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The Prevalence of Cardio-Metabolic Conditions (Diabetes, Hypertension, and Obesity) Before and During COVID-19 and Association with Health and Sociodemographic Factors

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THE PREVALENCE OF CARDIO- METABOLIC CONDITIONS (DIABETES, HYPERTENSION, AND OBESITY) BEFORE AND DURING COVID-19 AND ASSOCIATION WITH HEALTH AND SOCIODEMOGRAPHIC FACTORS

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OUTLINE

- Introduction
- Study design and population
- Results
- Discussion and conclusion
- Acknowledgement
- References.



Source: <https://www.heart.org/en/about-us>

INTRODUCTION

Cardiometabolic conditions, including hypertension, diabetes and obesity, are associated with adverse health outcomes and increased morbidity and mortality.

There is little evidence on the burden of these conditions before and during the COVID-19 pandemic



- **Purpose of study**

- To determine the association between the cardiometabolic conditions and tobacco use, physical activity, anxiety/depression and sociodemographic characteristics among U.S. adults during the COVID-19 pandemic.

STUDY DESIGN AND POPULATION

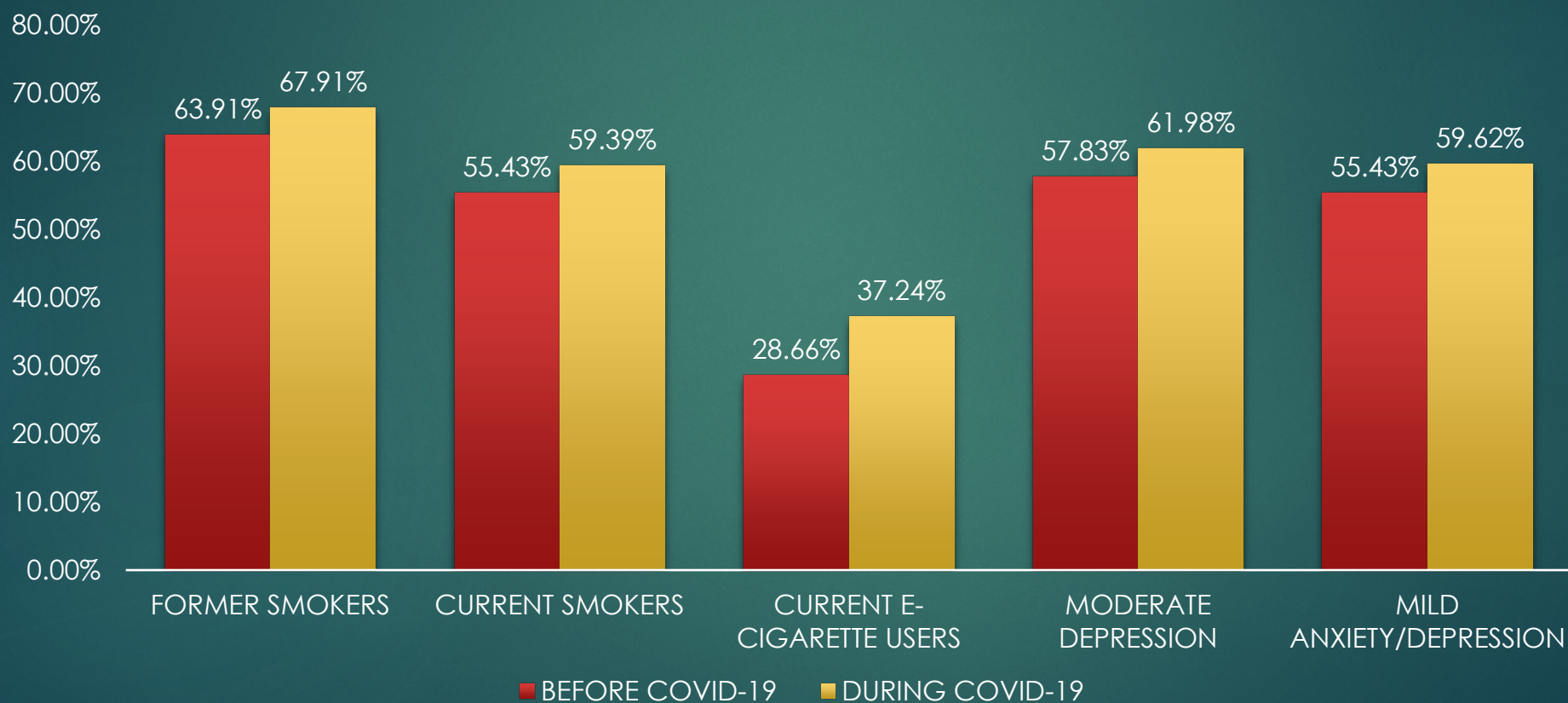
- Nationally representative data – Health Information National Trends Surveys (HINTS)
- Data from the 2019 (N=5359) and 2020 (N =3830) HINTS were used.

Analysis

- Weighted descriptive statistics and multivariable logistic regression using SAS 9.4

RESULTS

PREVALENCE OF CARDIOMETABOLIC OUTCOMES BEFORE AND DURING THE PANDEMIC



RESULTS

	BEFORE THE COVID-19		DURING THE COVID-19 PANDEMIC	
	AOR	95% CI	AOR	95% CI
ANXIETY/DEPRESSION SYMPTOMS				
Mild	1.52*	(1.06, 2.19)	1.55*	(1.01, 2.38)
CIGARETTE SMOKING STATUS				
Former smoker	1.38*	(1.01, 1.87)	1.57**	(1.10, 2.25)
E-CIGARETTE SMOKING STATUS				
Current user	0.44*	(0.23, 0.85)	0.63	(0.30, 1.30)
Moderate physical activity intensity				
At least one day per week	0.64**	(0.46, 0.88)	0.58***	(0.42, 0.79)

AOR= Adjusted odds ratio. 95% CI = 95% confidence interval. Ref = Reference group. *p ≤0.05, **p ≤0.01, ***p ≤ 0.001.

DISCUSSION

- Having a diagnosis of mild anxiety/depression is associated with statistically significant higher odds of cardiometabolic conditions during the pandemic.
- Former smokers had 19% higher odds of cardiometabolic conditions when compared to never smokers during the pandemic.
- Surprisingly, odds of having a cardiometabolic condition were lower for current e-cigarette users compared to never e-cigarette users before the pandemic.

DISCUSSION AND CONCLUSION



- Observed increase in prevalence and risk of having cardiometabolic conditions underscores the need for smoking cessation and effective mental health treatment programs.
- Longitudinal study on the risk of e-cigarette use on cardiometabolic conditions.

ACKNOWLEDGEMENT

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REFERENCES

- ▶ Sakakibara, B. M., Obembe, A. O., & Eng, J. J. (2019). The prevalence of cardiometabolic multimorbidity and its association with physical activity, diet, and stress in Canada: evidence from a population-based cross-sectional study. *BMC public health*, 19(1), 1-9.
- ▶ Tornhammar, P., Jernberg, T., Bergström, G., Blomberg, A., Engström, G., Engvall, J., ... & Ueda, P. (2021). Association of cardiometabolic risk factors with hospitalisation or death due to COVID-19: population-based cohort study in Sweden (SCAPIS). *BMJ open*, 11(9), e051359.