

Quitting in the time of Covid?

Associations of the pandemic with changes in smoking, drinking, and quitting in England

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BACKGROUND

**STAY AT
HOME**



**PROTECT
THE *NHS***



**save
lives**

[NHS.UK/coronavirus](https://www.nhs.uk/coronavirus)

How might the pandemic have affected smoking and drinking?

Potential positive impacts

- Teachable moment prompts behaviour change
- Disrupted routines make it easier to break habits
- Less social smoking/drinking

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Potential negative impacts

- High stress and boredom trigger smoking/drinking
- Lack of support provides barrier to behaviour change

Different effects on smoking and drinking?

- Campaigns encouraged smokers to quit for Covid
- No such campaigns targeting alcohol use
- Off licences remained open as 'essential' businesses
- Virtual social activities made it possible for people to continue to drink socially



Different effects on different sociodemographic groups?

Age

- Older people more worried about becoming seriously ill from Covid-19
- Younger people more stressed, say lives changed more due to the pandemic, and feel more socially isolated

Sex

- Women experienced higher rates of job loss, took on disproportionate share of housework, childcare and homeschooling during lockdown

Socioeconomic position

- Inequalities worsened by the pandemic, lower paid workers less able to work from home, more likely to be exposed to the virus

Aim

To estimate changes in smoking, drinking and quitting behaviour from before to during the first COVID-19 lockdown in England, and whether changes differed by age, sex, or socioeconomic position



METHODS

Design



Smoking and Alcohol Toolkit Studies

Study design: repeat cross-sectional survey, $n \sim 1700$ /month

Timing: August 2018 through July 2020

*No data collected March 2020: lockdown restrictions in the UK were introduced on 23 March and eased on 4 July

Analysed sample: 36,980 adults (≥ 18 y)

Data weighting: applied to match the English population profile on age, social grade, region, tenure, ethnicity and working status within sex

Measures: exposure

Timing of the Covid-19 lockdown

Pandemic
year

2019					2020						
Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July
0	0	0	0	0	0	0		1	1	1	1
before lockdown							vs.	during lockdown			

Comparator
year

2018					2019						
Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July
0	0	0	0	0	0	0		1	1	1	1
before lockdown							vs.	during lockdown			

interaction: survey month (0 vs. 1) x survey year (pandemic vs. comparator)

Measures: outcomes

Smoking outcomes:

- Current smoking (all adults)
- Quit attempts, cessation (past-year smokers)
- Quit success, use of evidence-based and remote support (past-year smokers who made a quit attempt)

Drinking outcomes:

- High-risk drinking – AUDIT-C ≥ 5 (all adults)
- Alcohol reduction attempts (high-risk drinkers)
- Use of evidence-based and remote support (high-risk drinkers who made a reduction attempt)

Measures: covariates

Sociodemographic characteristics

- Age ← potential moderators
- Sex ← potential moderators
- Social grade (ABC1, C2DE) ←
- Region in England (North, Central, South, London)

Nicotine and alcohol dependence

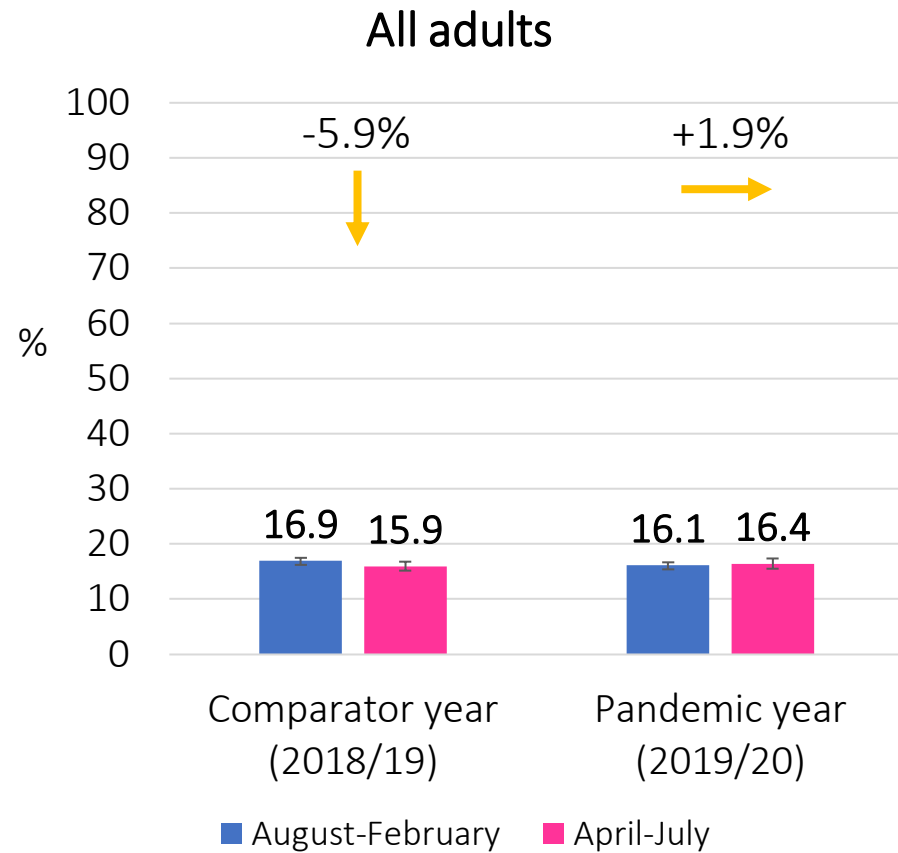
- Heaviness of smoking index (for analyses of cessation, quit success, use of support)
- Full AUDIT score (for analyses of use of support)

Time trends

- Within year (i.e. from Aug = 1 through July = 12)
- Across the entire time series (i.e. from Aug 2018 = 1 through July 2020 = 24)

RESULTS: SMOKING OUTCOMES

Results: **current smoking**

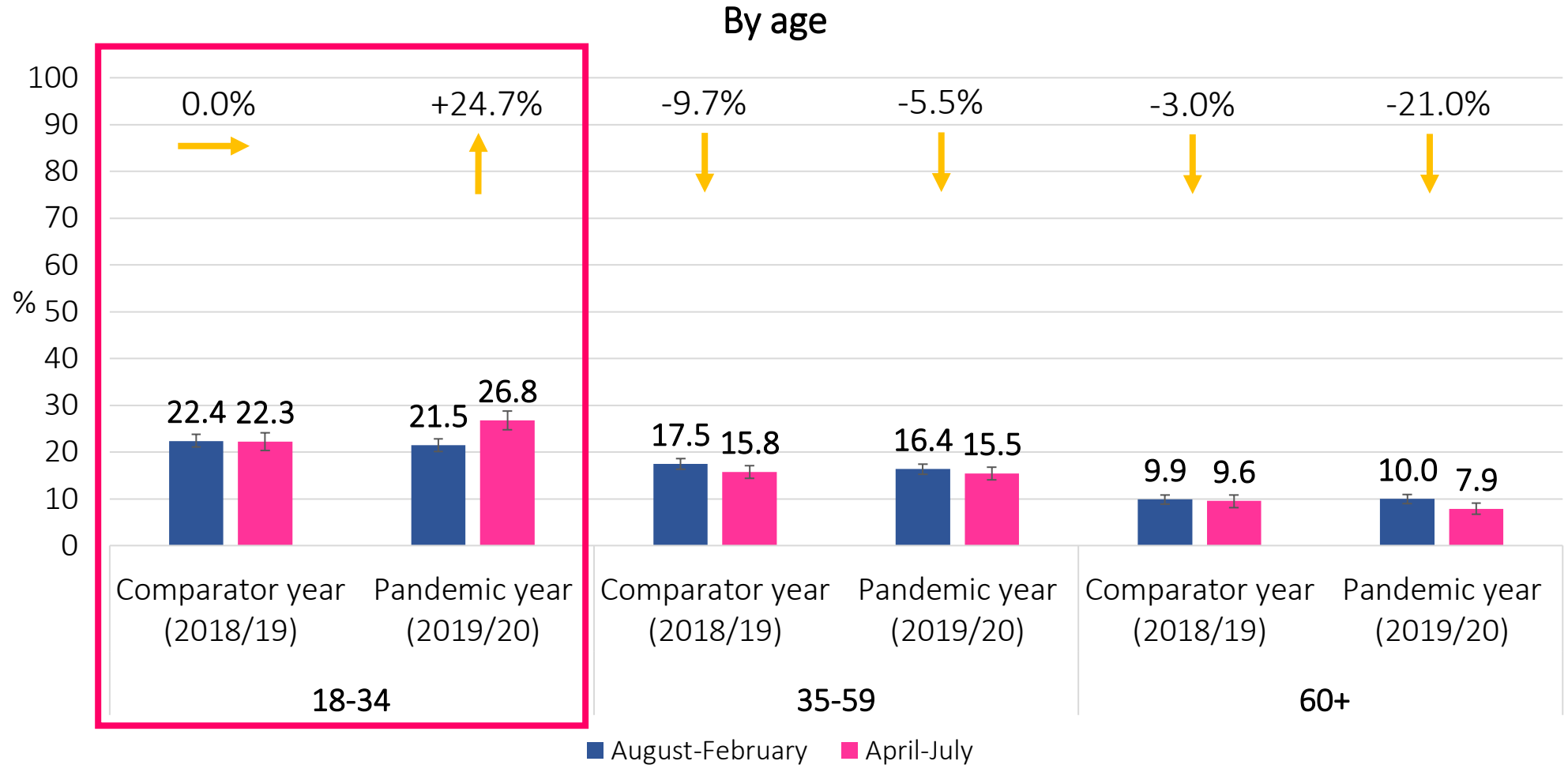


OR 1.09 (95% CI 0.97–1.23), p=0.288

Evidence of moderation
(3-way interaction)

- ✓ Age
- ✗ Sex
- ✗ Social grade

Results: current smoking

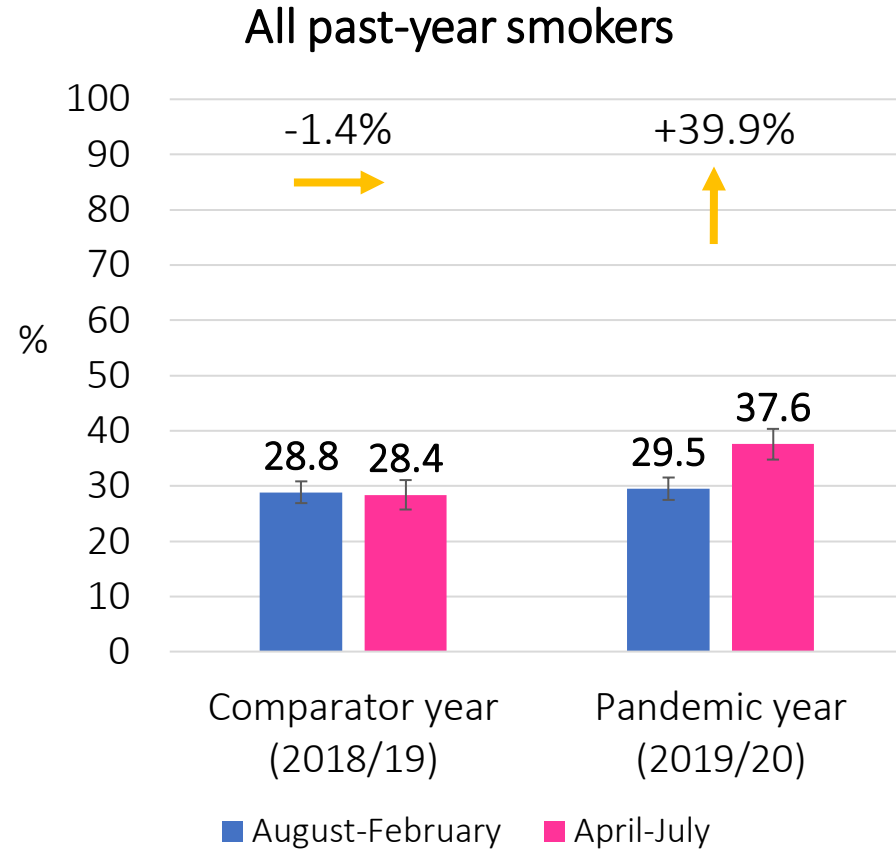


OR 1.35 (95% CI 1.12–1.63), p=0.008

OR 1.06 (95% CI 0.89-1.28), p=0.759

OR 0.81 (95% CI 0.61-1.07), p=0.288

Results: quit attempts

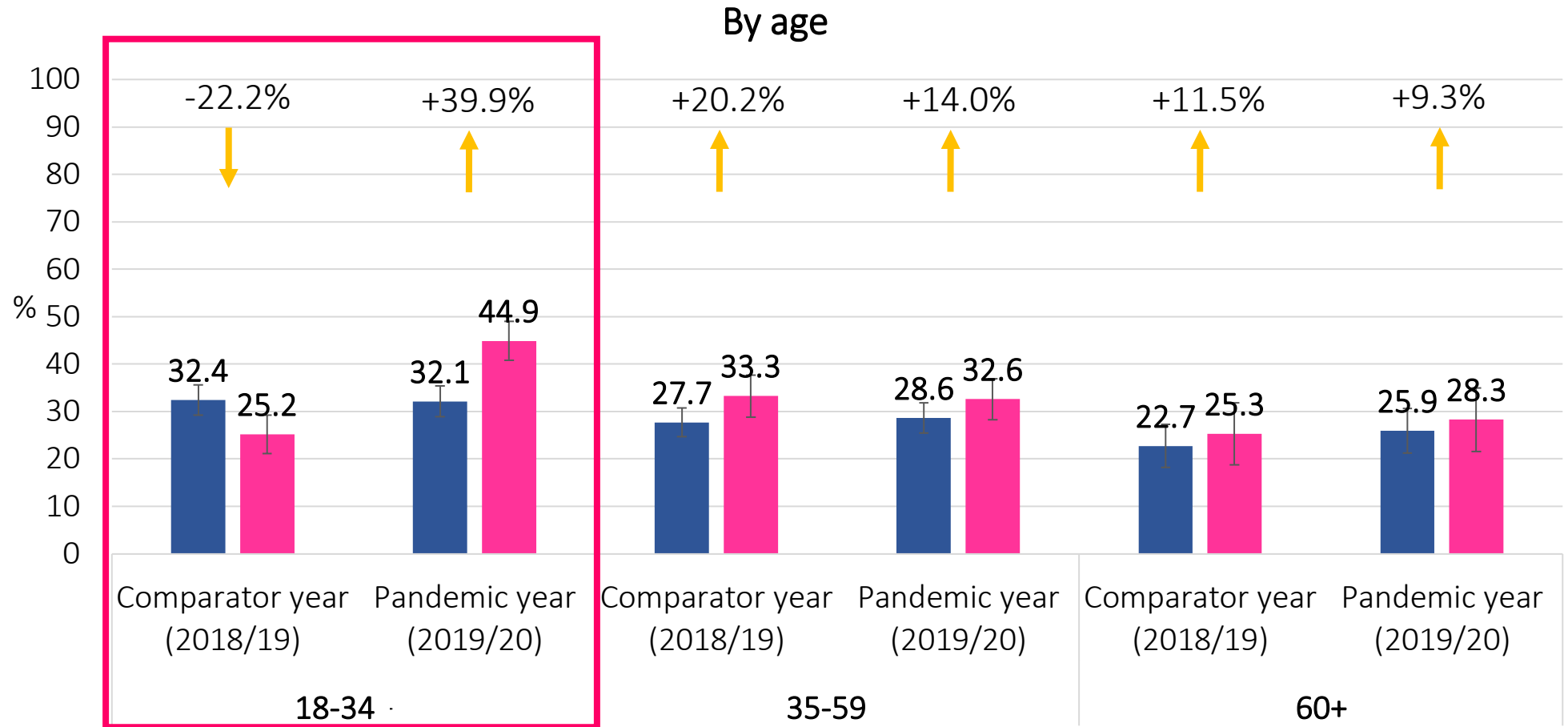


OR 1.45 (95% CI 1.16–1.81), p=0.004

Evidence of moderation
(3-way interaction)

- ✓ Age
- ✗ Sex
- ✗ Social grade

Results: quit attempts



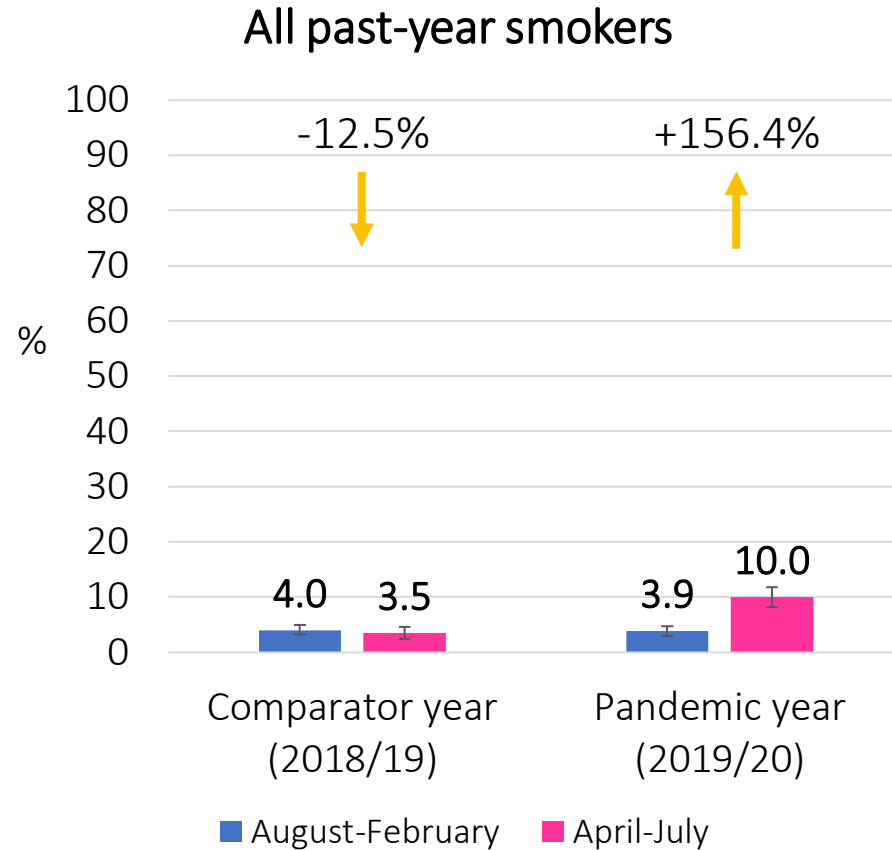
OR 2.48 (95% CI 1.76-3.50), p<0.001

OR 0.92 (95% CI 0.65-1.32), p=0.805

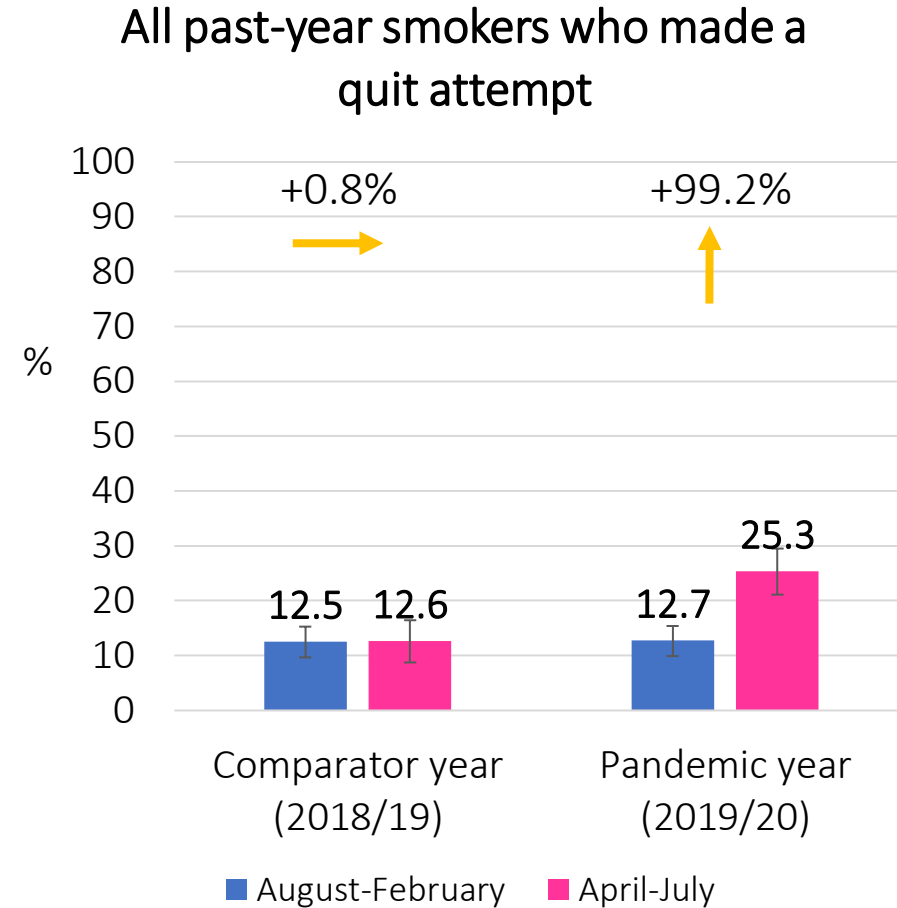
OR 0.96 (95% CI 0.53-1.75), p=0.935

Results: smoking cessation

- Age
- Sex
- Social grade



OR 3.08 (95% CI 1.86–5.09), p<0.001

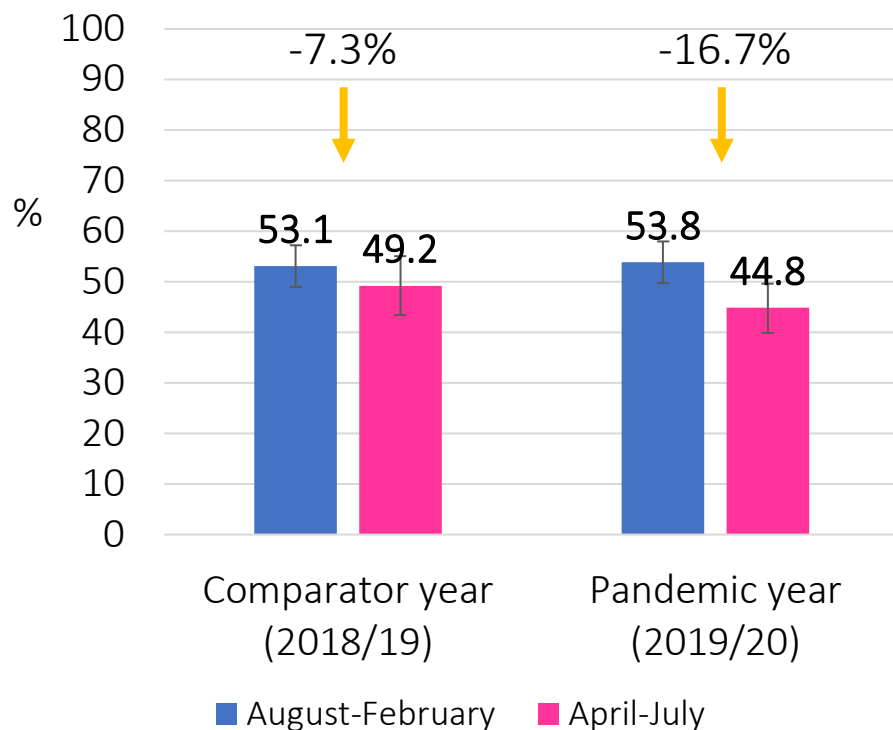


OR 2.29 (95% CI 1.31–3.98), p=0.009

Results: use of support for smoking cessation

- Age
- Sex
- Social grade

All past-year smokers who made a quit attempt

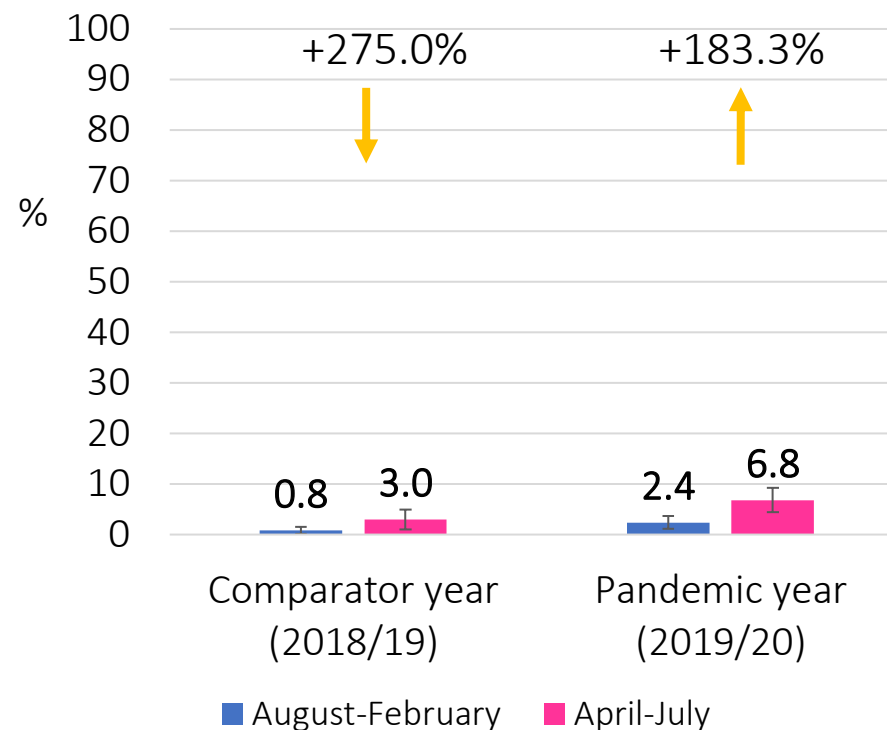


Evidence-based support

[behavioural support, medication Rx, NRT, e-cigarettes]

OR 0.94 (95% CI 0.63–1.41), p=0.852

All past-year smokers who made a quit attempt



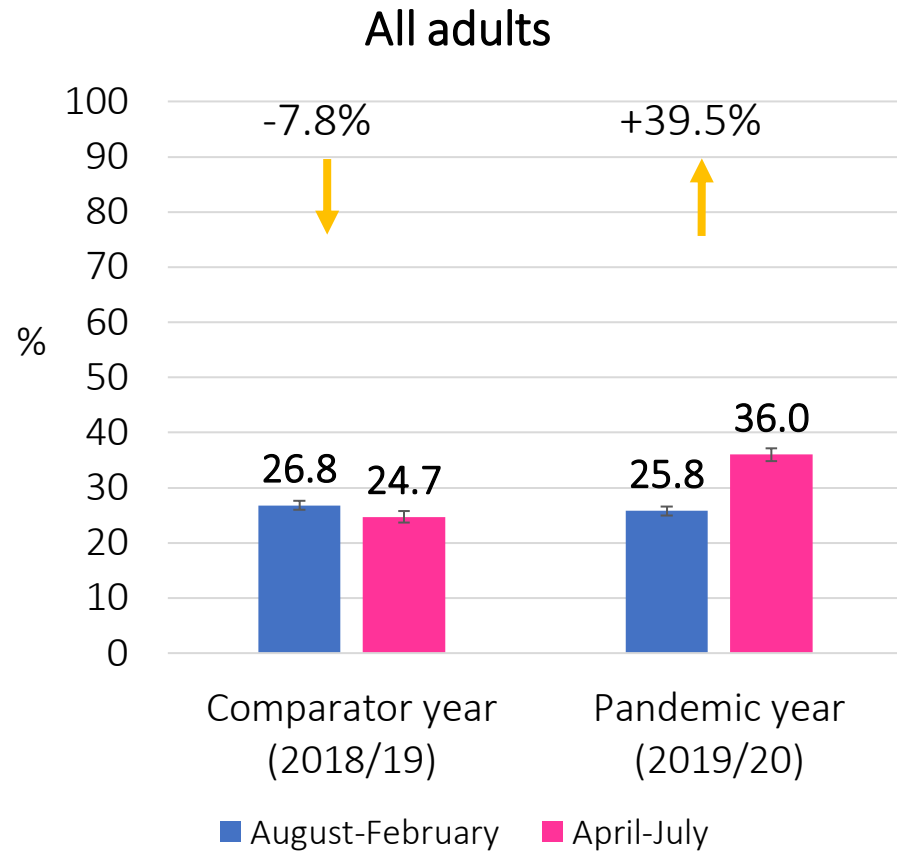
Remote support

[websites, telephone support, apps]

OR 0.71 (95% CI 0.19–2.73), p=0.805

RESULTS: DRINKING OUTCOMES

Results: high-risk drinking

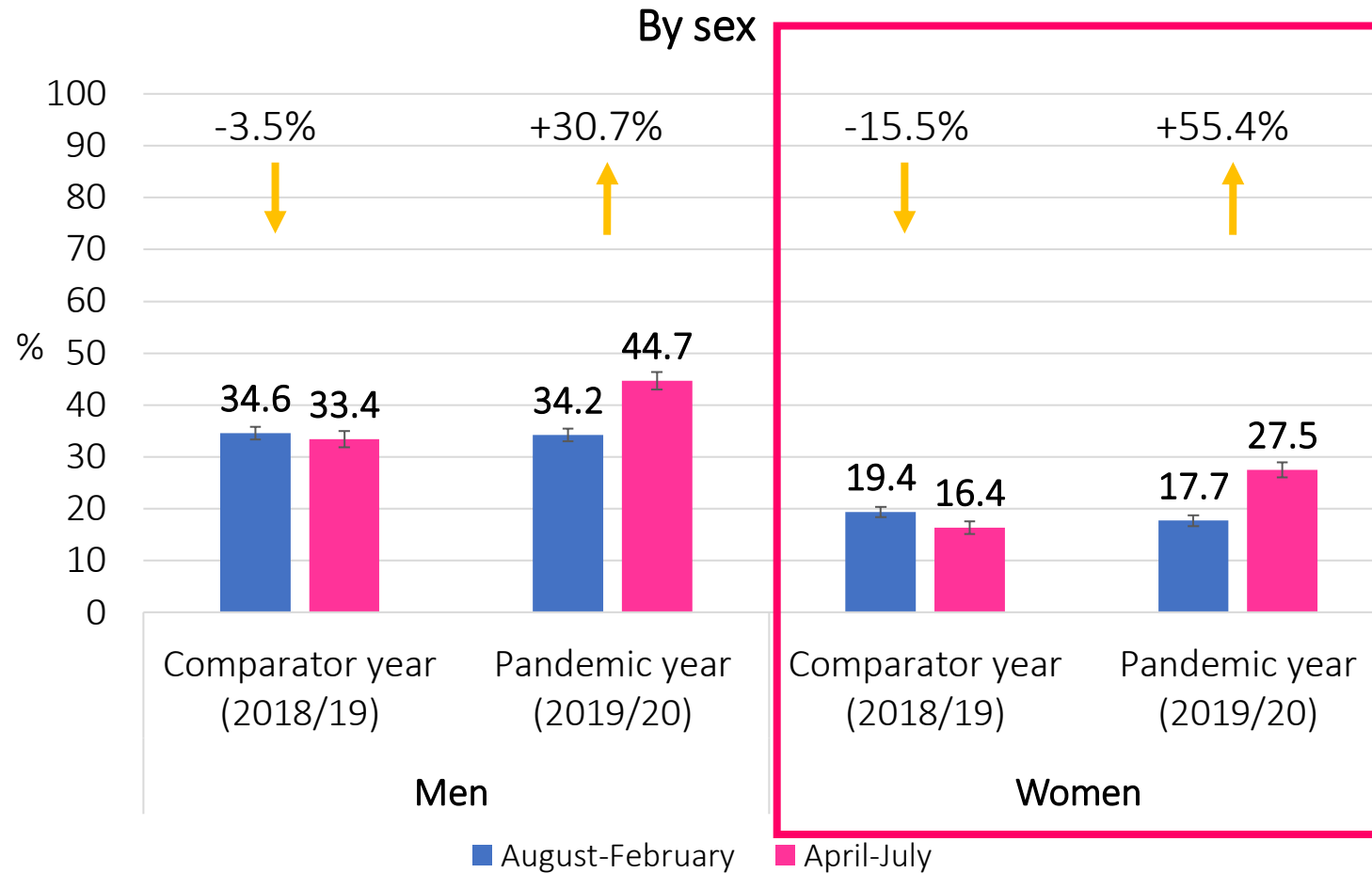


OR 1.80 (95% CI 1.64-1.98), p<0.001

Evidence of moderation
(3-way interaction)

- ✗ Age
- ✓ Sex
- ✓ Social grade

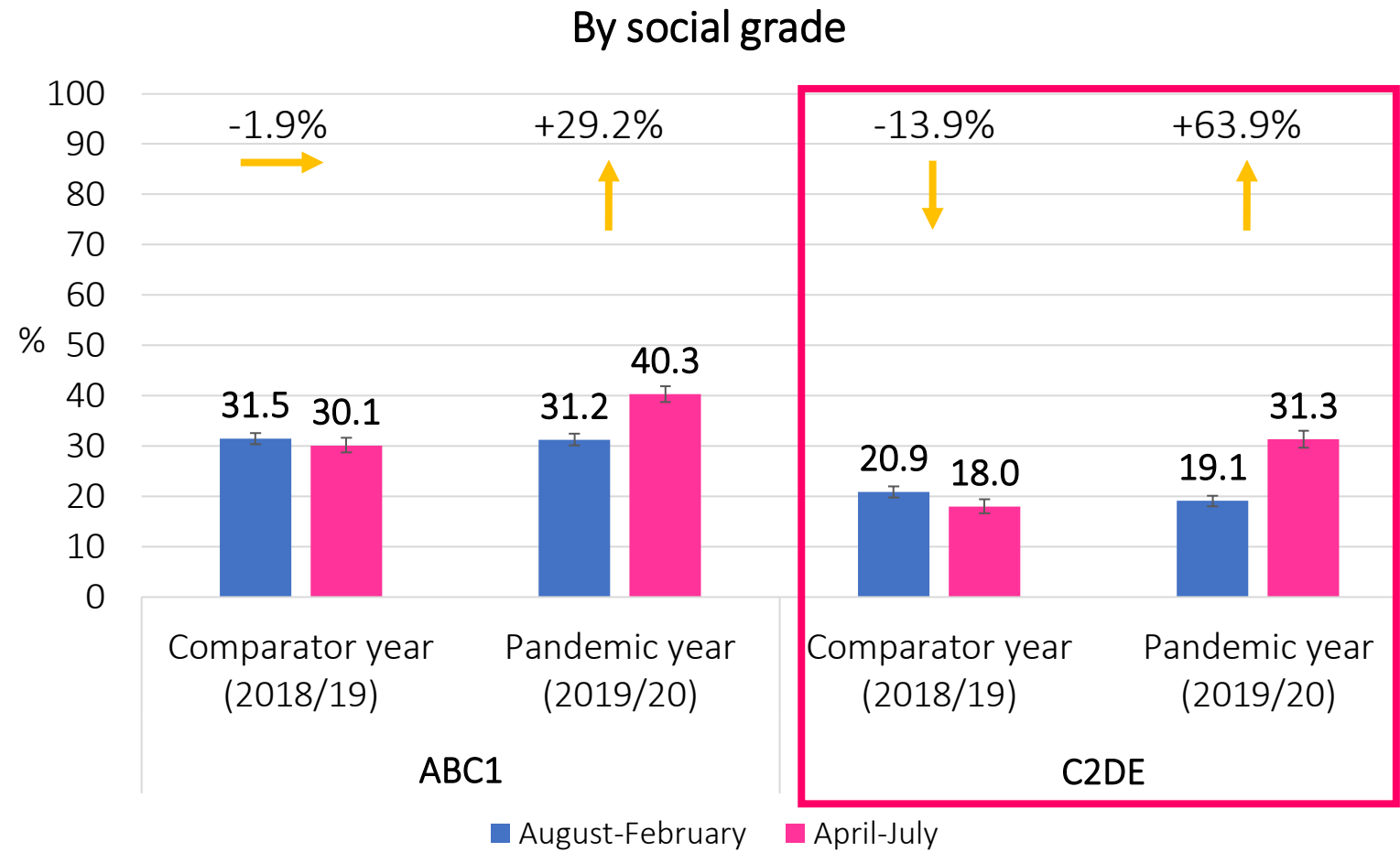
Results: high-risk drinking



OR 1.64 (95% CI 1.45-1.87), $p < 0.001$

OR 2.17 (95% CI 1.87-2.53), $p < 0.001$

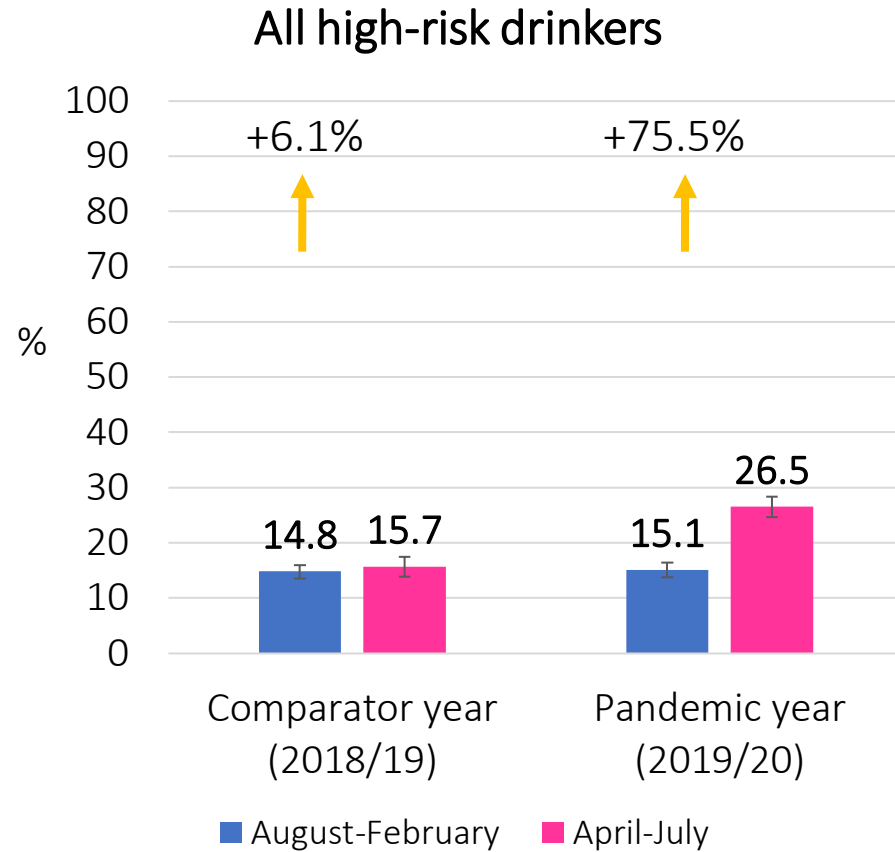
Results: high-risk drinking



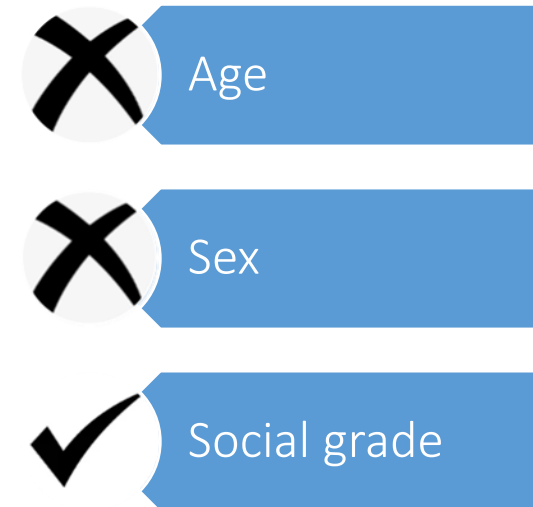
OR 1.58 (95% CI 1.40-1.79), $p < 0.001$

OR 2.34 (95% CI 2.00-2.74), $p < 0.001$

Results: alcohol reduction attempts

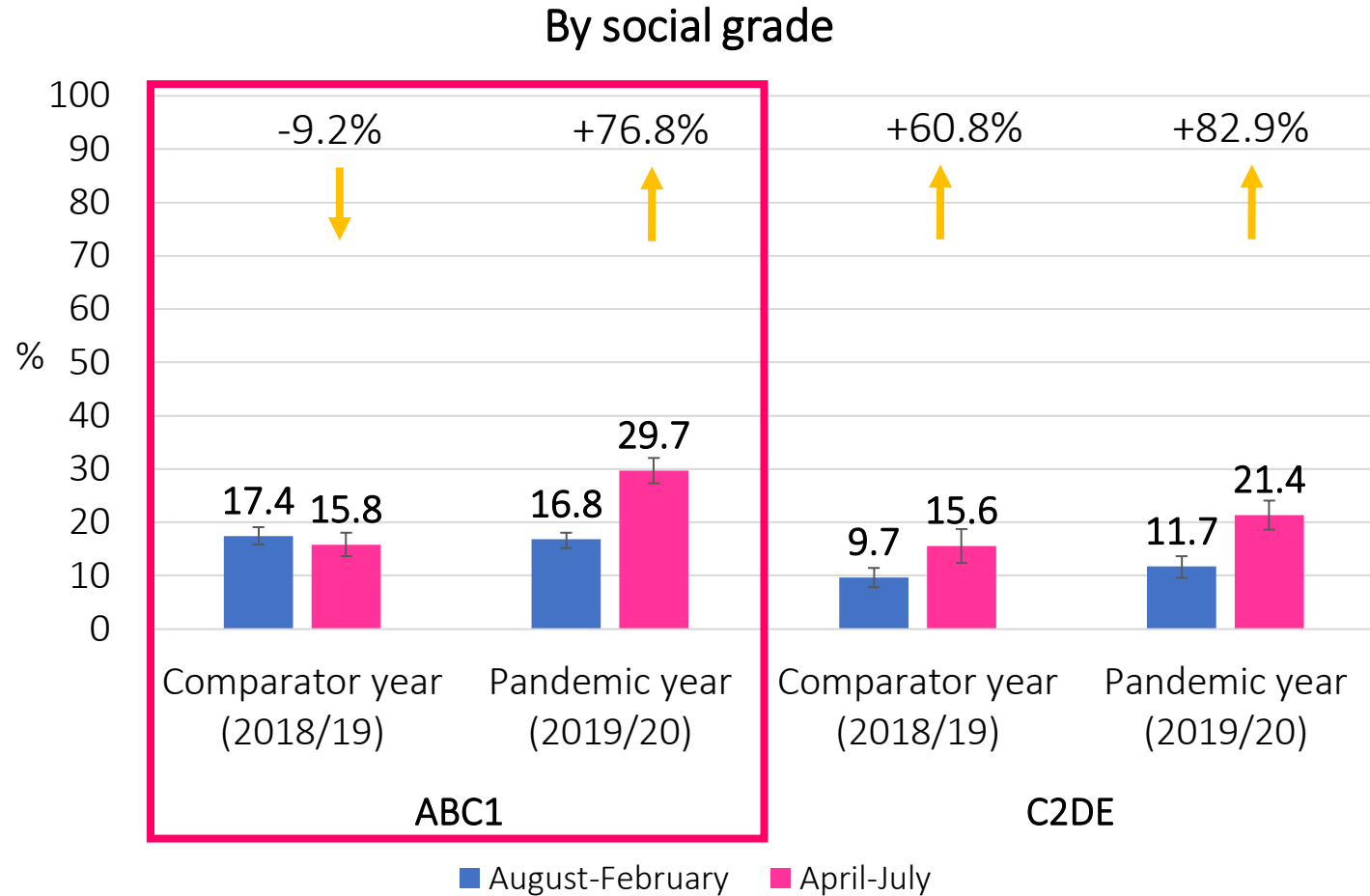


Evidence of moderation
(3-way interaction)



OR 1.95 (95% CI 1.57-2.43), p<0.001

Results: alcohol reduction attempts

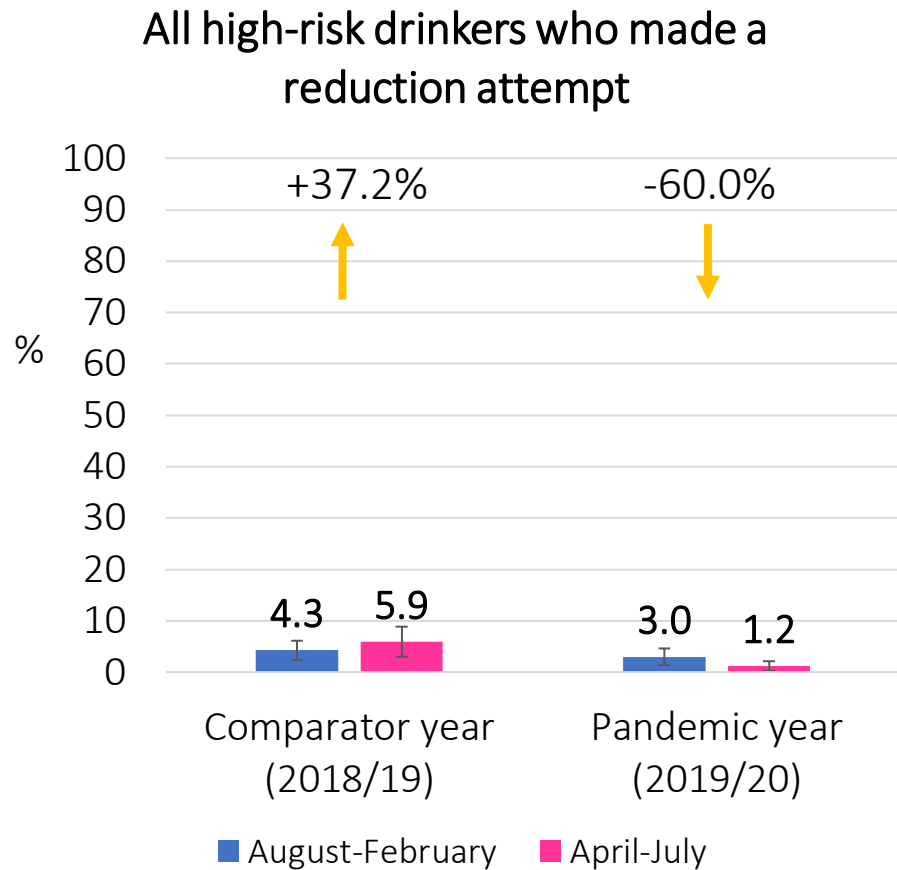


OR 2.31 (95% CI 1.78-3.00), p<0.001

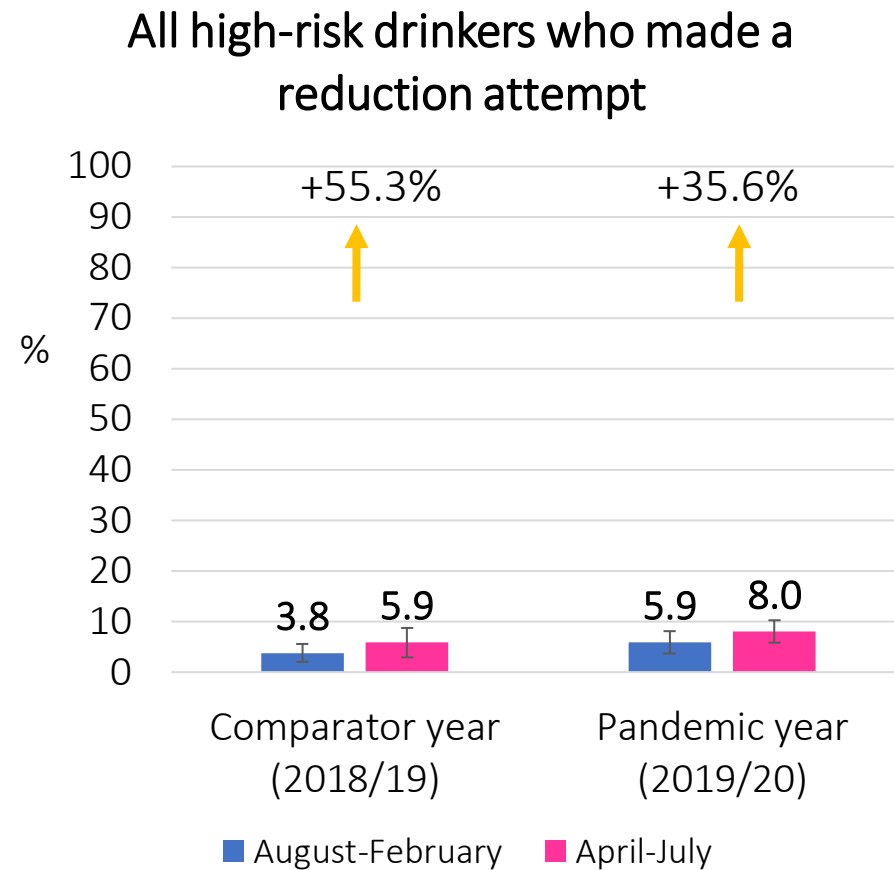
OR 1.25 (95% CI 0.83-1.88), p=0.499

Results: use of support for alcohol reduction

- Age
- Sex
- Social grade



Evidence-based support
 [behavioural support, medication Rx]
 OR 0.39 (95% CI 0.11-1.45), p=0.326



Remote support
 [websites, telephone support, apps]
 OR 1.08 (95% CI 0.94-1.24), p=0.499

CONCLUSIONS

Conclusions

- In England, the first COVID-19 lockdown was associated with **increased smoking prevalence among younger adults** and an **increased prevalence of high-risk drinking** among all sociodemographic groups.
- **Smoking cessation activity increased**: more younger smokers made quit attempts during lockdown and more smokers quit successfully.
- However, there were **socioeconomic disparities in patterns of drinking behaviour**: high-risk drinking increased by more among women and those from less advantaged social grades, but the rate of alcohol reduction attempts increased only among the more advantaged social grades.

Implications

- Lockdown restrictions may have adversely affected population health through the increased prevalence of high-risk drinking and increased uptake of or relapse to smoking among younger adults.
- With greater increases in high-risk drinking among less advantaged social grades and increased alcohol reduction attempts only among more advantaged social grades, socioeconomic inequalities in health may worsen as a result of lockdown-associated drinking.
- It will be important to monitor the extent to which changes in smoking and drinking during lockdown are sustained during the medium and long term in order to evaluate the full public health impact of the pandemic and help to tailor future harm reduction interventions.

- Jackson SE, Garnett C, Shahab L, Oldham M, Brown J. Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England: an analysis of 2019–20 data. *Addiction*. 2021; 116(5): 1233-44. DOI: <https://doi.org/10.1111/add.15295>
- Jackson SE, Beard E, Angus C, Field M, Brown J. Moderators of changes in smoking, drinking and quitting behaviour associated with the first COVID-19 lockdown in England. *Addiction*. Early view. DOI: <https://doi.org/10.1111/add.15656>

www.smokinginengland.info www.alcoholinengland.info