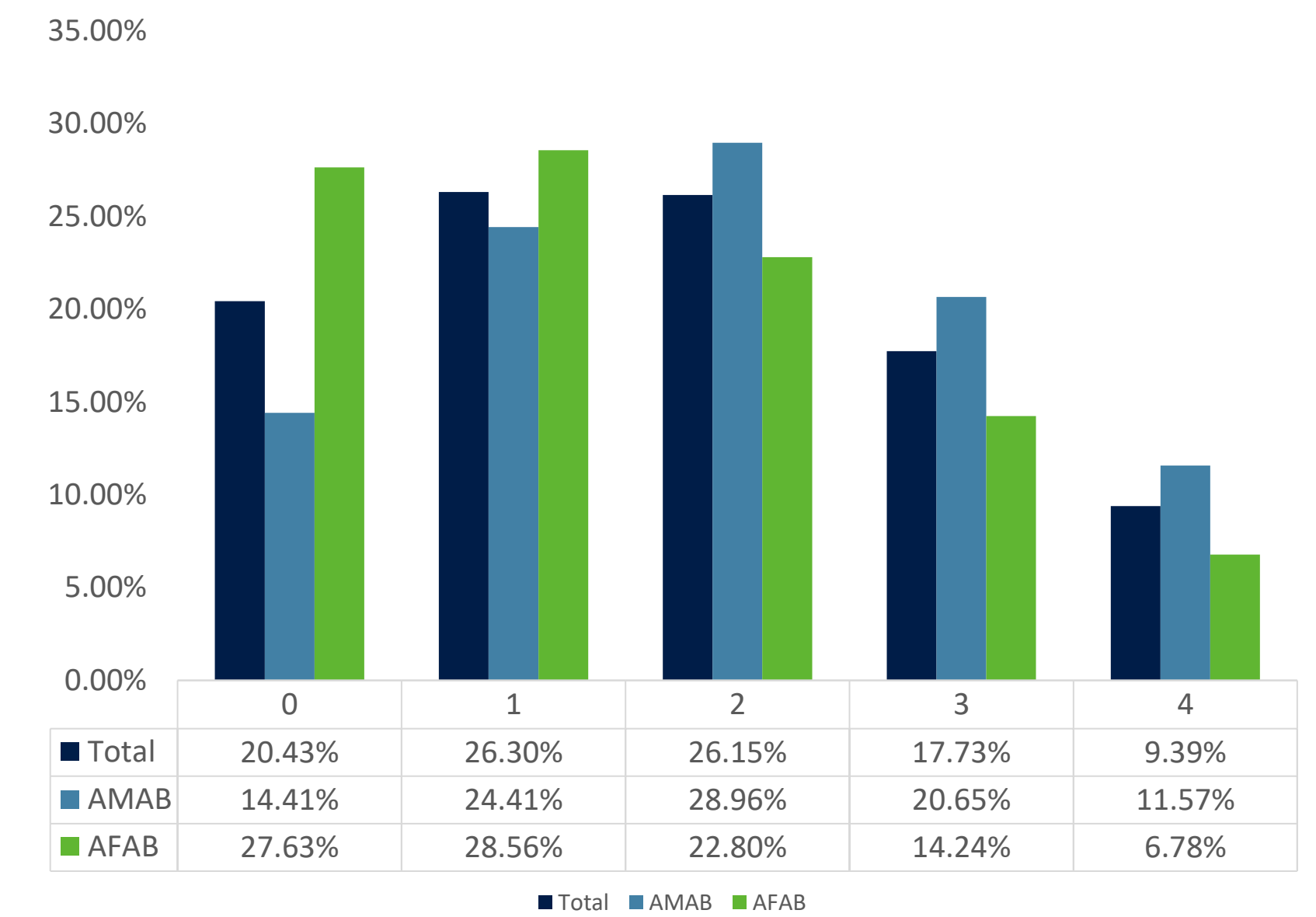 - Enhance health, wellness, social education, interpersonal- and individual-behavior interventions

	0	1	2	3	4
Total	20.43%	26.30%	26.15%	17.73%	9.39%
AMAB	14.41%	24.41%	28.96%	20.65%	11.57%
AFAB	27.63%	28.56%	22.80%	14.24%	6.78%

Fig 2. Syndemic Risk Factors Prevalence (%)

DISCLOSURES

All authors have no disclosures or conflict of interests

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ACKNOWLEDGEMENT

Syndemics: a conceptual framework used to comprehend health condition or illnesses that emerge within a group of people and are amplified by the surrounding social, economic, environmental, and political factors.