Factors associated with changes in consumption among smokers and alcohol drinkers during the COVID-19 'lockdown' period

Ciara M. E. Reynolds* ![ORCID] , *Joanna Purdy, Lauren Rodriguez, Helen McAvoy

Policy Team, Institute of Public Health, Dublin, Ireland

Correspondence: Ciara M. E. Reynolds, 700 South Circular Road, Dublin 8, D08 NH90, Ireland, Tel: +353851033139, e-mail: ciara.reynolds@publichealth.ie

Background: The impact of the COVID-19 public health social measures (PHSM) on health behaviours is poorly understood. We aimed to identify factors associated with changes in alcohol and tobacco consumption during the strictest period of PHSM 'lockdown'. **Methods:** Logistic regression analysis was conducted using secondary data from the Central Statistics Office Social Impact Survey collected during the first lockdown in Ireland (23 April– 1 May 2020). **Results:** Of the 1362 (33.8%) individuals that responded to the survey, 80.6% were current drinkers and 26.0% were smokers. The majority of smokers (60.9%) and drinkers (60.6%) reported no change in consumption. However, 30.5% of smokers and 22.2% of drinkers reported increased consumption. Being concerned about household stress from confinement [adjusted odds ratio (aOR) 1.9, 95% confidence interval (CI) 1.3–2.9, $P = 0.002$], working from home (aOR 2.1, 95 CI 1.4–3.3, $P < 0.001$) and urban living (aOR 2.0, 95% CI 1.5–2.9, $P < 0.001$) were associated with increases in alcohol consumption. Feeling very nervous (aOR 2.2, 95% CI 1.2–4.0, $P = 0.009$), feeling downhearted/depressed (aOR 2.4, 95% CI 1.3–4.4, $P = 0.004$), being concerned about someone else's health (aOR 2.0, 95% CI 1.1–3.9, $P = 0.031$), working from home (aOR 2.3, 95% CI 1.0–5.3, $P = 0.046$) and increases in alcohol consumption (aOR 3.6, 95% CI 1.7–7.7, $P = 0.023$) were associated with increases in tobacco consumption. **Conclusion:** A mixed picture was evident in terms of changes in consumption among current smokers and drinkers. Increased consumption was more commonly reported than reductions. Increased consumption was associated with psychological distress and socio-economic factors. Policies and services should consider a response to widening inequalities in harmful consumption.

Introduction

On 29 February 2020, the first case of SARS-CoV-2 was reported in Ireland. By 12 March, 1 day after the WHO declared the virus as a global pandemic, a range of public health social measures (PHSM) were introduced to limit viral transmission and protect vulnerable citizens (Supplementary figure s1). From 27 March to 5 May, everyone in Ireland was instructed to 'Stay at Home' and the strictest phase of restrictions or 'full lockdown' was implemented.[1]

Both national and international research became focussed on the analysis of viral transmission and COVID-19 disease outcomes and health service response. Roll-out of periodic annual surveys of health behaviours was delayed, and other surveys were rapidly configured and deployed to capture the social impact of the pandemic.[2–6] National UK indicators sets have subsequently been created to monitor the broader effects on social determinants and health behaviours.[7] In the early stages of lockdown some predicted increases in behaviours such as alcohol and smoking due to their use as coping mechanisms in times of psychological distress, while others hypothesised decreases due to tighter household budgets.[8]

The responses of different subgroups of smokers to both the threat of the virus and the PHSM introduced to disrupt transmission are beginning to emerge. While evidence on the role of smoking and second-hand smoke in facilitating transmission remains unclear, there is convincing evidence of an increased risk of severe disease for smokers including intensive care admission and ventilation.[9,10] While some studies note an increase in quit attempts and success, few have studied those smokers reporting increased use over the time period.[11]

Similarly, a complex picture is emerging in terms of drinking patterns in this time period. Alcohol availability and retail underwent radical change with the temporary closure of pubs and restaurants. This change occurred on the backdrop of a longer-term shift from on-licence to off-licence sales, with reports that take-home alcohol sales increased by up to 40% during lockdown compared to the same period in the previous year.[12]

Despite this, the potential role of alcohol in facilitating viral transmission through social, behavioural and biological mechanisms remains poorly understood and the subject of political debate.[13] Alcohol intoxication, social norms and physical environments associated with drinking occasions may diminish compliance with physical distancing, hand and respiratory hygiene.[14] Heavy alcohol use damages liver, brain, cardiovascular and immune function and is associated with an increased risk of acquiring respiratory infections and acute respiratory distress syndrome (ARDS).[15–17]

A recent UK summary of evidence on alcohol consumption during lockdown concluded that more research is needed to understand changes in alcohol consumption and how COVID-19-related impacts, such as unemployment, are associated with changes in alcohol consumption.[18] This study aims to identify factors associated with changes in both alcohol and tobacco consumption amongst drinkers and smokers during the COVID-19 lockdown in Ireland.

Methods

Study type

This observational study is a secondary analysis of data collected from the Social Impact Survey by the Central Statistics Office (CSO) Ireland. A full report of findings is available.[2] The CSO is Ireland's national statistical office that informs decision making across a range of areas including health, welfare, construction, the environment and the economy. At European level, the CSO provides an accurate picture of Ireland's economic and social performance and enable comparisons between Ireland and other countries.[19]

Data collection

The survey was conducted between 23 April and 1 May 2020, inclusive of full lockdown, to measure the impact that COVID-19, and its related Public Health and Social Measures (PHSM), had on society (Supplementary figure S1). The PHSM have been categorized as personal measures including hand washing and respiratory etiquette, physical and social distancing measures including the reduction or cancelling of large gatherings, movement measures which include the limiting of movement locally or nationally and special protection measures that include extra protection measures for those vulnerable to more serious illness from the disease.[20]

Population and sampling

Timeliness was a key priority in this survey and therefore the sample and subsequent weighting process are one of convenience to some extent. The sample for the Social Impact of COVID-19 survey was generated from respondents of a previous survey conducted by the Central Statistics Office, the Labour Force Survey (LFS), that agreed to be contacted for further research and provided an email address and phone number. The survey was limited to those over 18 years, one point of contact per household and included only private households. The Labour Force Survey had a two-stage sample design stratified by county and deprivation. Further information on the sampling methodology is available.[21] A total of 4033 people were selected from the previous survey participants and were issued the questionnaire via email ($n = 3033$), or received letters ($n = 500$) requesting their participation in the online survey. A further 500 were contacted through Computer Assisted Telephone Interviewing. A total of 1362 (33.8%) individuals responded to the survey. All those that responded were included in the analysis.

Study instruments

The survey included questions related to personal well-being, personal concerns related to COVID-19, changes in consumption behaviour such as tobacco and alcohol, and working life since the onset of COVID-19.[22] A copy of the survey has been provided (Supplementary file). The variables of interest in this study were tobacco and alcohol. In relation to tobacco, participants were asked 'Has your consumption of tobacco products changed?' in which they could respond with 'I don't consume tobacco', 'Increased', 'Decreased' or 'No change'. Similarly, in relation to alcohol, the participants were asked 'Has your consumption of alcohol changed?' with response fields 'I don't consume alcohol', 'Increased', 'Decreased' or 'No change' available.

Data weighting

Data underwent a weighting process to counteract some of the potential bias within the sample including non-response and selection bias, and to increase the representative nature of the data to that of the national population. The full weighting process is described elsewhere[21] but in short, each individual in the sample was given a weight of 1, a non-response adjustment process was then employed which included a stepwise logistic regression model that was based on census household-level data. This model was used to generate response propensities based upon a number of factors including both personal and household characteristics. The sample was then grouped into strata based on propensity score, for which non-response adjustments were calculated and applied to each respondent. Following this, the Labour Force Survey population estimates were used to benchmark the dataset across key characteristics for calibration using the SAS software programme CALMAR.

Statistical analysis

Data were analysed using SAS software. Data presented in table 1 shows both the unweighted and weighted sample results. Table 1 used weighted sample results only. Tables 2–4 used unweighted samples due to the statistical tests used. Characteristic data were analysed using descriptive statistics and presented as percentages. Binary logistic (table 2) and multinomial logistic regression models (tables 3 and 4) were used to analyse the associations with changes in tobacco and alcohol consumption respectively due to the numbers of categories in these dependant variables. There were not enough cases in the 'decreased' tobacco consumption category for inclusion in this analysis. Results of the logistic regression analysis were reported as adjusted odds ratios, 95% confidence intervals and P values. Due to sample size constraints, the models were adjusted for a small number of confounding variables that are known to be associated with tobacco and alcohol consumption, particularly during COVID-19 lockdown, and were found to be significant on univariate analysis.[6,23,24] The confounding factors adjusted for in analysis are reported in the footnotes of tables 2–4.

Results

Table 1 presents the unweighted and weighted characteristics of the study population ($n = 1362$). Using the weighted sample results, 51.3% of the sample were female and the majority were Irish (85.2%), married (52.7%) and living in urban settings (66.3%). The majority of the samples were working for payment or profit and 4.0% were unemployed.

Over four in five (80.6%) reported that they drink alcohol (Supplementary figure S2). Of these, 17.2% reported a decrease, 22.2% reported an increase and 60.2% reported no change in their alcohol consumption since the PHSM were put in place. Similar proportions of males and females reported an increase in alcohol consumption (20.9% vs. 23.4%). Increased consumption was more common among younger groups. A total of 30.4% of 18- to 34-year-olds and 30.7% of 35- to 44-year-olds who drank alcohol reported increases in alcohol consumption.

Twenty-six per cent of survey respondents stated that they consume tobacco, of whom, 8.6% reported their consumption had decreased, 30.5% said it had increased and 60.9% said that their tobacco consumption had not changed (Supplementary figure S3). More females than males reported increases in tobacco use (34.7% vs. 26.2%). Tobacco increases were spread more evenly across all age categories with the highest increases in the 45–54 age bracket at 37.4%.

There were also some similarities in the patterns of alcohol and tobacco use. Those in the age bracket '70 and over' had the lowest rate of both alcohol and tobacco increases. Single (never married) individuals had a higher rate of increase in both alcohol (29.8%) and tobacco (37.5%) consumption than those who were married, separated, widowed or divorced.

A binary logistic regression analysis revealed that after adjusting for gender and marital status the factors associated with increasing tobacco use during lockdown included feeling very nervous all/most/some of the time [adjusted odds ratio (aOR) 2.2, 95% confidence interval (CI) 1.2–4.0, $P = 0.009$], feeling downhearted/depressed all/most/some of the time (aOR 2.4, 95% CI 1.3–4.4, $P = 0.004$), being very or extremely concerned about someone else's

Table 1. Characteristics of the study population, unweighted and weighted distributions ($n = 1362$)

	Unweighted (%)	Weighted (%)
Gender		
Male	40.2	48.8
Female	59.8	51.3
Age		
18–34	7.7	27.4
35–44	26.2	20.9
45–54	24.5	18.0
55–69	32.2	20.6
70+	9.4	13.1
Marital status		
Single/never married	23.2	36.9
Married	65.1	52.7
Separated or divorced	4.0	3.2
Widowed	7.8	7.3
Principal economic status		
Working for payment or profit	63.2	59.3
Unemployed	3.0	4.0
Student or pupil	1.9	6.7
Retired from employment	21.3	15.9
Unable to work due to permanent sickness or disability	2.6	4.1
Engaged on home duties	7.4	8.9
Other	0.6	1.1
Nationality		
Irish	93.0	85.2
Non-Irish	7.0	14.8
Highest educational level		
Higher secondary education or lower	22.0	47.9
Post-secondary or Short cycle tertiary	23.4	18.4
Third level bachelor or higher	54.6	33.7
Household composition		
1 adult, no children	15.3	13.2
2+ adults, no children	44.3	48.3
Households with children	40.5	38.5
Urban/rural		
Urban	68.4	66.3
Rural	31.6	33.7
Deprivation status		
Very disadvantaged	10.1	19.3
Disadvantaged	16.5	18.9
Average	20.6	19.6
Affluent	23.6	21.3
Very affluent	29.2	21.0

health (aOR 2.0, 95% CI 1.1–3.9, $P = 0.031$), working from home during COVID-19 (aOR 2.3, 95% CI 1.0–5.3, $P = 0.046$) and an increase in alcohol consumption (aOR 3.6, 95% CI 1.7–7.7, $P = 0.023$).

On multinomial logistic regression analysis, the factors found to be associated with increased alcohol use during lockdown included being concerned about household stress from confinement (aOR 1.9, 95% CI 1.3–2.9, $P = 0.002$), currently working from home (aOR 2.1, 95 CI 1.4–3.3, $P < 0.001$) and living in an urban setting (aOR 2.0, 95 CI 1.5–2.9, $P < 0.001$) after adjusting for age, gender and marital status. Those who were labour inactive (not seeking employment) before COVID-19 and remained so during COVID-19 were less likely to increase their alcohol use compared to those who were unemployed (but actively seeking employment) before and/or during COVID-19 (aOR 0.6, 95% CI 0.3–0.9, $P = 0.016$). Individuals living in an adult-only household were more likely to decrease their alcohol use (aOR 1.6, 95% CI 1.0–2.6, $P = 0.039$) whereas those feeling very nervous were less likely to decrease alcohol use (aOR 0.6, 95% CI 0.4–1.0, $P = 0.031$).

Discussion

This study found a mixed picture regarding changes in consumption among current drinkers and smokers in Ireland. Most did not

Table 2. Binary regression analyses for factors associated with an increase in smoking during COVID-19

Factors	Adjusted odds ratios (aOR)	95% confidence intervals (95% CI)
Feeling very nervous		
A little/none of the time[a]	1.0	
All/most/some of the time	2.2	1.2–4.0
Feeling downhearted or depressed		
A little/none of the time[a]	1.0	
All/most/some of the time	2.4	1.3–4.4
Feeling lonely		
A little/none of the time[a]	1.0	
All/most/some of the time	1.8	0.9–3.3
Concerned about own health		
Somewhat/not at all[a]	1.0	
Very/extremely	1.3	0.7–2.4
Concerned about somebody else's health		
Somewhat/not at all[a]	1.0	
Very/extremely	2.0	1.1–3.9
Labour market activity		
Unemployed[a]	1.0	
Employed	1.2	0.6–2.4
Inactive	0.8	0.3–2.1
Currently working from home		
No[a]	1.0	
Yes	2.3	1.0–5.3
Alcohol consumption during COVID-19		
No change[a]	1.0	
Increased	3.6	1.7–7.7
Decreased	2.0	0.7–5.6

All factors were adjusted for gender and marital status.
[a] Indicates the reference group.

Table 3. Multinomial regression analyses for factors associated with an increase in alcohol consumption during COVID-19

Factors	Adjusted odds ratios (aOR)	95% confidence intervals (95% CI)
Feeling very nervous		
A little/none of the time[a]	1.0	
All/most/some of the time	1.1	0.8–1.5
Feeling downhearted or depressed		
A little/none of the time[a]	1.0	
All/most/some of the time	1.2	0.9–1.7
Feeling lonely		
A little/none of the time[a]	1.0	
All/most/some of the time	1.2	0.9–1.7
Concerned about own health		
Somewhat/not at all[a]	1.0	
Very/extremely	0.9	0.6–1.3
Concerned about somebody else's health		
Somewhat/not at all[a]	1.0	
Very/extremely	1.0	0.8–1.4
Concerned about household stress from confinement		
Somewhat/not at all[a]	1.0	
Very/extremely	1.9	1.3–2.9
Household composition		
Households with children[a]	1.0	
Adults only	1.0	0.7–1.4
Labour market activity		
Unemployed[a]	1.0	
Employed	1.0	0.7–1.4
Inactive	0.6	0.3–0.9
Currently working from home		
No[a]	1.0	
Yes	2.1	1.4–3.3
Urban/rural households		
Rural[a]	1.0	
Urban	2.0	1.5–2.9

All factors were adjusted for age, gender and marital status.
[a] Indicates the reference group.

Table 4. Multinomial regression analyses for factors associated with a decrease in alcohol consumption during COVID-19

Factors	Adjusted odds ratios (aOR)	95% confidence intervals (95% CI)
Feeling very nervous		
A little/none of the time[a]	1.0	
All/most/some of the time	0.6	0.4–1.0
Feeling downhearted or depressed		
A little/none of the time[a]	1.0	
All/most/some of the time	0.8	0.5–1.2
Feeling lonely		
A little/none of the time[a]	1.0	
All/most/some of the time	0.8	0.5–1.3
Concerned about own health		
Somewhat/not at all[a]	1.0	
Very/extremely	0.9	0.6–1.4
Concerned about somebody else's health		
Somewhat/not at all[a]	1.0	
Very/extremely	0.9	0.6–1.3
Concerned about household stress from confinement		
Somewhat/not at all[a]	1.0	
Very/extremely	0.8	0.4–1.6
Household composition		
Households with children[a]	1.0	
Adults only	1.6	1.0–2.6
Labour market activity		
Unemployed[a]	1.0	
Employed	1.0	0.6–1.8
Inactive	0.9	0.5–1.7
Currently working from home		
No[a]	1.0	
Yes	1.1	0.6–1.8
Urban/rural households		
Rural[a]	1.0	
Urban	1.5	1.0–2.2

All factors were adjusted for age, gender and marital status.
[a] Indicates the reference group.

change their consumption but among those that did, an increase was more likely than a decrease. Factors associated with increases in alcohol and tobacco use differed. Psychological factors like worry, anxiety and sadness were significantly associated with increases in tobacco use, with women potentially more vulnerable than men. Among drinkers, increased consumption was more directly related to socio-demographic and environmental factors like unemployment, urban living and stress from confinement. Younger people were more vulnerable than older age groups. This study provides useful insights into smokers and drinkers vulnerable to increased tobacco and alcohol consumption during periods of lockdown.

A French study of 11 391 participants conducted using an online survey during a similar phase of COVID-19 lockdown restrictions found similar patterns of tobacco and alcohol consumption changes.[23] It reported that 35.6% of individuals increased their tobacco use and 24.8% increased alcohol consumption. The results of multivariable analysis found that female gender, having no partner, working outside the home and having intermediate or low educational attainment were associated with increases in tobacco use whereas being 30–49 years, obtaining a high level of education and undergoing current psychiatric treatment was associated with increases in alcohol. Reduced mental well-being and greater overall stress were shared risk factors for an increase in both behaviours.

A range of studies report positive trends of increased smoking cessation attempts and increases in the success rate of quit attempts and most report either positive trends or no significant overall change in smoking prevalence.[24,25] However, fewer studies capture changes in cigarette consumption among smokers, and consider which smokers are at greatest risk of amplified consumption and tobacco-related

harms as a result of behavioural adaptations to lockdown. A Dutch study found that more smokers had increased their smoking than reduced (18.9% vs. 14.1%) and determined a dose–response relationship between stress and smoking.[26] For example, smokers who were severely stressed were even more likely to have either increased or reduced their smoking than those who were somewhat stressed.

A UK study of 20 558 adults aged 16 years and older found that the prevalence of high-risk drinking increased from 25.1% before lockdown to 38.3% during lockdown.[24] There was also a reduction in attempts by high-risk drinkers to reduce alcohol intakes from 28.5% to 15.3%. Another UK study that used repeated cross-sectional and longitudinal analysis of the UK Household Longitudinal Study found that while cigarette use decreased (RR = 0.9, 95% CI = 0.8, 1.0) during lockdown, binge drinking and the proportion of people drinking four or more times per week increased (RR = 1.5, 95% CI 1.3–1.7 and RR = 1.4, 95% CI 1.3–1.5 respectively).[6] Binge drinking and frequent drinking were most pronounced in women, white ethnic groups and those with degree-level education. The study also reported that the cigarette reduction was likely due to cessation in lighter smokers (<10 cigarettes per day) and was most apparent in younger age groups and men. Despite reporting significant increases in psychological stress during lockdown the study did not investigate its impact on alcohol or cigarette use.

Ireland is a high alcohol consumption country with the highest prevalence of heavy episodic drinking in Europe.[24] There are over 1.3 million people drinking at harmful levels and more than 150 000 alcohol-dependent people.[27] The Global Drugs Survey, based on un-weighted data, published a special edition on COVID-19 based on data collected from over 40 000 individuals including 2,200 participants from Ireland.[28] This concluded that drinkers in Ireland were the most likely to report that their alcohol intake 'increased a lot' compared to 11 other countries. Ireland also had the greatest increase in heavy episodic drinking. This survey also reported that 36.7% of the sample from Ireland reported they started drinking earlier in the day. Globally, alcohol contributes to 20% of injury and 11.5% of non-injury emergency room presentations, thus, increases in alcohol consumption during COVID-19 could lead to additional pressure on healthcare systems responding to COVID-19.[29]

A limitation of this analysis is that the impact of the pandemic will have substantially changed the nature of people's drinking—severely restricting where and with whom they can drink. These changes may have made it harder for individual survey respondents to assess whether their alcohol consumption had genuinely fallen or increased during the pandemic, although it is not clear what direction of impact this might have on our analysis. It is possible that the increased stress associated with COVID-19 may have heightened either people's awareness of their drinking, or their desire to drink, even if it did not change their actual alcohol consumption level, although there is little existing evidence to support such an effect.

Although our data do not have details on the type of drinkers that changed their alcohol consumption over lockdown, a UK study found that high-risk drinkers had over twice the odds of making a serious attempt to reduce alcohol consumption after lockdown compared to before lockdown after adjusting for covariates.[24]

While smoking has declined considerably in Ireland, the current prevalence rates suggest that the 5% target set in the Tobacco Free Ireland strategy will not be met.[30] In the Republic of Ireland, quit rates are monitored annually by the Department of Health's 'Healthy Ireland Survey' but there has been no comprehensive monitoring of smoking prevalence and quit attempts during the lockdown to date and fieldwork on the 2020 wave of the Healthy Ireland survey was suspended due to the Covid-19 situation.[31]

Our study shows that just over 3 in 10 smokers and 2 in 10 drinkers increased their consumption during the lockdown period. Our exploration of factors related to increased consumption found different vulnerabilities for escalations in tobacco and alcohol use. We also observed an association between increases in both alcohol

and tobacco use suggesting that some subgroups of the population may be vulnerable to poly-substance misuse at this time.

Self-reported nervousness, worry, sadness or depression were associated with increases in tobacco consumption. This is a concerning finding suggesting that the pandemic may further compound the vulnerability of smokers with pre-existing mental ill-health to an excess burden of tobacco-related harms.[32] Working from home in lockdown was also associated with increased consumption. The loss of the moderating effect of the workplace smoking ban may be at play with the potential for increases in the frequency or duration of 'smoke breaks'.

Unlike previous studies, the association between psychological distress factors and alcohol consumption was not retained after multivariate analysis. Associations were observed with socio-economic and environmental factors such as unemployment, working from home, living in an urban area and being concerned about stress from household confinement.[23,33] This finding suggests that behavioural change may be driven by both external influences such as alcohol affordability and availability and social norms/industry marketing strategies for home drinking as well as internal psychological drivers. Some drinkers may have experienced stress from household confinement in the context of the closure of licensed premises and the absence of non-domestic drinking occasions.

People who reported increases in tobacco and alcohol consumption during lockdown were vulnerable across psychological and socio-economic domains. The increases in smoking and alcohol during COVID-19 could therefore widen previously existing health inequalities. The widening of inequalities in tobacco and alcohol-related harms could be seeded during the lockdown and compounded by economic recession in the COVID-19 recovery period.

Other research suggests that older adults may be particularly vulnerable to an increase in substance use as they are disproportionately affected by PHSM.[34] However, the pattern of increased consumption was evident mainly among younger populations in this analysis.

This study has the strength of a relatively large sample size, particularly in relation to the national population, which allowed for confounder adjusting. The study also presents both weighted and unweighted data to improve national representation. Furthermore, the analysis is unique in that they investigate the potentially modifiable risk factors associated with increased alcohol and tobacco use whilst adjusting for characteristic variables that are now known to be associated with these patterns.

The study has limitations in terms of the survey sampling and in terms of the health behaviour variables collected. The sampling frame excludes people who do not live in private households, had an email address and include those who responded to a previous 5 wave longitudinal survey, so it may not represent those who are most likely to be negatively affected by COVID-19. The sample size of our data was too small to model for gender and age differences. Future research with larger samples should investigate if any potential interactions exist between these two factors.

This study, like others carried out during COVID-19 lockdown, may be impacted by non-response bias and is reliant on self-report. However, during this time many methodologically robust national and international surveys were halted and data were urgently needed to attempt to mitigate the clinical and social impacts of COVID-19.[35]

With regard to the variables collected, it has been reported that greater perceived risk of smoking during COVID-19 is a motivating factor for some to reduce or quit cigarette and e-cigarette use, however, our study only reports the changes in tobacco consumption of current smokers and does not represent those who may have quit during this period or switched from tobacco to e-cigarette use.[25] The survey did not assess the nature of the change in consumption so the numbers of additional cigarettes smoked or additional drinks consumed were not quantified.

Our study found that a subgroup of smokers and alcohol drinkers increased their consumption during lockdown. The factors associated with increases in alcohol and tobacco use differed. These findings will have implications for targeting messages and interventions to help reduce tobacco and alcohol-related harms and reduce the burden on health services as the pandemic progresses.

Acknowledgements

Key points

- This study found a mixed picture regarding changes in alcohol consumption with similar numbers reporting increased and decreased consumption during COVID-19 lockdown.
- Although the majority of tobacco users did not change their consumption during lockdown, 3 in 10 individuals reported increased tobacco consumption.
- The factors associated with increases in alcohol and tobacco use differed.
- Psychological factors like worry, anxiety and sadness were significantly associated with increases in tobacco use.
- Among drinkers, increased consumption was more directly related to socio-demographic and environmental factors like unemployment, urban living and stress from confinement.

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