When Dads Can't Get on the Beers: The Positive Impact of COVID-19 on Parental Drinking Behaviour

August 24, 2026

Abstract

We estimate the effect of COVID-19 restrictions on alcohol consumption among parents living in Victoria. We combine detailed drinking information from the Victorian Adolescent Health Cohort Study, quasi-random variation in survey timing around Victoria's first lockdown in March 2020, and a difference-in-differences design. We find that heavy drinking among fathers falls substantially: high-risk drinking declines by 26%, binge drinking drops by 28%, and peak single-occasion consumption decreases by approximately four standard drinks. Effects are entirely absent among mothers, concentrated among fathers of younger children, and grow larger under the second, longer lockdown. Descriptive evidence points to weekend drinking as the primary margin of adjustment, consistent with the removal of social occasions rather than financial hardship as the operative mechanism. These findings suggest that the structure of social opportunities shapes household drinking behaviour, and that policies intended to reshape daily routines can generate substantial reductions in alcohol consumption even when not explicitly designed for this target.

JEL Classification: I12; I18; J13; D10

Keywords: alcohol consumption; COVID-19; lockdown; fathers; preventive health; Australia

1 Introduction

Alcohol consumption is shaped by individual preferences, social norms, and economic conditions (Francesconi and James, 2019; Johansson et al., 2014; Matthews et al., 2024). Social opportunities to drink play a particularly important role as people tend to drink more at weekends, more in the company of others than alone, and more when routines, such as after-work events, create space for it. Understanding how exogenous changes in the opportunity to drink affect alcohol consumption is difficult because variation in opportunities to drink is rarely independent of individual preferences and behaviours. Yet, filling this knowledge gap remains important as policies can be leveraged to modify access to drinking opportunities.

This paper examines whether COVID-19 restrictions changed how parents drink, and whether this differs for mothers and fathers. Beyond the direct association of alcohol consumption and one's own health harms (Australian Institute of Health and Welfare, 2026), alcohol consumption among parents can have detrimental impacts on their dependent children, as well as on the quality of the relationship with their partner (Hopkins et al., 2024; Keller et al., 2008), making parental drinking an important concern.

A priori, it is unclear in which direction parental drinking behaviour would change during the pandemic. Lockdown restrictions included school and childcare closures, which forced simultaneous management of employment, teaching, and caregiving, placing parents under acute and sustained stress (Broadway et al., 2020; Cheng et al., 2021; Zamarro and Prados, 2021). At the same time, restrictions on movement and social gatherings also removed many occasions most strongly associated with heavy drinking. We therefore remain agnostic about the direction of any change and treat it as an empirical question, one that may also help reconcile the mixed aggregate findings in the literature (Roberts et al., 2021; Rehm et al., 2020; Pollard et al., 2020; Celidoni et al., 2023; Schurer et al., 2023).

We use data from the Victorian Adolescent Health Cohort Study (VAHCS), a longitudinal study of over 2,000 Victorians spanning over 30 years, with data collected across multiple waves at irregular intervals. The study investigates mental and physical health problems and risk behaviours, and includes detailed information on alcohol consumption.

The central data for this study was collected in wave 11, beginning in late 2019 and continuing through 2020, with Victoria's first lockdown commencing on 29 March 2020.

Melbourne, the capital of Victoria and Australia's second-largest city, experienced multiple lockdown periods over the following months and had more cumulative time under stay-at-home orders than any other city in the world (Boaz, 2021). Because wave 11 surveys continued throughout this period, some respondents completed their surveys under normal conditions while others did so under active restrictions, generating substantial within-wave variation in restriction exposure. We argue that whether a respondent was surveyed before or after restrictions began is unrelated to other factors affecting their drinking patterns. We exploit this quasi-experimental variation in a difference-in-differences (DiD) design to identify the causal effect of lockdown exposure on parental drinking patterns.

Our identification strategy relies on the assumption that if the decision to respond during lockdown is correlated with unobserved characteristics that also affect drinking, estimates would be biased. For example, if people experiencing negative health or employment shocks were more likely to start drinking heavily and respond to the survey later, our estimates would pick up the effect of the health or employment shock rather than the effect of lockdowns. We address this concern in three ways. First, a balance check on predetermined individual characteristics confirms that pre-lockdown respondents and lockdown respondents are observationally very similar. Second, we show that late respondents in wave 11 were systematically late respondents in earlier waves as well, suggesting that response timing reflects administrative and time-invariant factors rather than unobserved shocks affecting responding and drinking behaviours. Third, we show that baseline drinking behaviour does not predict the timing of response, reducing concern that the timing is directly associated with drinking.

Our main finding is a substantial reduction in alcohol consumption among fathers. We show a decrease of 16.5 percentage points in the likelihood of binge drinking, which, relative to the pre-lockdown average binge drinking rate of 59%, is a reduction of about 28%. The probability of high-risk drinking falls by 15.4 percentage points (26%), and the maximum number of drinks per occasion declines by around four standard drinks (36%). Effects grow larger with longer exposure to lockdowns. Among fathers, reductions are concentrated in households with children aged under 12; fathers of older children show no significant change, and if anything display marginally elevated binge drinking, consistent with evidence from the Household, Income and Labour Dynamics in Australia (HILDA)

Survey (Schurer et al., 2023).

We explore potential mechanisms, noting that this evidence is suggestive rather than causal. COVID-19 restrictions reduced the probability of drinking at weekends, when social occasions are most frequent, while leaving weekday consumption unchanged, consistent with the restriction of social drinking opportunities as a primary driver. Using supplementary COVID-19-specific survey questions administered to lockdown-affected respondents only, we document that reductions in drinking are substantially larger for parents whose finances were affected by COVID-19. When excluding this group (around 30% of the sample) the estimated effect reduces in magnitude, though the residual effect among financially unaffected parents remains negative. Lastly, we document descriptive evidence of reductions in drinking being associated with increased family engagement at home, improvement in fathers mental health and a reduction in their cigarette consumption. Mothers also report improved satisfaction in their relationship with their partner.

This paper makes three contributions. First, it adds to the literature on how the COVID-19 pandemic affected alcohol consumption (Roberts et al., 2021; Rehm et al., 2020; Pollard et al., 2020; Celidoni et al., 2023; Schurer et al., 2023), providing causal evidence consistent with the "dry pandemic" hypothesis (Celidoni et al., 2023) and identifying fathers of young children as the group driving this reduction. Second, it contributes to the literature on gendered behavioural responses to large aggregate shocks (Cheng et al., 2021; Arulsamy et al., 2025; Etheridge and Spantig, 2022). Despite facing identical restrictions, mothers and fathers exhibit entirely divergent drinking responses, suggesting that the effects of pandemic-related policies on health behaviours are mediated by pre-existing differences in gender roles and time allocation within families. Third, the paper contributes to the literature on the social determinants of risky health behaviours (MacLean et al., 2016; Fletcher and Ross, 2018; Jones et al., 2015). A recurring finding is that alcohol consumption responds to prices, taxes, and availability restrictions, but less is known about how changes in the structure of social occasions, the settings in which heavy drinking occurs, affect consumption independently of price or access. Our setting provides direct evidence on this channel because a large decline in weekend drinking among fathers, with no corresponding change on weekdays or among mothers facing identical formal restrictions, points to occasion structure rather than stress or income loss as the operative mechanism.

The rest of the paper proceeds as follows. Section 2 provides institutional background on the Victorian lockdowns. Section 3 describes the data and sample. Section 4 sets out the empirical strategy and identification checks. Section 5 presents the main results, heterogeneity analysis, suggestive evidence on mechanisms, and secondary outcomes. Section 6 reports robustness checks. Section 7 discusses the findings and concludes.

2 Institutional Background

COVID-19 in Australia

After detecting the first COVID-19 case at the end of February 2020, Australia adopted an aggressive suppression strategy based on stay-at-home orders, testing, contact tracing, isolation, and strict border controls. International borders were largely closed for almost two years from March 2020, with mandatory hotel quarantine for returning residents, while internal state borders were intermittently restricted. The first nationwide lockdown in March 2020 succeeded in rapidly reducing case numbers. By early May 2020, daily infections had fallen to almost zero, allowing restrictions to ease unevenly across states (Stobart and Duckett, 2022).

Victoria, the second most populous state, however, experienced repeated outbreaks that led to one of the longest and strictest cumulative lockdowns globally. Beginning with a major outbreak in Melbourne in Winter (mid-2020), the Victorian Government imposed extended lockdowns involving legally enforceable stay-at-home orders, business and school closures, curfews, mandatory mask-wearing, and restrictions on movement and social interaction. These measures were reintroduced multiple times through 2020 and 2021, including several "snap" lockdowns, with Melbourne spending a total of 262 days under stay-at-home orders in these two years. While other states experienced only brief or localised restrictions, Melbourne residents spent more days under lockdown than any other major city globally. Section 7.3 in the Appendix shows a detailed record of the lockdown dates in Victoria.

Alongside public health measures, large-scale federal income support programs, most notably JobKeeper, helped cushion income losses and maintain employment links (Borland and Hunt, 2023; Breunig and Sainsbury, 2023).

Schooling and childcare were also heavily disrupted. Child care services were kept open

where possible, supported by federal subsidies that temporarily replaced the existing fee system, though usage declined sharply during lockdowns. Schools moved rapidly to online learning, with in-person teaching largely limited to children of essential workers and senior secondary students (Mooi-Reci et al., 2025).

Alcohol Consumption in Australia

Alcohol consumption is widespread in Australia and represents an important public health concern. In 2022, 26.8% of Australian adults exceeded the national alcohol consumption guidelines (Australian Bureau of Statistics, 2023). Men tend to exceed the recommended quantity more than women (35.8% compared with 18.1%). Among adults who exceeded the guidelines in 2022, 70.6% consumed more than 14 standard drinks in the previous week.

The consequences of harmful alcohol consumption extend beyond individual health. Alcohol is estimated to be involved in 10–15% of emergency department presentations, around one quarter of road fatalities, and 34% of intimate partner violence incidents. It is also a leading cause of drug-related deaths and was the most common principal drug of concern among people accessing alcohol and other drug treatment services in 2017–2018 (Australian Government Department of Health, 2019). These numbers highlight the broader health and social costs associated with risky alcohol consumption in Australia.

3 Data

We use data from the Victorian Adolescent Health Cohort Study (VAHCS), a longitudinal study initiated in 1992 that recruited a representative sample of Victorian adolescents aged 14–15 years and has followed them across eleven waves of data collection spanning over 30 years. The study provides rich panel data on health behaviours, mental health, family circumstances, and socioeconomic characteristics, making it well-suited for tracking how shocks affect individual outcomes over time. Importantly, the VAHCS study provides rich history on drinking behaviours that start to emerge during adolescence and can be persistent (Kerr et al., 2025).

The critical feature for our identification strategy is the timing of wave 11 data col-

lection. Surveys began in late 2019 and continued throughout 2020, with Victoria's first lockdown commencing on 29 March 2020 midway through the collection period. Respondents whose survey was scheduled before this date were surveyed under normal conditions; those surveyed only a few months after were surveyed under active restrictions. This division is determined by administrative scheduling across respondents rather than by respondents' behaviour or characteristics. More details are provided in Section 4.

Data collection methods evolved across waves. Earlier waves used school-based computer surveys; waves 7–9 primarily used Computer-Assisted Telephone surveys (CATI); and wave 10 introduced an online option (used by 6.6% of respondents). In wave 11, both CATI and online formats were used, with the distribution remaining stable across the lockdown threshold: 59% CATI and 41% online before March, and 48% CATI, 43% online, and 9% short-form after. The continuity in survey mode supports the comparability of pre- and post-lockdown observations.

Since identification relies on within-wave 11 variation, the relevant question is whether respondents surveyed before and after the lockdown cutoff are comparable rather than whether attrition is selective across the full panel. Panel attrition in later waves is modest, averaging approximately 5–6 % per wave relative to the preceding wave across recent years in the study. In addition, the balance checks in Section 5 confirm no systematic differences between these two groups on either pre-lockdown drinking outcomes or personal characteristics.

The second important data source used in this study is detailed information on the timing and exact areas affected by lockdowns. This is compiled from different sources, including the Australian Institute of Health and Welfare (AIHW) and social media announcements (Twitter) from the Premier of Victoria during 2020–21 (see Appendix A). Lockdown timing and postcode locations are linked to the date of survey and the postcode of the respondent to define the treatment group as parents whose wave 11 survey took place under active restrictions, and the control group as parents who were surveyed before 29 March 2020.

Our primary outcomes capture alcohol consumption. A feature of the data is that it allows us to go beyond the extensive margin (i.e whether there is any alcohol consumption), and we can examine intensive margins (how much alcohol is consumed and when). Following the AIHW guidelines, we construct three binary indicators: *binge drinking* is

equal to one if the respondent consumed more than 4 standard drinks[1] on any single day in the previous week; *intense drinking* is equal to one if they consumed more than 10 standard drinks in total over the previous week; and *high-risk drinking* is equal to one if either threshold was exceeded. We also examine the maximum number of standard drinks consumed in a single day, total weekly drinks, and the number of days on which alcohol was consumed.

To explore the use of other substances, we also consider the number of days smoked in the previous week and the number of cigarettes consumed per day, both in the full sample and among current and former smokers. This distinction is particularly relevant given the relatively low prevalence of daily smoking in Australia (8.5% in 2020), compared with the OECD average (14.8% in 2023) (OECD, 2025).

Finally, the literature has established a link between poor mental health and alcohol consumption. While previous studies using survey data relied on measures of wellbeing or mild health conditions not necessarily diagnosed, VAHCS provides detailed clinical measures used to diagnosed mental health conditions. We explore this relationship using variables derived from the Composite International Diagnostic survey (CIDI), a standardised diagnostic survey aligned with ICD-10 and DSM-III-R criteria (Wittchen, 1994), consistently available in waves 9, 10, and 11 only. It includes 276 symptom questions to evaluate symptom severity, as well as questions to assess help-seeking behaviour, psychosocial impairments, and other episode-related aspects. Summary indices derived from the CIDI are constructed by the Melbourne Children's Hospital and used in the analysis. We also include a measure of relationship satisfaction, harmonised across waves and classified into three categories: satisfied, neutral, and dissatisfied.[2]

[1] A standard drink in Australia is defined as containing 10 grams (12.5 ml) of pure alcohol. To put in into context, a pot (285ml) of full-strength beer (4.9%) or a glass (100ml) of wine (13%) are approximately equivalent to one standard drink.

[2] Relationship satisfaction was measured using different response scales across waves. Waves 8 and 9 used four categories: Satisfied, Slightly dissatisfied, Markedly dissatisfied, and Severely dissatisfied; Wave 10 used the three-category classification included in the analysis; and Wave 11 used five categories: Very satisfied, Slightly satisfied, Neither satisfied nor dissatisfied, Slightly dissatisfied, and Very dissatisfied. To harmonise the measure across waves, in Waves 8 and 9 we classify "Satisfied" as satisfied, "Slightly dissatisfied" as neutral, and combine "Markedly dissatisfied" and "Severely dissatisfied" as dissatisfied. In Wave 11, we combine "Very satisfied" and "Slightly satisfied" as satisfied, retain "Neither satisfied nor dissatisfied" as neutral, and combine "Slightly dissatisfied" and "Very dissatisfied" as dissatisfied.

Tables 1 and 2 report summary statistics for the full sample and for wave 11, respectively. The pooled sample is 60% female with an average age of 33 years; wave 11 respondents average 42.62 years of age and have 2.21 children. In the pooled sample, 39% of respondents binge drank in the previous week, 32% drank intensely, and 40% are classified as high-risk drinkers. Table A3 in the Appendix reports these statistics disaggregated by gender.

Table 1: Summary statistics

		(1)	
VARIABLES	count	mean	sd
Binge last week (AIHW)	3540	0.39	0.49
More than 10 SD last week (AIHW)	3540	0.32	0.47
AIHW_drinking	3540	0.40	0.49
N. of days drank	3459	1.61	1.89
Max drinks in a day	3540	6.28	11.94
Total drinks last week	3540	10.33	19.17
Depressed	2562	0.11	0.31
Dissatisfaction with your relationship	2849	1.09	0.34
N. of days smoked	3482	1.42	2.73
N. of cigarettes smoked	3482	16.12	38.47
Age	3540	33.00	7.02
Number of children	3540	1.15	1.23
Female	3540	0.60	0.49

Notes: Means and standard deviations reported. All waves are included. Binary indicators are in [0,1]. AIHW = Australian Institute of Health and Welfare definitions.

Table 2: Summary statistics wave 11

		(1)	
VARIABLES	count	mean	sd
Binge last week (AIHW)	948	0.36	0.48
More than 10 SD last week (AIHW)	948	0.32	0.47
AIHW_drinking	948	0.37	0.48
N. of days drank	905	1.94	2.23
Max drinks in a day	948	6.00	14.53
Total drinks last week	948	10.85	22.06
Depressed	881	0.13	0.34
Dissatisfaction with your relationship	779	1.13	0.45
N. of days smoked	945	0.97	2.37
N. of cigarettes smoked	945	10.87	32.67
Age	948	42.62	0.58
Number of children	948	2.21	0.92
Female	948	0.59	0.49

Notes: Means and standard deviations reported. Binary indicators are in [0,1]. AIHW = Australian Institute of Health and Welfare definitions.

4 Empirical Strategy

4.1 Difference-in-Differences Specification

Our empirical approach exploits within-cohort variation in the timing of wave 11 surveys relative to the lockdown onset of 29 March 2020. Parents surveyed before that date form the control group; those surveyed on or after form the treated group. Because all respondents belong to the same longitudinal cohort, followed since adolescence under identical study protocols and assigned to survey slots on administrative grounds, the two groups share a long pre-treatment history and differ at the time of wave 11 only in whether they had experienced a lockdown at the point of their survey.

The two-way fixed effects DiD model we estimate is defined in Equation 1. Our treatment indicator, T_i, is equal to one for parents surveyed on or after 29 March 2020

and zero otherwise. The treatment therefore captures active lockdown exposure at the time of the survey.

$$y_{it} = \alpha_i + \lambda_t + \gamma^{DD} T_i \times D_t + \beta' X_{it} + \epsilon_{it} \tag{1}$$

The outcome for individual i at time t is denoted by y_{it}. Individual fixed effects α_i absorb all time-invariant unobserved heterogeneity, including stable differences in drinking propensity across respondents. Wave fixed effects λ_t capture common time trends, such as secular changes in drinking norms, while month dummies account for within-wave seasonality. To account for changes in family composition over time, X_{it} includes a categorical measure of family size distinguishing respondents with no children, one child, two children, and three or more children. Because our study focuses on parents, the "no-children" category only exists prior to wave 11.

Parents in the treatment and control group are similar in terms of age, employment, and gross household income, although some differences emerge in educational attainment and number of children. Persistent differences associated with education are absorbed by the individual fixed effects, while differences in family size are addressed by the time-varying family-size controls included in the specification. Tables 3 and 4 compare treated and control parents on background characteristics measured across the pre-pandemic waves 2–10.

Table 3: Balance Tests: Panel A - Outcome (Wave 2-10)

	All	Control	Treated	(3)-(2)	Observations
	(1)	(2)	(3)	(4)	(5)
Panel A: Outcome					
Binge last week (AIHW)	0.29	0.30	0.28	-0.02	7,665
	[0.45]	[0.46]	[0.45]	(0.01)	
More than 10 SD last week (AIHW)	0.21	0.21	0.20	-0.01	7,665
	[0.40]	[0.41]	[0.40]	(0.01)	
High risk drinker (AIHW)	0.29	0.30	0.29	-0.02	7,665
	[0.45]	[0.46]	[0.45]	(0.01)	
N. of days drank	0.89	0.90	0.89	-0.01	7,627
	[1.37]	[1.35]	[1.37]	(0.04)	
Max drinks in a day	4.51	4.59	4.48	-0.11	7,665
	[9.18]	[8.40]	[9.42]	(0.23)	
Total drinks last week	6.75	6.82	6.73	-0.10	7,665
	[14.71]	[13.40]	[15.11]	(0.37)	
Depressed	0.10	0.09	0.10	0.01	1,681
	[0.30]	[0.28]	[0.30]	(0.02)	
Dissatisfaction with your relationship	1.07	1.07	1.07	-0.00	2,070
	[0.29]	[0.29]	[0.29]	(0.01)	
N. of days smoked	0.84	0.76	0.87	0.11*	6,892
	[2.21]	[2.11]	[2.24]	(0.06)	
N. of cigarettes smoked	6.98	6.24	7.22	0.98	6,569
	[26.52]	[25.17]	[26.94]	(0.73)	

Table 4: Balance Tests: Panel B - Predetermined Characteristics (Wave 2-10)

	All	Control	Treated	(3)-(2)	Observations
	(1)	(2)	(3)	(4)	(5)
Panel B: Predetermined characteristics					
Age	21.27	21.28	21.27	-0.02	7,665
	[6.60]	[6.58]	[6.61]	(0.18)	
Education (dummy=1 for bachelor's and above)	0.56	0.62	0.54	-0.08***	1,730
	[0.50]	[0.49]	[0.50]	(0.03)	
Num. of children (categorical)	0.25	0.22	0.27	0.05***	7,665
	[0.68]	[0.64]	[0.70]	(0.02)	
Recoded Employment	1.21	1.21	1.21	0.00	3,400
	[0.55]	[0.55]	[0.55]	(0.02)	
Gross household income (weekly)	2408.22	2379.84	2417.86	38.03	6,467
	[1522.84]	[1078.53]	[1646.62]	(35.65)	
Female	0.60	0.59	0.60	0.02	7,665
	[0.49]	[0.49]	[0.49]	(0.01)	

The coefficient of interest is γ^{DD}, which captures the interaction of the treatment group indicator with the wave 11 dummy D_t. Identification of the average treatment effect of the lockdown on alcohol consumption rests on the parallel trends assumption that absent the lockdown, treated and control respondents would have followed similar outcome trajectories. We assess its plausibility by estimating the event-study specification in equation (2), in which the treatment indicator is interacted separately with each wave dummy and wave 10 is omitted as the reference period.

$$y_{it} = \alpha_i + \lambda_t + \sum_{\substack{k \in \mathcal{W} \\ k \neq 10}} \gamma_k \left(T_i \times \mathbf{1}\{t = k\} \right) + \beta' X_{it} + \epsilon_{it} \tag{2}$$

The coefficients γ_k for $k \leq 10$ show any differential pre-wave 11 trend between the two groups; evidence in favour of the identifying assumption is that these are individually small and jointly insignificant. We plot the estimated γ_k with 95% confidence intervals in Figure 1 and Table A1 report the p-value from an F-test of the joint null $\alpha_k = 0$ for all $k \leq 10$.

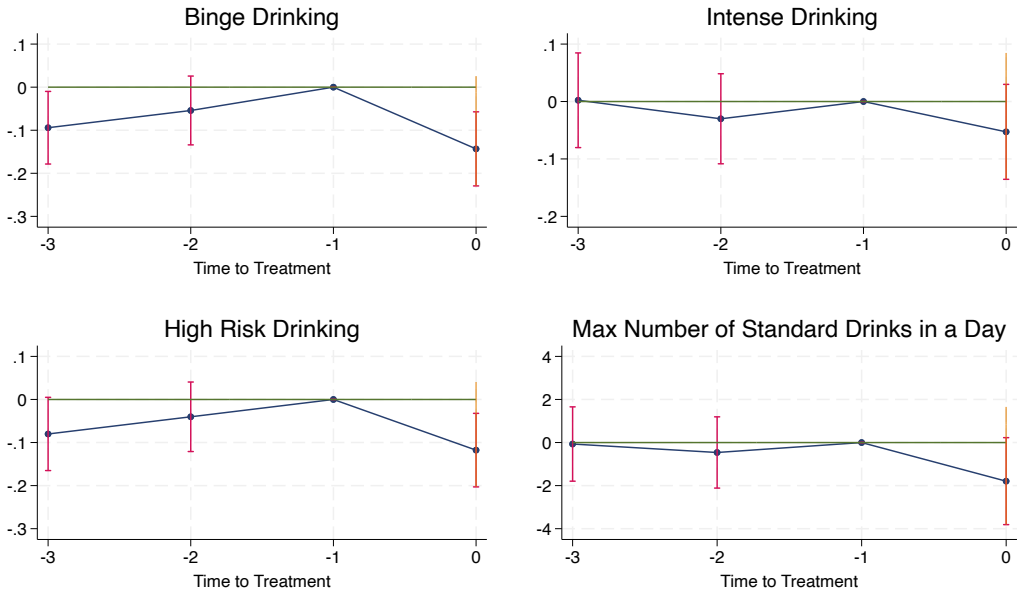

Figure 1: Coefficients and 95% confidence intervals from the event study specification in equation 2. Outcomes from left to right: binge drinking, intense drinking, high-risk drinking, maximum number of standard drinks in a day.

The second assumption is that survey timing within wave 11 is unrelated to potential outcomes. We address this in two ways. First, Table A4 shows that respondents classified as treated in wave 11 also responded systematically later in all prior waves: averaging each person's within-wave deviation across waves 2–10 yields a timing gap of 5.92 days between treated and control ($p = 0.016$). This pattern indicates that response timing is a stable individual characteristic established long before the pandemic, rather than a behavioural response to lockdown, and therefore unlikely to be endogenous to wave 11 outcomes. Second, Tables A5 and A6 show that this individual response-timing tendency is uncorrelated with pre-wave 11 drinking outcomes and with pre-determined characteristics such as gender, income, and employment status in wave 11. Together, these results support the assumption that treatment assignment is plausibly exogenous conditional on individual fixed effects and observed controls.

5 Results

We begin with the main results disaggregated by gender, then explore heterogeneity by child age and lockdown length, before turning to the mechanisms underlying the fathers'

drinking reduction and to secondary outcomes on mental health and smoking.

5.1 Main Results by Gender

Full-sample estimates are presented in Figure A2 in the Appendix and point consistently toward reduced drinking, but the gender-disaggregated results reveal that this average hides complete asymmetry between mothers and fathers. Tables 5 and 6 report these results.

COVID-19 exposure has no statistically significant effect on mothers across any alcohol outcome at either the extensive or intensive margin. For fathers, by contrast, the effects are large and consistent. The probability of binge drinking in the previous week falls by 16.5 percentage points (approximately 29% relative to the pre-lockdown mean), and the probability of intense drinking declines by 19%. The composite high-risk drinking indicator falls by 27%. At the intensive margin, the maximum number of standard drinks consumed in a single occasion falls by approximately four drinks, accounting for the heavy-drinking effects at the extensive margin. There is no significant change in the total number of drinking days or in total weekly volume for fathers, suggesting that COVID-19 reduces the peak intensity of drinking episodes rather than the overall frequency of drinking occasions.

Table 5: DID Results on Alcohol-Mothers

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.0462	-0.0146	-0.0256	0.0881	-0.136	0.677
	(0.0506)	(0.0499)	(0.0498)	(0.202)	(1.207)	(1.674)
Observations	2,112	2,112	2,112	2,071	2,112	2,112
R-squared	0.055	0.034	0.052	0.062	0.022	0.029
Number of id	561	561	561	561	561	561
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes
Baseline mean	0.28	0.19	0.28	1.13	3.47	5.22

Note: Fixed-effects regression using Waves 8–11. The specification includes individual and month fixed effects and controls for the number of children (categorical). Baseline means are calculated for the treated group in the pre-treatment period. Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: DID Results on Alcohol-Fathers

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.165**	-0.0963	-0.154**	0.201	-3.896**	-2.778
	(0.0670)	(0.0675)	(0.0672)	(0.267)	(1.857)	(2.664)
Observations	1,428	1,428	1,428	1,388	1,428	1,428
R-squared	0.078	0.052	0.071	0.038	0.065	0.047
Number of id	387	387	387	387	387	387
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes
Baseline mean	0.59	0.49	0.59	2.08	10.85	17.63

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Baseline means are calculated for the treated group in the pre-treatment period. Standard errors are clustered at the individual level.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

5.2 Heterogeneity by Age of Youngest Child

Figure 2 shows that the fathers' effect is driven by household composition. We split fathers into three groups based on the age of their youngest child: under 6, 6–12, and over 12. The reduction in high-risk drinking is present and significant for both groups with younger children, and of similar magnitude across these two groups. Fathers whose youngest child is over 12, by contrast, show a non-significant increase in binge drinking, a pattern consistent with prior findings using HILDA (Schurer et al., 2023).

This pattern by child age is consistent with the idea that changes in family engagement may have mattered. Fathers of young children are more likely to be anchored at home even under normal conditions; the lockdown may have intensified this domestic engagement while removing social drinking occasions. Fathers of older children lack this domestic

anchor and may experience social restrictions primarily as the loss of social outlets, with no offsetting increase in family engagement.

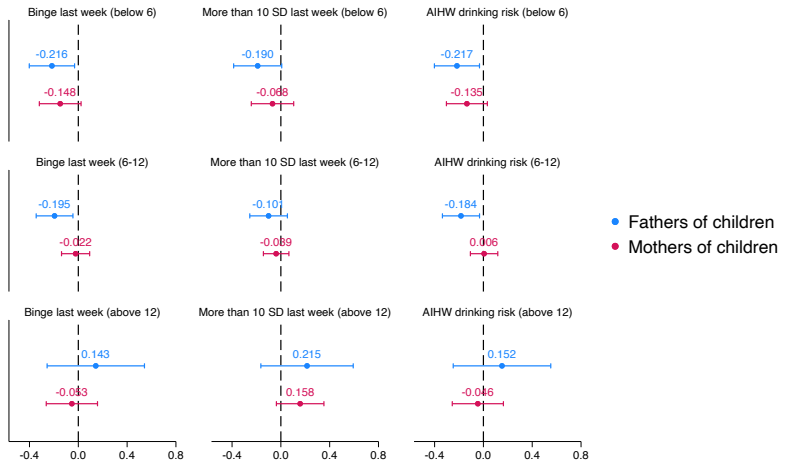

Figure 2: Effects of COVID-19 on fathers' alcohol consumption by age of youngest child. *Note*: Two-way fixed effects regression. All categorical outcomes are standardised. All waves included. Controls: month fixed effects, number of children (categorical). Standard errors clustered at the individual level.

5.3 Heterogeneity by Lockdown Length

Tables 7–8, and 9–10 present results separately for the initial lockdown (30 March to 12 May 2020) and the second, longer lockdown period beginning in July 2020. For mothers, neither period generates significant effects. For fathers, the initial lockdown presents little evidence of reductions during the first lockdown, followed by substantial reductions during the longer second lockdown: binge drinking, intense drinking, and high-risk drinking fall by 21.2, 15.5, and 19.8 percentage points respectively, and total weekly drinks also decline significantly.

This strengthening pattern is inconsistent with a simple reversion story in which early behavioural change dissipates over time. It is instead consistent with cumulative adjustment to a new domestic routine: as lockdown conditions persist, fathers' social calendar contracts further and the family-centred routine may become more established. This interpretation connects directly to the mechanisms we examine next.

Table 7: DID Results on Alcohol–Mothers during the First Lockdown

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	0.0183	0.0313	0.0366	0.0587	-0.0623	1.781
	(0.0659)	(0.0658)	(0.0643)	(0.270)	(1.447)	(2.404)
Observations	1,241	1,241	1,241	1,231	1,241	1,241
R-squared	0.069	0.037	0.063	0.066	0.034	0.037
Number of id	323	323	323	323	323	323
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 8: DID Results on Alcohol–Mothers during the Second Lockdown

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.0742	-0.0240	-0.0499	0.191	-0.0937	0.125
	(0.0571)	(0.0554)	(0.0564)	(0.230)	(1.519)	(1.841)
Observations	1,368	1,368	1,368	1,334	1,368	1,368
R-squared	0.072	0.045	0.070	0.070	0.028	0.037
Number of id	367	367	367	364	367	367
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 9: DID Results on Alcohol–Fathers during the First Lockdown

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.0404	0.0351	-0.0246	0.228	1.614	6.212*
	(0.0902)	(0.0987)	(0.0892)	(0.357)	(2.279)	(3.740)
Observations	817	817	817	813	817	817
R-squared	0.055	0.037	0.049	0.050	0.049	0.055
Number of id	215	215	215	215	215	215
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 10: DID Results on Alcohol–Fathers during the Second Lockdown

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.212***	-0.155**	-0.198***	0.164	-6.463***	-6.556**
	(0.0732)	(0.0726)	(0.0734)	(0.287)	(2.070)	(2.962)
Observations	972	972	972	936	972	972
R-squared	0.107	0.069	0.097	0.041	0.119	0.078
Number of id	266	266	266	263	266	266
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

5.4 Mechanisms

Three pieces of evidence help investigate the potential channels behind the reduction in fathers' drinking.

The first points to social restriction as the proximate driver.

We estimate two separate regressions on the probability of consuming at least one standard drink on weekdays versus weekends. Table 11 shows no effect on weekdays and a negative, statistically significant effect on alcohol consumption from Fridays to Sundays, consistent with the closure of pubs, bars, and other social venues reducing opportunities for weekend drinking.

Table 11: DID Results on Probability of Alcohol Consumption for Fathers

VARIABLES	(1) Probability of at least one drink Monday–Thursday	(2) Probability of at least one drink Friday–Sunday
did	0.0472	-0.161**
	(0.0707)	(0.0734)
Observations	1,388	1,428
R-squared	0.016	0.040
Number of id	384	387
Wave FE	Yes	Yes
Month FE	Yes	Yes
ID FE	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The second and third pieces of evidence come from a COVID-19 module administered to respondents surveyed during lockdowns.

The second suggests that financial distress is unlikely to fully explain the results. Economic stress could reduce drinking by constraining the budget available for alcohol, but 93.3% of treated respondents reported no job loss and 78.2% reported no reduction in financial capacity. Section 6 confirms this formally: excluding the minority who did report income losses leaves the estimates unchanged.

The third is consistent with increased family engagement as a relevant channel through which social restriction translates into a sustained behavioural shift. Figure 3 summarises responses to the open-ended question "What positive changes did COVID-19 bring to your life?", coded using AI-assisted clustering into seven thematic categories: family time, work and employment, health and lifestyle, community engagement, personal growth, environmental benefits, and financial savings. Fifty per cent of treated respondents cite increased family time—particularly time with children—as the most important positive change. No other category approaches this share. The dominant positive experience

of COVID-19 was therefore a reorientation toward home and family, which may have reinforced healthier domestic behaviour and provided an alternative structure to social drinking occasions.

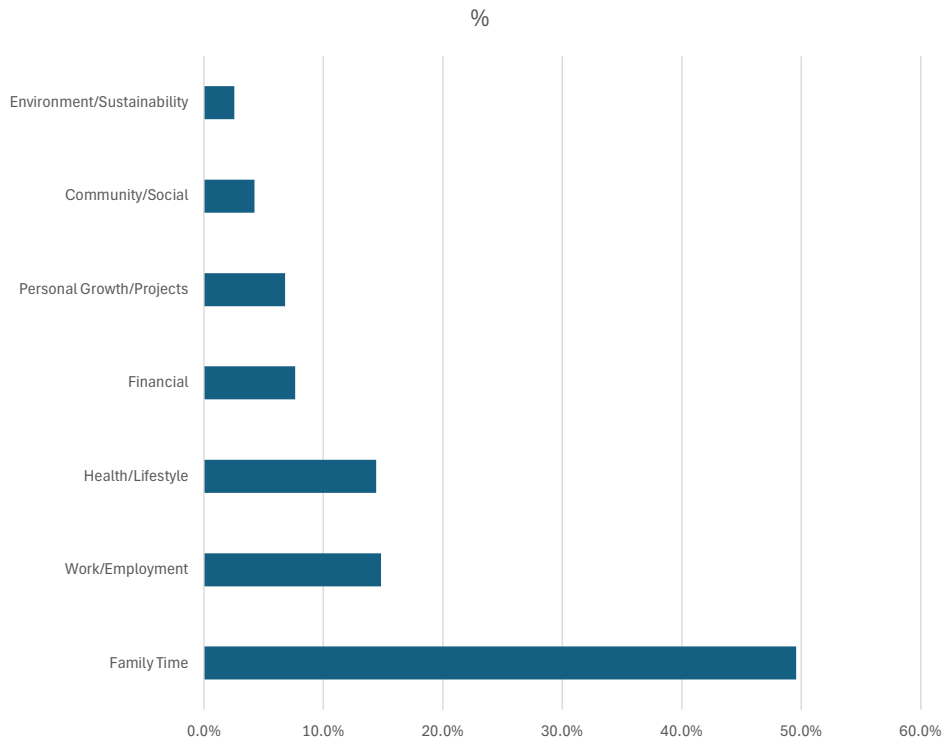

Figure 3: Distribution of themes in responses to "What positive changes did COVID-19 bring to your life?", wave 11 treated respondents.

Taken together, these patterns are consistent with an interpretation centred on reduced social drinking opportunities and increased family engagement. The contrast with mothers—who faced the same restrictions but experienced no reduction in drinking—is consistent with this account: if mothers were already the primary domestic caregivers, COVID-19 restrictions may not have represented the same qualitative change in their time use or social environment.

5.5 Secondary Outcomes: Mental Health and Smoking

Using the CIDI-derived depression measures available in waves 9–11, treated fathers show a lower probability of meeting the depression classification threshold, though this estimate does not reach conventional significance levels. Treated mothers report higher relationship satisfaction with their partners (Table A7). These directional improvements in well-being

are consistent with the broader interpretation that restrictions altered family dynamics.

For smoking (Table A8), there is no change in the number of days smoked in either the full sample of fathers or among current and former smokers. However, the number of cigarettes consumed per day declines among smokers and ex-smokers, although the estimate is not statistically significant. This reduction plausibly reflects the observed fall in alcohol consumption, since smoking and heavy drinking commonly co-occur in the social settings that the lockdown closed.

6 Robustness Checks

We conduct four checks on the sensitivity of the main results, focusing on fathers given that this is where the effects are concentrated.

First, we extend the estimation to all available waves rather than the restricted sample used in the baseline. Coefficient signs and magnitudes are unchanged; standard errors are somewhat larger owing to additional noise in the earlier waves. Figure A2 confirms that the qualitative pattern is fully robust to this extension.

Second, we examine whether the results are driven by mental health deterioration during the pandemic. If fathers who experienced stress-related mental health problems were both more likely to be surveyed during the lockdown and more likely to reduce drinking as a consequence, this could confound the estimate. We re-run the analysis excluding fathers who reported adverse mental health effects from COVID-19 in the two weeks prior to their survey (32.4% of wave 11 fathers). Figure A3 shows that the estimates remain negative and qualitatively similar, ruling out this channel.

Third, to address the pre-existing difference in child age between treated and control fathers in wave 11, we restrict the sample to fathers whose youngest child is aged 12 or under, improving comparability along a dimension that correlates with alcohol outcomes. Table A10 shows that the main results are if anything strengthened in this restricted sample, consistent with the heterogeneity findings in Section 5.

Fourth, we exclude fathers who reported reduced earnings capacity during the pandemic, directly assessing the financial distress channel. Table A11 confirms that the estimates remain negative throughout, with modestly wider confidence intervals reflecting the smaller sample, but the qualitative conclusions are unchanged.

7 Discussion and Conclusion

7.1 Discussion

This paper provides causal evidence that the COVID-19 pandemic substantially reduced heavy alcohol consumption among fathers in Victoria, Australia. High-risk drinking fell by 27%, binge drinking by 29%, and peak single-occasion consumption by around four standard drinks. These reductions are larger under extended lockdown, entirely absent among mothers, and concentrated among fathers of children aged under 12.

The evidence is consistent with a social-opportunity mechanism operating through limited social occasions and increased family engagement. The lockdown removed the primary social occasions for heavy drinking—weekend social gatherings, bars, and pubs—while simultaneously drawing fathers into greater domestic participation. That the decline is concentrated on weekends, that financial distress plays no major role, and that the majority of treated respondents identify increased family time as the main positive change of the lockdown all converge on this interpretation. The progressive strengthening of effects across lockdown periods argues against a transient mechanical response and in favour of a cumulative reconfiguration of daily routines.

The gender asymmetry highlights the mechanism further. Mothers faced identical external restrictions and, by most accounts, even greater childcare burdens during the pandemic (Cheng et al., 2021; Zamarro and Prados, 2021). Yet their drinking is unaffected. One plausible interpretation is that COVID-19 did not represent the same disruption to mothers' existing time-use patterns that it did for fathers: if mothers were already the primary domestic caregivers, they had less scope for a reorientation toward family life, and social restriction translated into stress and additional workload rather than into a positive reallocation of time.

Beyond alcohol consumption, we also document directional improvements in fathers' mental health, mothers' relationship satisfaction, and cigarette consumption among smokers.

7.2 Limitations

While the DiD design causally identifies the overall effect of COVID-19 exposure on drinking, the mechanisms we document are descriptive: we cannot establish formal causal

mediation between drinking reduction and family engagement or overall well-being, nor rule out unmeasured channels. The data capture alcohol consumption during the study period but not longer-run behavioural trajectories, so whether the reductions persisted after restrictions lifted remains unknown. These results should therefore be interpreted as evidence of a large short-run behavioural response concentrated among fathers of young children, rather than a definitive account of the mechanism.

7.3 Conclusion

This paper investigates the effect of lockdown exposure on parental drinking behaviours. The findings suggest that social-occasion structure is an important driver of heavy drinking among fathers of young children. A shock that closed pubs, removed weekend social gatherings, and anchored fathers at home generated reductions in binge and high-risk drinking that grew larger the longer restrictions lasted, and left mothers, who were already the primary domestic caregivers, entirely unaffected.

If heavy drinking among fathers is substantially shaped by social scheduling and occasion structure, this has implications for how interventions should be designed. Individual-level behaviour change programmes may be less effective than environmental and structural approaches that alter the occasions available for heavy drinking: licensing hours, venue density, workplace culture around after-work drinking, or policies that actively increase fathers' domestic and caregiving engagement. The lockdown evidence shows that such behavioural change is achievable and, crucially, that it strengthens over time once established. Whether voluntary programmes can replicate the social reorientation that lockdowns imposed involuntarily remains an open question, but the magnitude of the effects documented here suggests that occasion structure deserves greater attention as a lever for reducing heavy drinking in households with young children.

Declarations

Conflict of Interest

The authors declare no conflict of interest.

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Appendix

A. Information on Lockdowns

Lockdown 1 (31 March 2020 – 12 May 2020)

Statewide lockdown across Victoria.

Lockdown 1.5 (Postcode Lockdown, 1 July 2020)

Targeted lockdown in specific Melbourne postcodes:

- **3012**: Brooklyn, Kingsville, Maidstone, Tottenham, West Footscray
- **3021**: Albanvale, Kealba, Kings Park, St Albans
- **3032**: Ascot Vale, Highpoint City, Maribyrnong, Travancore
- **3038**: Keilor Downs, Keilor Lodge, Taylors Lakes, Watergardens
- **3042**: Airport West, Keilor Park, Niddrie
- **3046**: Glenroy, Hadfield, Oak Park
- **3047**: Broadmeadows, Dallas, Jacana
- **3055**: Brunswick South, Brunswick West, Moonee Vale, Moreland West
- **3060**: Fawkner
- **3064**: Craigieburn, Donnybrook, Mickleham, Roxburgh Park, Kalkallo
- **3031**: Flemington, Kensington (added 5 July 2020)
- **3051**: North Melbourne (added 5 July 2020)

Lockdown 2

- **9 July 2020**: Postcodes 3753, 3658, 3762, 3764, 3444, 3522, 3758, 3523, 3660, 3435, 3662, 3521, 3659, 3756
- **2 August 2020**: All remaining postcodes

Both Lockdowns 1.5 and 2 were in effect until 27 October 2020.

Lockdown 3 (13 February 2021 – 17 February 2021)

Statewide lockdown triggered by a UK-strain outbreak.

Lockdown 4 (28 May 2021 – 10 June 2021, extended)

Metropolitan Melbourne including Whittlesea and Southbank, following a Delta variant outbreak. Restrictions eased in regional Victoria on 3 June 2021.

Lockdown 5 (16 July 2021 – 27 July 2021)

Melbourne (Fitzroy, Carlton, Maribyrnong postcodes), following a further Delta outbreak.

Lockdown 6 (5 August 2021 – October 2021)

Extended Melbourne lockdown. Regional Victoria eased from 9 August 2021 but restrictions resumed on 21 August 2021 until 9 September 2021. Ballarat entered a separate 7-day lockdown from 16 September 2021.

Gradual Easing (28 September 2021 – 19 November 2021)

Staged statewide easing, with full reopening anticipated at 90% double-dose vaccination coverage on 19 November 2021.

B. Figures

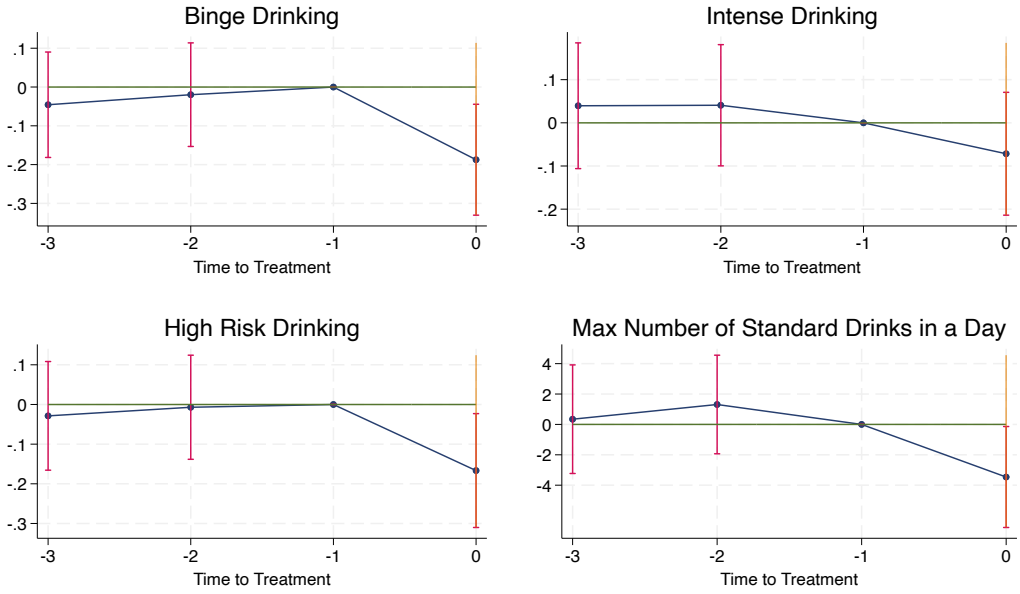

Figure A1: Event study: pre-trends, fathers only. Outcomes as in Figure 1. The joint null that all pre-treatment coefficients equal zero cannot be rejected for any outcome (see Table A2).

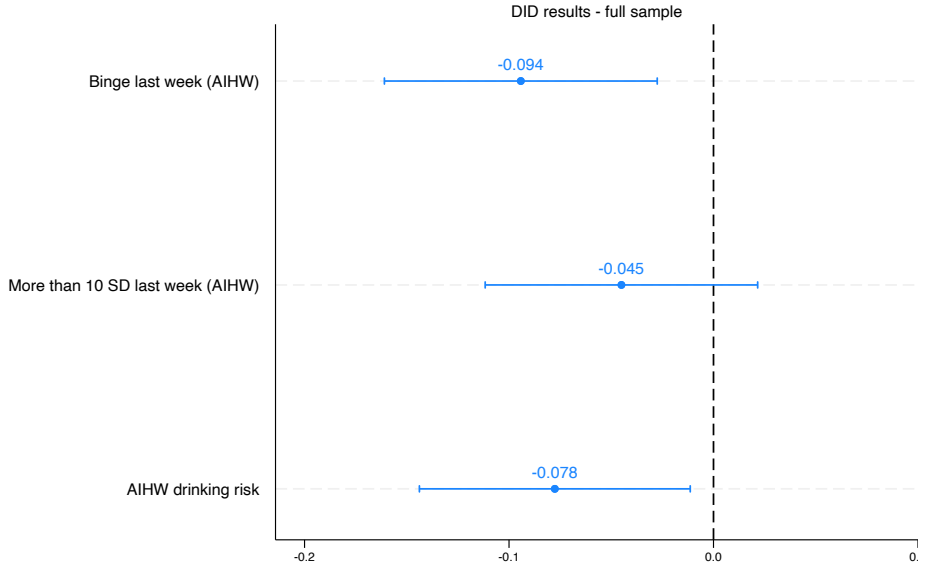

Figure A2: Effect of COVID-19 lockdown on alcohol consumption, full sample. Point estimates and 95% confidence intervals from Equation 1.

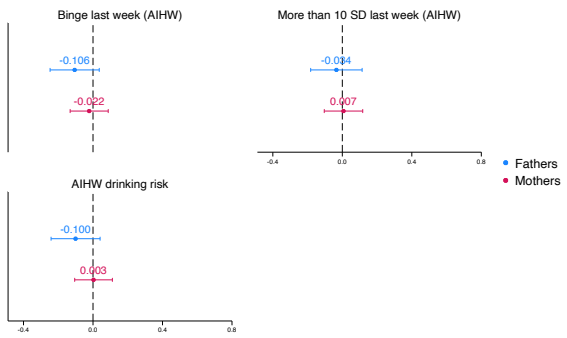

Figure A3: Robustness check: fathers only, excluding respondents who reported adverse mental health effects from COVID-19 in the two weeks prior to survey.

C. Tables

Outcome	**F-statistic**	**p-value**
AIHW drinking risk	$F(2, 924) = 1.71$	$p = 0.1821$
Binge drinking	$F(2, 924) = 2.44$	$p = 0.0876$
Heavy drinking	$F(2, 924) = 0.39$	$p = 0.6794$
Max drinks in a day	$F(2, 924) = 0.17$	$p = 0.8474$

Table A1: F-test

Note: F-test for full sample.

Outcome	**F-statistic**	**p-value**
AIHW drinking risk	$F(2, 374) = 0.10$	$p = 0.9071$
Binge drinking	$F(2, 374) = 0.22$	$p = 0.7999$
Heavy drinking	$F(2, 374) = 0.20$	$p = 0.8161$
Max drinks in a day	$F(2, 374) = 0.32$	$p = 0.7288$

Table A2: F-test

Note: F-test for sub-sample of fathers.

Table A3: Summary statistics by gender

Panel A: Males			
VARIABLES	count	mean	sd
Binge last week (AIHW)	1428	0.57	0.50
More than 10 SD last week (AIHW)	1428	0.49	0.50
AIHW_drinking	1428	0.57	0.49
N. of days drank	1388	2.20	2.03
Max drinks in a day	1428	10.19	14.39
Total drinks last week	1428	17.11	24.18
Depressed	1034	0.08	0.27
Dissatisfaction with your relationship	1135	1.05	0.25
N. of days smoked	1409	1.52	2.79
N. of cigarettes smoked	1409	19.29	43.73
Age	1428	33.09	7.03
Number of children	1428	1.13	1.26
Female	1428	0.00	0.00
Observations	1428		
Panel B: Females			
VARIABLES	count	mean	sd
Binge last week (AIHW)	2112	0.27	0.45
More than 10 SD last week (AIHW)	2112	0.20	0.40
AIHW_drinking	2112	0.28	0.45
N. of days drank	2071	1.22	1.69
Max drinks in a day	2112	3.63	9.03
Total drinks last week	2112	5.74	12.98
Depressed	1528	0.13	0.34
Dissatisfaction with your relationship	1714	1.11	0.39
N. of days smoked	2073	1.35	2.69
N. of cigarettes smoked	2073	13.96	34.29
Age	2112	32.93	7.01
Number of children	2112	1.17	1.20
Female	2112	1.00	0.00

Notes: Means and standard deviations reported separately for males (Panel A) and females (Panel B). Binary indicators are in [0,1]. AIHW = Australian Institute of Health and Welfare definitions.

Table A4: Average Response Delay Before Wave 11, by Treatment Status

Group	Mean Delay (days)	Std. Err.
Control	−1.23	0.45
Treated	4.69	0.52
Difference (T–C)	**5.92**	1.87
p-value	—	0.016

Note: Delay is days from each wave's mean survey date, averaged over waves 2–10. Positive values indicate later-than-average responses. Standard errors clustered by respondent.

Table A5: Fixed Effects Regressions of Outcomes on the Probability of Being an Early or Late Respondent

VARIABLES	(1) Full Sample	(2) Full Sample	(3) Full Sample	(4) Full Sample
Binge last week (AIHW)	-0.0155			
	(0.0185)			
	[0.402]			
More than 10 SD last week (AIHW)		-0.00467		
		(0.0204)		
		[0.819]		
AIHW drinking			-0.0170	
			(0.0184)	
			[0.356]	
Number of days drank				-0.00547
				(0.00608)
				[0.368]
Observations	2,592	2,592	2,592	2,592
R-squared	0.619	0.619	0.619	0.628
Number of IDs	925	925	925	919
Wave FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes

Fixed-effects regression using Waves 8–10. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

Table A6: OLS regressions of Pre-determined Characteristics on the Probability of Being an Early or Late Respondent

	(1)	(2)	(3)
VARIABLES	Full Sample	Full Sample	Full Sample
Female	0.0123		
	(0.0183)		
	[0.502]		
Number of children		0.00964	
		(0.0110)	
		[0.379]	
Age of youngest child (wave 11)			-0.0211
			(0.0130)
			[0.105]
Observations	948	948	948
R-squared	0.732	0.732	0.733
Wave FE	Yes	Yes	Yes
Month FE	Yes	Yes	Yes
ID FE	Yes	Yes	Yes

Robust standard errors in parentheses. p-values in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Effects on Being Depressed and Relationship Dissatisfaction, by Mothers and Fathers

	Panel A: Mums		**Panel B: Dads**	
	Depressed	Relat. Dissatisf.	Depressed	Relat. Dissatisf.
	(1)	(2)	(3)	(4)
did	0.0192	−0.266	−0.0646	−0.113
	(0.0589)	(0.195)	(0.0556)	(0.145)
	[0.744]	[0.173]	[0.247]	[0.439]
Observations	1,531	1,714	1,038	1,135
R-squared	0.022	0.052	0.044	0.035
Number of id	554	547	377	371
Wave FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 9–11 for cols. (1) and (3), and Waves 8-11 for cols. (2) and (4). The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A8: DID Results on Smoking Behaviour

VARIABLES	(1) Days smoked- all Fathers	(2) Days smoked- smokers and ex-smokers Fathers	(3) N. of cigs smoked by smokers and ex-smokers Fathers
did	-0.281	-0.383	-7.975
	(0.329)	(0.502)	(5.682)
	[0.394]	[0.446]	[0.162]
Observations	1,409	801	801
R-squared	0.078	0.174	0.198
Number of id	387	253	253
Wave FE	Yes	Yes	Yes
Month FE	Yes	Yes	Yes
ID FE	Yes	Yes	Yes

Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level. P-values in brackets.

*** p<0.01, ** p<0.05, * p<0.1.

Table A9: Robustness Fathers-all waves

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.109*	-0.0810	-0.101	0.191	-1.701	-0.155
	(0.0627)	(0.0601)	(0.0628)	(0.261)	(1.909)	(2.678)
Observations	3,463	3,463	3,463	3,423	3,463	3,463
R-squared	0.204	0.183	0.206	0.271	0.130	0.131
Number of id	387	387	387	387	387	387
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using all waves. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A10: Robustness: Fathers (excluding parents of older children)

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Binge last week (AIHW)	More than 10 SD last week (AIHW)	AIHW high risk	N. of days drank	Max drinks in a day	Total drinks last week
did	-0.222***	-0.150**	-0.213***	0.137	-3.932**	-4.122
	(0.0696)	(0.0723)	(0.0698)	(0.295)	(1.673)	(2.761)
Observations	1,187	1,187	1,187	1,157	1,187	1,187
R-squared	0.087	0.062	0.079	0.043	0.081	0.058
Number of id	321	321	321	319	321	321
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A11: Robustness Fathers-no reduced earnings capacity due to Covid-19

VARIABLES	(1) Binge last week (AIHW)	(2) More than 10 SD last week (AIHW)	(3) AIHW high risk	(4) N. of days drank	(5) Max drinks in a day	(6) Total drinks last week
did	-0.0945	-0.0429	-0.0819	0.148	-3.016	-0.00578
	(0.0793)	(0.0822)	(0.0795)	(0.316)	(2.150)	(3.341)
	0.234	0.602	0.304	0.640	0.162	0.999
Observations	1,002	1,002	1,002	995	1,002	1,002
R-squared	0.074	0.041	0.064	0.039	0.086	0.069
Number of id	268	268	268	268	268	268
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
ID FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Fixed-effects regression using Waves 8–11. The specification includes individual, month, and wave fixed effects and controls for the number of children (categorical). Standard errors are clustered at the individual level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.