

Research Report

Assessing Impact of COVID-19 and the Early Impact of Minimum Pricing for Alcohol on the Wider Population of Drinkers

Holloway, K.; Buhociu, M.; Murray, S.; Livingston, W and Perkins, A.

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Assessing Impact of COVID-19 and the Early Impact of Minimum Pricing for Alcohol on the Wider Population of Drinkers

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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Glossary

Acronym/keyword	Definition
APB	Area Planning Boards
APOSM	Advisory Panel on Substance Misuse
AUDIT	Alcohol Use Disorders Identification Test
HMPPS	Her Majesty's Prisons and Probation Service
MHH	Moderate, Hazardous, Harmful drinkers
MPA	Minimum Pricing for Alcohol – used to refer to the policy of setting a minimum price for alcohol
MUP	Minimum Unit Price – the level set per unit which is used to calculate the minimum price for alcohol. In Scotland, the policy itself is also routinely referred to as MUP.
NHS	National Health Service
NPS	Novel/New Psychoactive Substances (see also Spice)
PAG	Project Advisory Group
OTC	Over-the-counter medication
REA	Rapid Evidence Assessment
RTD	Spirit-based 'ready-to-drink' beverages
SARG	Sheffield Alcohol Research Group
Spice	Common name for particular type/s of NPS (i.e. synthetic cannabinoids).

There are several acronyms that are used within single paragraphs/passages – but nowhere else in the report. They have a specificity to the point made and are not general to the whole report. These are not listed here but are each given a full title at the first time of use.

1. Introduction

In May 2018, Welsh Government issued a specification for an evaluation that would assess the process and impact of the introduction of a minimum price for alcohol (MPA) in Wales. The contract was split into four 'lots': (1) a contribution analysis, (2) work with retailers, (3) qualitative work with services and service users, and (4) an assessment of impact on the wider population of drinkers.

Three of the contracts (1, 3 and 4) were awarded to a consortium of researchers based at the University of South Wales, Glyndwr University Wrexham and Figure 8 Consultancy¹. The work with retailers contract was awarded to the National Centre for Social Research. This report focuses on the assessment of impact on the wider population of drinkers and presents findings from research conducted nine months post-implementation of MPA in Wales (henceforth the second wave of the evaluation). The findings provide an important account of the early impact of MPA on drinkers in the wider population as well as the impact of COVID-19 and lockdown.

This report is based on data collected from qualitative interviews conducted with members of our longitudinal study sample.

Aims and objectives

The primary aim of this component of the evaluation is to assess the impact of the minimum price for alcohol legislation on the wider population of moderate, hazardous and harmful drinkers² (henceforth MHH drinkers) over a five-year period. The study is longitudinal in design and has four³ key reporting points: baseline/pre-implementation, nine months post-implementation, two years post-implementation and 42 months post-implementation⁴.

The primary objectives of the study are to:

1. Assess the attitudes of MHH drinkers towards the legislation
2. Assess the changes that MHH drinkers make in response to the legislation (e.g. changes in their use of alcohol and other drugs, changes in purchasing patterns, changes in their lifestyles)
3. Assess the impact of the legislation on the lives of MHH drinkers (e.g. employment, financial circumstances, health, relationships)
4. To undertake an analysis of household expenditure patterns, to assess the potential displacement of spending.

In the original specification for the research, the plan was to commission research that would assess the impact of MPA at 18 months⁵ and 42 months post-implementation of the legislation. However, given the confounding effects of the COVID-19 pandemic and lockdown, which ensued only weeks after MPA was implemented in Wales, funding was provided by Welsh Government for an additional wave of interviews with the longitudinal study sample nine-

¹ Lot 1 is led by Glyndwr University, Lot 3 is led by Figure 8 Consultancy and Lot 4 is led by University of South Wales.

² Definitions of these terms are presented later in this chapter.

³ Originally, the evaluation had three reporting points but an additional 'wave' was added in response to the COVID-19 pandemic.

⁴ In response to the COVID-19 pandemic and lockdown, the evaluation team was commissioned by Welsh Government to undertake an additional wave of interviews with the longitudinal study sample, 9-months post-implementation, in the Autumn of 2020.

⁵ The original specification suggested a first follow-up of 18 months after implementation, but this was subsequently changed to two years in light of the COVID-19 pandemic.

months post-implementation of the legislation. A fifth objective was therefore added to the study:

5. to assess the relative impact of MPA and COVID-19 on drinking patterns and purchasing behaviours in the nine-month period following implementation of the legislation.

It should be made clear that the purpose of this additional wave of data collection was primarily to undertake a detailed qualitative study of the impact of COVID-19 on the drinking behaviour of the longitudinal sample to provide context for future interpretation of data. In addition, feedback on the impact of the early stages of implementation was gathered although it was not intended that this study would provide any conclusive findings on the impact of MPA at this stage. The inability to draw definitive conclusions is based on two factors: i) it is too early in implementation to draw conclusions; and ii) this data collection is with a qualitative sample only and cannot therefore be generalised to draw conclusions. This should be borne in mind when considering the findings reported below.

Report structure

This report is the second of four reports that will be produced in relation to this project⁶. It is divided into three key parts. The first provides contextual information as well as a review of the most recently published literature on MPA and a review of research on the impact of COVID-19 on drinking patterns. The second focuses on the empirical research conducted as part of the project. It provides an overview of the methods used to conduct the research and presents findings structured around six key themes. The third part summarises the results, discusses the findings in light of the literature and recommends a series of actions to guide the research over the remaining study period.

The content of the individual chapters is summarised as follows:

Chapter 2 helps to put the research in context by outlining the legal and policy context of the evaluation. It also considers the process of implementing MPA on 2nd March 2020 and reflects on the campaign that publicised the policy across Wales.

Chapter 3 examines the body of research produced in the period since the COVID-19 pandemic first surfaced in early 2020. It reviews what is known about the impact of the pandemic on drinking patterns and related behaviours focusing on peer-reviewed literature.

Chapter 4 presents the results of a review of the literature on the impact of minimum pricing policies. The review updates more comprehensive reviews (see Holloway et al, 2019; Buhociu et al, 2021) and focuses on the impact of MPA on the wider population of drinkers rather than on a specific subset of drinkers in treatment.

Chapter 5 describes the methods used to gather the primary data and includes an explanation of the choices made and an overview of the procedures undertaken to gather and analyse the data. It also includes a summary of the characteristics of the sample of drinkers who were interviewed in this second wave of the evaluation.

Chapters 6 to 11 present findings from the primary research undertaken by the research team.

Chapter 6 focuses on issues relating to preparation for and awareness of the implementation of MPA. The chapter begins by investigating what actions, if any, were taken in anticipation of the implementation of MPA. It then moves on to examine awareness of any publicity about MPA in the period immediately before the law came into force.

⁶ Reports will also be produced two years and 42 months post implementation of the legislation.

Chapter 7 continues with the theme of awareness but focuses instead on the post-implementation period. The chapter includes sections on awareness of publicity about MPA as well as about changes in any prices and availability of alcohol products.

Chapter 8 moves on to examine changes in drinking patterns in the nine-month period following implementation of the legislation. The chapter is divided into two main sections in an effort to disentangle the impact of MPA from the impact of COVID-19 and lockdown on drinking patterns. The chapter ends with a short section in which other explanations for changes in drinking patterns are considered.

Chapter 9 focuses on changes in purchasing patterns. It begins by examining changes in spending and explores how any increases in expenditure were afforded and funded. The chapter moves on to consider changes in purchasing behaviours and reflects on the relative impact of MPA and COVID-19 on where and how often alcohol was purchased following implementation of the legislation.

Chapter 10 investigates changes in the use of other substances post-implementation of the legislation. It considers changes in the use of illegal drugs and other substances and reflects on the reasons why changes were or were not made.

Chapter 11 examines broader changes in the lives of drinkers in the months that followed implementation of the legislation. This final results chapter ends with a section that examines the observed impact of MPA and COVID-19 on the drinking patterns of family, friends and acquaintances of the longitudinal study sample.

Chapter 12 summarises the findings and reflects on them in light of the literature reviewed in Chapters 3 and 4. The report ends with some Concluding Comments followed by a short section in which we outline our Next Steps for the evaluation of the impact of MPA on the wider population of drinkers in Wales.

Language (labels and descriptors)

Throughout this report, the term ‘drinkers’ is used to denote anyone who has consumed alcohol in the last year, no matter the quantity consumed.

The language around alcohol harms can be confusing as it is not always clear what the terms mean (Alcohol Change UK, no date). Labels such as ‘problem drinking’, ‘alcoholic’, ‘dependent drinker’, and ‘harmful drinker’ are commonly used within the literature, yet they are not always used consistently.

There are also different ways of measuring the levels of risk associated with drinking (Alcohol Change UK, undated). Some measures of risk are based wholly on the number of units that drinkers consume each week while other measures (e.g. the Alcohol Use Disorder Identification Test – AUDIT) assess consumption patterns and feelings about drinking too. Confusion arises when the different methods of measuring risk use similar language even though they are measuring different things.

The AUDIT measures a drinker’s risk of alcohol-related harm based on their answers to 10 questions⁷. The AUDIT uses the terms lower risk (0-7), increasing risk (8-15) and higher risk

⁷ Each question is allocated a score of 0 to 4. The maximum possible score is 40.

(16+) to categorise drinkers on the basis of their scores. A score of 20+ on the AUDIT is sometimes categorised separately as 'possible dependence'⁸.

Consistent with other researchers, in this report the terms moderate, hazardous and harmful drinking are defined on the basis of AUDIT scores⁹. A moderate drinker is therefore someone scoring 0-7 on the AUDIT and considered to be at a low risk of alcohol-related harm. A hazardous drinker includes drinkers scoring between 8 and 15 on the AUDIT and deemed to be at increasing risk of harm. Harmful drinkers include people scoring 16 or more and assessed to be at a high risk of alcohol-related harm.

⁸ [Alcohol Screening Tool](#)

⁹ AUDIT scores were calculated for all research participants including survey respondents and interviewees.

2. Background and context

The background and context for minimum pricing for alcohol (MPA) have been set out in detail in two previous reports¹⁰. This chapter outlines the legal and policy context of the evaluation. It also considers the process of implementing MPA and reflects on the campaign that publicised the policy.

Evaluating MPA in Wales

The Act places a duty on Welsh Ministers to lay before the National Assembly and then publish a report on the operation and effect of the legislation at the end of a five-year review period. The results of that report will play an important role in determining whether regulations are made to provide for the continuation of MPA beyond its current six-year lifespan.

In accordance with the Act, Welsh Government has commissioned an evaluation of the operation and effect of the legislation over a five-year period. This report forms part of that evaluation and is based on data collected nine months post-implementation of MPA. It is the first of three 'post-implementation' reports that will examine alcohol consumption patterns and related behaviours among moderate, hazardous and harmful drinkers within the general population of Wales.

As noted earlier in the report, the original plan was to assess the impact of MPA at 18 months and 42 months post-implementation. However, an additional wave of interviews was added to assess the relative impact of MPA and COVID-19 on drinking patterns and related behaviours in the nine-month period following implementation of the legislation.

Implementing MPA

In November 2019, in preparation for the implementation of MPA in Wales, the Welsh Government published a range of resources for retailers on its website¹¹. This included general information posters, 'MUP calculation' posters, shelf edging and shelf barkers¹² as well as more detailed leaflets on how to calculate the minimum price for specific alcohol products.

Two months later, in January 2020, a guidance document was published on the WG website targeting retailers and Local Authorities¹³. The main purpose of this document was to provide guidance on how to calculate, implement and enforce the law on minimum pricing.

This guidance is primarily aimed at supporting retailers and local authorities in relation to the calculation, implementation and enforcement of minimum pricing for alcohol – but it also includes information on the Act relevant to other stakeholders (p.1).

In addition to the posters, leaflets and guidance documents, Welsh Government also issued an 'MUP Calculator App'. Reference to the App is included in the guidance document cited above as well as on the [WG website](#) where it states:

¹⁰ [Holloway et al. \(2019\)](#), [Buhociu et al. \(2021\)](#).

¹¹ [Resources for retailers](#)

¹² A shelf 'barker' is a clear PVC plastic pocket, which holds price labels and other information on products, that slot into shelf edge data strips in shops.

¹³ [Guidance on implementing MPA](#)

An MUP app is available on both Apple App Store and Android Play Store. It can be found by searching for 'MUP Wales Calculator'.

Two weeks before implementation, on 17th February 2020, a broader publicity campaign targeting the general population about MPA was launched¹⁴. The campaign included advertisements on social media, national and local radio and online, but not on television. The campaign included a range of posters that were shared on social media (Twitter and Facebook) all emphasising the health benefits of MPA. For example: 'a minimum price for alcohol will save lives', 'Minimum unit pricing could save 66 lives per year' and 'Drinking too much alcohol is a major cause of death and illness in Wales'. A short two-minute [animation](#) explaining the introduction of the new law was also posted on the WG's YouTube channel on 2nd March 2020.

It is understood from Welsh Government representatives that leaving the launch of the media campaign until a fortnight before implementation was based on marketing advice and experience with other campaigns suggesting that a two-week lead-in period would maximise awareness of the messages and minimise desensitisation prior to implementation.

In addition to the public media campaign and the development of resources for retailers, Welsh Government also funded a series of seven awareness-raising workshops that were designed to help services prepare for the introduction of MPA in Wales. The workshops were organised in response to concerns about a general lack of awareness of MPA within treatment and support services and concerns over the possible unintended consequences of the legislation that had been identified by Holloway et al. (2019) in the 'Switching study'. The events were held across Wales over a three-month period (December 2019 to February 2020) and were attended by 112 representatives from: third-sector organisations, the NHS, licensing, trading standards, police, and Area Planning Boards (APBs). Alongside this, officials provided regular updates to APBs (through their meetings with APBs) on the MPA developments to ensure that they were building the possible impact of MPA into their provision of services.

Summary

In this chapter an overview of the process of implementation has been provided and the way in which Welsh Government (a) helped retailers prepare for MPA in the months leading up to implementation and (b) increased awareness of MPA within the general population in the two weeks prior to its introduction on 2nd March 2020 have been summarised.

¹⁴ [BBC News article](#)

3. Impact of COVID-19 on alcohol use and related behaviours

Key messages:

Searches of the literature identified 59 studies that had examined the impact of COVID-19 on alcohol consumption and related behaviours. Most of the research was based on cross-sectional research designs and survey methods with very few studies based on longitudinal designs or qualitative methods. The results corresponded broadly with the results of two reviews of the literature in noting that most people maintained existing patterns of alcohol use following the pandemic. Where changes were reported, these varied across studies with some reporting larger increases than decreases while other studies reported the opposite. However, there seemed to be a general agreement that heavier drinkers were the most likely to increase consumption and experience more alcohol-related harms in the period following the emergence of COVID-19. While there seems to be some agreement across the evidence base in terms of the broad direction of findings, it is important to note that the studies on which the empirical findings are based vary enormously in terms of their design, methods and samples. Any conclusions must therefore be drawn with a degree of caution.

By the time the Public Health (Minimum Price for Alcohol) (Wales) Act 2018 came into force on 2nd March 2020, the global COVID-19 pandemic was emerging. Within three weeks of the implementation of MPA within Wales, the UK entered a full pandemic lockdown. During the subsequent 12-month period, Wales entered two more lockdowns. Each lockdown period brought vast restrictions on lifestyles, including the closure of hospitality venues and a ban on alcohol consumption and purchasing in on-licensed settings. Hence, for a large portion of the period following the implementation of MPA, alcohol has only been available to buy from off-licence settings.

The impact of these changes, and of the pandemic more broadly, on alcohol consumption has attracted significant media attention. Some stories have referred to alarming increases in drinking while others have referred to decreases. For researchers tasked with assessing the impact of MPA on drinkers in the general population, the situation poses a particular challenge. How can we disentangle the relative impact of COVID-19 on drinking and related-behaviours from the impact of MPA?

In this chapter, the process of addressing this complex situation is commenced by drawing on published peer-reviewed research to explore what happened to alcohol use and purchasing since MPA was implemented in March 2020. This section starts by describing the methods of the literature search and moves on to summarise what the peer-reviewed research has shown about the impact of COVID-19 on drinking.

Search strategy and selected studies

The review followed a similar approach to the previous reviews¹⁵ (and the review presented in Chapter 4) whereby relevant pieces of literature were identified through (a) searches of the Applied Social Sciences Index and Abstracts (ASSIA), and (b) searches using Google Scholar to identify additional literature that may not have been found via the database searches. In

¹⁵ [Holloway et al \(2019\)](#), [Buhociu et al. \(2021\)](#).

terms of eligibility, studies assessing the impact of COVID-19 on alcohol consumption and related behaviours (e.g. purchasing, alcohol-related hospital admissions) published in the English language in the period since the pandemic emerged at the end of 2019 were included in the review.

Search results

This section, describes the literature searches and summarises the search results. An overview of the characteristics of the eligible papers is then presented, including: country of origin, design and methods, samples and outcome measures.

Search methods

Within ASSIA, a Boolean search term using key words (i.e. AB((alcohol OR drink*) AND (COVID* OR coronavirus OR pandemic) AND (effect OR impact OR change* OR alter*)) was used to identify studies that had investigated the impact of COVID-19 on drinking patterns. The search identified 58 studies of potential relevance. The abstracts of these studies were reviewed, and 27 publications appeared to match the eligibility criteria (i.e. they included an assessment of the impact of COVID-19 on alcohol use and/or related behaviours) and full-text copies were subsequently obtained.

A search of Google Scholar using the same search criteria as for ASSIA, identified 55 potentially relevant studies. The abstracts of these studies were reviewed and after excluding duplicates (i.e. papers already identified through the searches of ASSIA), 24 publications that matched our eligibility criteria were identified and full-text copies were subsequently obtained.

In addition to these systematic searches, a further eight eligible papers that were identified through our networks of contacts in the field were included (e.g. through email exchanges and notifications).

The focus of each of the 59 selected studies along with a detailed analysis of their findings are presented in tables in a separate Technical Report¹⁶. Here, an overview of the key findings in flowing text is presented. First, however, the characteristics of the literature as a whole are summarised.

Country of origin

In total, 59 eligible publications based on research conducted in a wide range of countries across the world were included in the review. This included one systematic review of the literature, which summarised findings from studies conducted in 34 different countries (Bakaloudi et al., 2021) and a review focusing on data relating to England (Public Health England, 2021). Some studies were based on data collected from multiple countries including two studies that included more than 30 countries. Most, however, were based on research conducted in just one country and more often than not this was the USA or the UK (see Table 3.1).

¹⁶ The Technical Report is available in English on request.

Table 3.1 Eligible studies by country

	Frequency
USA	20
UK	12
Australia	4
India	4
Multiple countries	4
Norway	3
Austria	2
Italy	2
Canada	1
Chile	1
France	1
Japan	1
Nepal	1
Poland	1
Spain	1
Turkey	1
TOTAL [1]	59

Research design and methods

While all of the studies examined changes in alcohol consumption and/or related behaviours before and after COVID-19, most publications presented findings from research based on a cross-sectional research design that involved the collection of data at a point in time rather than following samples over time (n=52). This included:

- 37 studies based on questionnaire surveys
- 4 studies based on interviews and/or focus groups
- 10 studies based on the analysis of other types of data (e.g. hospital admissions)

In the majority of cases (n=33) the cross-sectional studies examined changes retrospectively by asking participants to reflect back on pre-COVID-19 times and recall their behaviour at that time. This approach is useful in that it enables researchers to monitor trends over time among large samples. It is particularly helpful when the opportunity of gathering baseline (e.g. pre-COVID-19) data has been missed. The main drawback, however, is that the method relies on participants being able to recall accurately behaviours undertaken some time ago. This can be particularly problematic for questions relating (a) to behaviours before and after a specific date in time, which may be hard to pinpoint in time, and (b) to alcohol consumption and related behaviours, which may (for some drinkers) be difficult to recall accurately.

Eighteen of the cross-sectional studies included more than one data collection point, which enabled changes over time to be examined without relying so heavily on the powers of recall (e.g. before and after COVID-19, or during and after lockdown). Repeat cross-sectional studies with independent samples are useful for allowing researchers to assess trends over time (i.e. changes in alcohol consumption and related behaviours). However, the use of different samples of participants at each data collection point makes it difficult to assess whether changes in prevalence reflect a trend or simply differences between different groups sampled from the population (Sedgwick, 2014).

Studies based on a longitudinal research design that followed cohorts of participants over time and included data collection points both before and after COVID-19 were rare (n=6). Given

the unprecedented nature and unpredictable emergence of the pandemic, inevitably it was only ongoing longitudinal research studies that were able to compare outcomes among sample members before and after the pandemic emerged.

Table 3.1 provides an overview of the designs and methods used in the included literature. In terms of methods of data collection, most of the primary research was based on participants self-reporting alcohol consumption and/or related behaviours in online questionnaire surveys (n=42) or as part of interviews or focus group discussions (n=5). Ten studies were based on analyses of other kinds of data including: hospital admissions, alcohol-related tweets, Google trend searches, and hair analyses. The remaining two publications were reviews of the literature, which as noted above included one systematic review and one focused mainly on data relating to England.

Table 3.1 Design and methods of included literature

Design and methods	After only	Before and after	TOTAL
Cross-sectional research			
Surveys	28	9	37
Interviews/focus groups	4	0	4
Other data	1	9	10
Total cross-sectional	33	18	51
Longitudinal research			
Surveys	-	5	5
Interviews/focus groups	-	1	1
Other data	-	0	0
Total longitudinal	-	6	6
Literature reviews	-	-	2
TOTAL	33	24	59

Notes: '-' = not applicable.

Samples

Most of the self-report studies were based on convenience samples of adults (n=24) or college/university students (n=6) recruited from the general population through online advertisements. The remaining studies targeted specific populations including: adolescents, cohabiting couples, people who endorsed alcohol use, young adults (aged 18-23), older adults (aged 50+), adult twins, parents with two adolescent siblings, drug/alcohol users/injectors, binge drinkers, service users, service providers, vulnerable groups (e.g. those living in a high deprivation area, those with mental health problems and those with a physical high-risk health condition for COVID-19), sexual and gender minority students, college/university students and staff.

Outcomes

All of the eligible studies assessed the impact of COVID-19 on alcohol consumption and/or related behaviours. The studies varied, however, in terms of (a) what behaviours they investigated and (b) how these behaviours were measured. Unsurprisingly given our eligibility criteria, the most commonly assessed behaviour was alcohol use or consumption. However, the way in which consumption was measured differed across the studies with some focusing

on frequency (i.e. how often), some on quantity (i.e. how much) and others measuring and sometimes combining the two (e.g. through the use of the AUDIT). To complicate matters further, the studies also varied in terms of how frequency and quantity were measured. For example, in relation to frequency of consumption, there were variations in terms of the time period over which frequency was assessed (e.g. weekly or monthly). In relation to quantity consumed, there were variations in terms of the time period over which quantity was counted (e.g. a typical day or week).

In addition to consumption, changes in other outcomes were also investigated, including: risky alcohol consumption, parents allowing their children to drink, severe alcohol intoxication, alcohol-related liver disease, alcohol-related hospital admissions, alcohol-related mortality, purchasing, alcohol-related tweets, alcohol-related Google Trend searches, and alcohol withdrawal.

One final point to note in relation to outcomes is the period during which the impact was measured. Some studies focused on the period in the immediate aftermath of COVID-19 (e.g. April 2020) while others examined changes occurring several months later. Inevitably, given the focus on peer-reviewed research and the length of time that it takes to get papers published in peer-reviewed journals, most of the publications included in this review had not examined long-term, lasting changes in alcohol consumption and/or related behaviours.

Summary of included studies

Fifty-nine eligible studies were identified through searches of ASSIA, Google Scholar and through our networks of contacts in the field. The sample included studies from a wide range of countries, but most were from the US and UK. Most studies employed cross-sectional designs and most involved participants self-reporting current and/or past alcohol use and related behaviours. The majority of studies sampled adults from within the general population, but many studies focused on particular sub-groups the most common of which was university students. All studies examined changes in alcohol consumption and/or related behaviours but there was considerable variation in how the changes were measured. There was also significant variation in terms of the period over which the changes were measured. These variations make synthesis challenging and should be borne in mind when drawing conclusions from this evidence base.

Research findings

In this section the challenge of synthesising the evidence base is undertaken by summarising findings from across the 59 included studies¹⁷. The section begins by providing an overview of the two literature reviews that were identified in the searches. It then moves on to examine key findings from the empirical research grouping them in terms of the design and methods used.

Literature reviews

Searches of the literature identified two publications that reviewed and summarised findings from across a broad range of research including peer-reviewed and grey literature. The review conducted by Public Health England (2021) examined changes in alcohol consumption and alcohol-related harm in England using different kinds of data collected before and during COVID-19. The review is useful in that it examines a range of different outcomes including: volume of duty-paid alcohol, volume sales, consumption, alcohol-related morbidity and mortality. A short summary of this review is presented below.

¹⁷ See Appendix 4 for a list of the studies and their key features.

Despite the closure of on-trade premises there were notable changes to alcohol consumption. *During the lockdown, the total volume of alcohol for which duty had been paid (including off and on-trade) in the year 2020 to 2021 was 1% less than prior to the pandemic. Volume off-sales increased by 25% according to data from a consumer purchasing panel.* Increases were found in all types of products, with the greatest increase being beer (+31%). Further increases were seen in spirits (+26 %), wine (+20%) and cider (+18%). Among those households that provided continuous data between 2018 and 2020, the total volume of off-trade sales increased by 24% amounting to an extra 12,607,408 litres. Analyses of variations by type of buyer showed that the heaviest buying quintile increased purchasing by 14% accounting for 42% of the total increase.

The authors highlighted that survey data measuring self-reported consumption indicates a polarisation in drinking behaviours. Many respondents in the survey data reported that they consumed alcohol at roughly the same amount and frequency as prior to the onset of the COVID-19 pandemic. In surveys that focused on comparing drinking behaviours both prior to and during the pandemic period, it was found that those who drank heavily before tended to report increasing consumption during the pandemic. Between March 2020 and March 2021 respondents were found to have increased their levels of consumption to high risk levels. However, the authors note that the surveys and polls on which these findings were based were low quality and reporting of methods varied. *Within the higher quality studies, a clear pattern of increasing alcohol use was reported. This was explained by increases among drinkers already drinking at high levels prior to the pandemic rather than to increases among more moderate drinkers.*

Changes to alcohol-specific morbidity and mortality were found in 2020. In relation to morbidity, a decrease of 3% was observed in the rates of unplanned admissions to hospital for alcohol-related causes during the onset of the COVID-19 pandemic. The only increase found was regarding unplanned admissions for alcohol-related liver disease (ALD) at 14%. During the onset of the pandemic the rates of ALD were consistently higher than baseline.

In relation to mortality, there was a 20% increase in the total number of alcohol-specific deaths in 2020 in comparison to the previous year. Deaths due to mental and behavioural disorders due to alcohol and alcohol poisoning also increased (by 11% and 15% respectively). Alcohol-related liver disease deaths accounted for 80% of alcohol-specific deaths in 2020 and were 21% higher than in the previous year.

Overall, the findings highlight that the COVID-19 pandemic had a varied impact on alcohol consumption and harm. Those who were heavy buyers of alcohol prior to the pandemic were found to be the main contributor to the increases in off-trade purchasing. Although most of the respondents reported no change in their drinking behaviours during the lockdowns, the heavier drinkers reported higher levels and frequencies of consumption than before the onset of COVID-19, indicating an elevated risk to this group of alcohol-related harm. Moreover, while alcohol-related hospital admissions have decreased as compared to the pre-pandemic period, alcohol-related deaths are significantly higher than before the pandemic indicating a need for action to prevent further deaths.

The second review conducted by Bakaloudi et al. (2021) employed systematic methods to investigate the impact of the first lockdown period (March to May 2020) on alcohol consumption and snacking behaviour. PubMed, Scopus and Web of Science databases were used in a systematic search to review changes to people's snacking, ordering of food and their intake of alcohol. Studies from 34 different countries were included in the search and a total of 1489 studies were identified. After removing duplicates (n=642) and ineligible papers (n=847) a final total of 32 cross-sectional studies were identified as eligible for inclusion.

Snacking was found to have increased for a significant portion of the population whereas fast food and ordered food was found to have decreased. Changes in alcohol consumption were reported in 23 cross-sectional studies. In 17 studies, consumption of alcohol remained unchanged for the majority of participants. However, for those other participants whose consumption had changed, there was a tendency towards an increase in consumption (n=13) rather than a decrease (n=4).

It is important to note that the studies observed were across varying time periods (e.g. initial stages of lockdown and the easing of restrictions) and countries where the lockdown took effect at varying times and had differing restrictions in place. As a result, some of the studies showed an increase in the consumption of alcohol at the early stages of the pandemic whereas others showed an increase towards the end of the lockdown period.

Increases in reported consumption during the initial period of the pandemic were observed in many countries (France, Australia and China). Countries such as Poland and the USA, however, saw an increase of alcohol intake at the end of the lockdown. Explanations were discussed for this disparity, including the suggestion that those who drank more during the early stages of the pandemic did so due to anxiety and fear of the unknown.

In summary, both reviews found that drinking patterns remained largely unchanged for the majority of people. However, when changes were noted, these were more often increases than decreases. Increases in consumption were particularly prevalent among heavy drinkers. Relatedly, admissions for alcohol-related liver disease and deaths due to ALD increased following COVID-19. While the reviews are fairly consistent in their findings, it is important to note the weaknesses in the evidence base, which is characterised by poor quality studies and conflicting methodologies.

Cross-sectional research – self-report studies

Thirty-eight studies included in the review were based on cross-sectional surveys that examined changes in alcohol consumption and/or related behaviours. Most of the papers presented findings in terms of either (a) the proportion changing (or not) their consumption of alcohol, and/or (b) changes in the mean number of drinks consumed or the mean number of days on which alcohol was consumed. Below we present a summary of the findings across this body of research. For more detailed information about the specific studies, please see Appendix 4 and the separate Technical Report¹⁸.

Changes in patterns of alcohol use (% and means)

Twenty of the studies presented figures relating to the proportion of people who had either increased, decreased or maintained pre-existing levels of alcohol consumption following the pandemic.

All 20 studies provided data on the proportion of people who had increased their consumption of alcohol following the pandemic. The figures ranged from 13% to 60% with a crude average (bearing in mind the methodological and sample differences) across the studies of 25%.

Fifteen studies provided data on the proportion of people who had decreased their consumption of alcohol post COVID-19. The figures ranged from 9% to 45% with a crude average across the studies of 25%.

Thirteen studies provided data on the proportion of people whose alcohol consumption had remained unchanged following COVID-19. The figures ranged from 19% to 70% with a crude average of 46%.

¹⁸ The Technical Report is available in English on request.

Twelve of the 20 studies provided the full set of results (i.e. the proportions that increased, decreased and remained unchanged). The majority of these studies (n=10) found that most people had not changed their alcohol use in the period following COVID-19.

A further six papers examined change using means rather than percentages. In terms of the mean number of drinks consumed, the results were mixed with two reporting decreases, one reporting an increase and one reporting no change. In terms of frequency of use (i.e. the mean number of days consumed), the results were more consistent with all four studies reporting an increase in frequency of use.

Changes in patterns of use (other figures)

The remaining 12 cross-sectional survey studies presented findings in other ways and the findings were mixed in terms of whether alcohol use and associated behaviours increased or decreased following the pandemic.

In relation to increases, Anderson et al. (2021) reported a 41% increase in alcohol purchases following COVID-19. Ustun (2021) found that those people who had to change residence during the pandemic were more likely to start drinking and smoking. Wisk and Buhr (2021) found that respondents (compared with historical controls) had significantly higher odds of any alcohol use, significantly more days of alcohol use and greater total drinks consumed. Christie et al. (2021) found that participants with histories of problems related to drug use reported an increase in alcohol and cigarette use and a decrease in cocaine use during social distancing.

In relation to decreases, Prestigiaco et al. (2021) identified a significant decrease in drinking quantity but no change in frequency during the first month of the pandemic. Ryerson et al. (2021) found that students living on/near campus decreased alcohol use after COVID-19 compared with those living under normal circumstances. Salazar-Fernandez et al. (2021) identified a gradually decreasing trajectory during the pandemic (July to October) implying that participants reduced their alcohol consumption over time.

Three of the studies focused specifically on stress and noted that alcohol problems were more prevalent among those with more stress. Rodriguez et al. (2021) found that psychological stress was associated with higher scores on all drinking indices and that men's financial stress was positively associated with own and partners' alcohol problems. Flaudius et al. (2021) found that alcohol-related problems were more prevalent among the most stressed students. Budimir et al. (2021) found that alcohol and cigarette consumption was a positive predictor of lower psychological life quality, wellbeing, and higher perceived stress, depression, anxiety and insomnia.

Cross-sectional research – other data sources

Our searches identified 10 papers that were based on cross-sectional research designs but used data other than self-report. A summary of these papers can be found in Table 3.2. All the papers found are international studies, with the largest amount (n=3) based in India. Five present the results of secondary data analyses including: alcohol consumption levels before and after the pandemic, the presence or increase of Alcohol Liver Disease (ALD) and hospital admissions for alcohol intoxication. Two analysed Google Trends data and one analysed alcohol-induced blackout tweets during the pandemic. One study carried out a hair analysis to assess the levels of alcohol and substance misuse, and one conducted statistical modelling on alcohol-related liver disease in the US.

Table 3.2 Characteristics of cross-sectional research – other data sources

Author(s)	Country	Method	Before and after
Thomas et al. (2020)	India	Secondary data analysis	After only
Alladio et al. (2021)	Italy	Hair Analysis	Before and after – different samples
Chinnaratha and Harding (2020)	Australia	Secondary data analysis	Before and after – different samples
Ghosh et al. (2021)	India	Google trend data	Before and after – different samples
Grigoletto et al. (2020)	Italy	Secondary data	Before and after – different samples
Itoshima et al. (2021)	Japan	Secondary data	Before and after – different samples
Singh et al. (2021)	India	Google trend data	Before and after – different samples
Ward et al. (2021)	USA	Tweet analysis	Before and after – different samples
Julien et al. (2021)	USA	Statistical modelling	Before and after – different samples – modelled scenario
Ghimire (2020)	Nepal	Secondary data	Before and after – different samples – comparison of earthquake and covid-19

Cross-sectional studies – other data sources (after only)

Thomas et al. (2020) conducted an observational study in India of service users who had been admitted into the De-addiction Centre, NEST and Jubilee Mission Medical College and Research Institute. The pandemic led to the closures of outlets that sell alcohol-related drinks in March 2020. Reports of an increase in suicides in the area were attributed by the media to the lack of alcohol. Thomas et al. (2020) conducted observations of 17 service users from the point of closure non-essential goods. Withdrawal symptoms were found to be the most common reason for consultation of Alcohol Use Disorder (AUD) service users. They reported an increased availability of illicit alcohol through unlicensed sources and an associated increase in criminal activity. The authors further noted that there were shifts to other intoxicants and an increase in more alcohol-related deaths.

Cross-sectional studies – other data sources (before and after – different samples)

Alladio et al. (2021) explored the impact of the COVID-19 pandemic on alcohol intake and substance misuse in Italy¹⁹. They monitored the ethyl glucuronide (EtG) concentration in hair as a biomarker for ethanol consumption. The data were collected from April to August 2020 to evaluate the behaviours related to alcohol intake. The data were then compared with data reported in the previous four years (2016-2019). The authors found an increase in the percentage of participants classified as low risk drinkers (from 60% to 79%). However, when the data were compared to the previous four years, they found a decrease in the participants classified as moderate and chronic drinkers (-12 and -7%, respectively). Importantly they noted that those who already had a substance misuse problem prior to the onset of the pandemic enhanced their harmful behaviours.

Chinnaratha and Harding (2020) aimed to review the impact of the COVID-19 pandemic on alcohol-related liver disease as it is now an emerging public health issue in Australia. An audit was conducted that compared the numbers of alcohol-related admissions to a tertiary hospital during the lockdown (March 2020 to May 2020) to the previous year. It was concluded that the number of people who were diagnosed with alcohol-related conditions increased by 11% from 336 in 2019 to 372 in 2020. A further increase was observed in the number of people treated

¹⁹ The COVID-19 pandemic emerged in Italy in February 2020 roughly a month before emerging in the UK. A two-month delay is needed to identify any change of alcohol consumption in a hair sample. Alladio et al.'s (2021) analysis therefore focused on data collected April to August 2020.

in the emergency department and subsequently discharged (117 to 169). Those who required admission for alcoholic hepatitis was observed to increase by 11% and those who presented with alcohol dependency symptoms and acute toxication increased by 34% and 48% respectively.

Ghosh et al. (2021) conducted a study into Google Trends data. The aim was to test whether Google Trends data could indicate population responses to the pandemic and the public health impact of alcohol policy. The searches on Google Trend provide a relative search volume (RSV) which relates to the query share of a user-specified location and period. Any changes in the mean RSV of user-specified search inputs were subsequently analysed over three different time periods, including before and after prohibition of alcohol in India. The authors found that post-implementation of prohibition during lockdown, a significant increase in the RSV was observed for searches related to: alcohol withdrawal, how to extract alcohol from a sanitiser, alcohol home delivery online, alcohol home delivery, and sleeping pills. A rapid, robust and consistent change was found in the Google Trends search with the changing alcohol policy.

Grigoletto et al. (2020) observed the effect of the lockdown in Italy on adolescent health from the perspective of an emergency department (ED). The lockdown represented a stressor that caused an onset of mental illness including depression, suicide attempts and substance misuse. It was reported that emergency departments were experiencing a peak of arrivals/admissions due to severe alcohol intoxications in young adults and adolescents at the end of the COVID-19 lockdown. The aim of the research was to review the ED data and examine whether there was an impact on alcohol intoxication cases. Grigoletto et al. (2020) reported that the rate of severe alcohol intoxication increased significantly from 0.88% during the period of lockdown to 11.3% post lockdown, when restrictions began to ease. Comparisons of this data were made to the previous year and found that emergency department visits for alcohol intoxication increased from 2.96% to 11.31%.

Itoshima et al. (2021) wanted to explore the population-level changes in areas of alcohol-related liver disease (ALD) and pancreatitis during the COVID-19 pandemic. An interrupted time series (ITS) analysis was conducted and focused on the period of April 2020, which is when the Japanese government declared a state of emergency due to the COVID-19 pandemic. A total of 3,026,389 admissions were found in 257 hospitals, with 10,242 of those between the months of July 2018 and June 2020 for ALD or pancreatitis. Of those 10,242 hospital admissions, 6,371 were for ALD and 3,871 were for alcohol-related pancreatitis. Further, 14% of the ALD cases also had alcohol hepatitis and 72% had liver cirrhosis. These findings highlighted that the pandemic was associated with an increase in admissions to hospital for ALD and pancreatitis. An important note, the admission rate per 1,000 hospital admissions was increased 1.2 times in comparison to the pre-pandemic period. An excess of approximately 214.25 hospital admissions for ALD and pancreatitis were observed due to the COVID-19 pandemic.

Singh et al. (2021) examined changes in online alcohol-related search interests during the lockdown period in India using Google Trends data. The list of alcohol-related queries had four broad themes; alcohol types consumed, how alcohol is accessed, what problems have arisen due to the banning of the sale of alcohol and help-seeking behaviours of those experiencing alcohol-related problems. Three time periods were used to collect the data: pre-lockdown, the initial lockdown and the second lockdown. A significant increase was noted in online search interest for keywords related to the purchasing or procurement of alcohol in the first lockdown period. However, the second lockdown showed no increase in comparison to before the lockdown. Further significant increases were found in the online searches for alcohol withdrawal during the first lockdown and the search terms for benzodiazepines in the second.

Ward et al. (2021) described the impact of the COVID-19 on alcohol-induced blackout tweets. The aim of this research was to describe the prevalence of publicly available tweets in the US that referred to alcohol-induced blackouts both prior to and during the COVID-19 pandemic. The Crimson Hexagon Foresight tool was used to access all English tweets written in the US that made any reference to alcohol-related blackouts in both 2019 and 2020. A greater proportion of all analysed tweets during the pandemic referred to alcohol-related blackouts when compared to the previous (pre-COVID) year. More alcohol-related blackout tweets occurred between March and April 2020 than in 2019. They noted that references to high-risk drinking persisted throughout the COVID-19 pandemic regardless of lockdowns or restrictions on social gathering.

Julien et al. (2020) modelled short- and long-term outcomes of drinking patterns during the pandemic using survey data that focused on changes in drinking behaviour between February and April 2020. Alcohol-related liver disease (ALD) has been surging in the US and due to the COVID-19 pandemic, alcohol consumption was noted to have increased. The aim of this study was to attempt to quantify the ALD mortality in the context of increases to the intake of alcohol. The outcomes were then compared to a modelled scenario of a situation where COVID-19 did not exist. It was observed that the consumption of alcohol increased significantly during the COVID-19 pandemic. It was discussed that this increase has the potential to exacerbate the condition of drinkers living with impaired liver function and cause long-term damage, especially to younger drinkers who have increased their consumption.

Ghimire (2020) compared the 2015 Nepal earthquake disaster to the COVID-19 pandemic. Nepal imposed lockdown restrictions in March 2020, and following this, there was a sudden decrease in the number of people attending the emergency department. Levels of alcohol intoxication and alcohol withdrawal were observed in people during the earthquake disaster and then compared to those during the pandemic. Overall, they found an increase in people presenting with alcohol related problems after the lockdown began. There were more people with alcohol related problems during the pandemic than during the earthquake disaster. Alcohol withdrawal cases comprised of 0.16% of total cases of emergency visits prior to lockdown, after lockdown it increased to 0.9%. It was noted that these increases in withdrawal as opposed to intoxication relate to the unavailability of alcohol during the lockdown.

Longitudinal research

Five of the six papers that conducted longitudinal research on alcohol consumption during the pandemic were from the United States and the other was based in the United Kingdom. Young adults of college age were the most used sample in these papers. All six of the papers focused on changes in alcohol consumption or drinking behaviour both before and after the COVID-19 pandemic emerged. Most of the studies were based on repeat surveys with the same cohort of participants (n=5). Only one study presented the results of repeat interviews with the same sample of people.

Surveys (before and after, same sample)

White et al. (2020) conducted a survey that sought to examine changes in drinking behaviour as a result of the lockdown and subsequent closure of college campuses. The study focused on whether there was any impact or change in consumption due to students moving back home during the lockdown period. This was based on a sample of 312 college students who completed an online survey relating to their alcohol consumption before and after university closures. Two samples of students were compared, namely, those who lived on-campus with their peers' pre-closure and those who moved back home as a result of the pandemic with those who remained living with peers or their parents. Significant decreases were noted in the typical number of drinks per week consumed (from 11.5 to 9.9) and the maximum number of drinks per day (4.9 to 3.3). Significant patterns of change across groups were observed. Students who moved back home showed significant reductions in drinking days per week (3.1

to 2.7), drinks per week (13.9 to 8.5) and maximum drinks in one day (5.4 to 2.9). However, those who remained living on-campus or with their parents were found to have significantly increased their drinking frequency (3.0 to 3.7 days and 2.0 to 3.3 days respectively).

Daly and Robinson (2021) conducted a survey to examine changes in high-risk alcohol consumption before and during the COVID-19 crisis. They based their research on an analysis of data from the 1970 British Cohort Study. A large sample of 3,358 middle-aged adults completed the Alcohol Use Disorders Identification Test (AUDIT) in 2016-18 (when aged 46-48) and again in May 2020 (aged 50). It was found that high-risk drinking increased from 19.4% before to 24.6% during the pandemic. This increase in high-risk drinking was not moderated by sex, marital status, educational attainment, the presence of a chronic illness, or the year the baseline survey was completed. The prevalence of drinking ≥ 4 times per week doubled from 12.5% to 26% from before to during the pandemic. The authors also noted a small increase in the frequency of drinkers being unable to stop drinking on a weekly (1.9% increase) or daily (1.3%) basis.

Graupensperger et al. (2021) conducted a study examining the intra-individual changes from the pre-COVID-19 period to during the pandemic. They focused on young adults' alcohol and cannabis use, how they perceived their peers' usage and motivations for using. A self-report survey was completed by 572 young adults drawn from a longitudinal study on substance use and social role transitions. They reported that on average, young adults increased their alcohol use frequency but decreased the amount consumed per drinking on occasion. They did not find any significant changes in cannabis use during that period. Young adults (on average) perceived that their peers had increased the total amount and frequency of alcohol consumption and further felt that their peers were engaging in heavier cannabis use than before the pandemic. The authors suggest that motives for use during the pandemic may have shifted away from social/peer influences to self-medication motives.

Maggs et al. (2021) explored the levels and predictors of parents who allowed their adolescent children to drink alcohol at home during the lockdown. They based their research on self-reported data collected online before the onset of COVID-19 and during the lockdown period as part of an ongoing longitudinal study with 456 parents who had two adolescent siblings. While no parents allowed adolescent drinking before the pandemic, nearly one in six allowed it during the lockdown. Further, those adolescents who previously drank alcohol and had parents who engaged in either light or heavy drinking were more likely to be permitted to drink.

Papp and Kouros (2021) investigated the daily behaviours and health in college life with a study of 295 young adults aged 18 to 21. This research was based on data from an ongoing study that sampled for recent substance behaviours. The baseline assessments were conducted between September 2017 and 2018 and were compared with an assessment conducted during the pandemic period in March/April 2020. They reported that participants were significantly more likely to use alcohol in their daily life during the pandemic lockdowns than previously.

Interviews (before and after – same sample)

Our searches identified only one study that was based on repeat interviews. Cerezo et al. (2021) explored the ways that 28 sexual minoritized gender expansive women experienced changes in social media use, including alcohol related content after the lockdown and social distancing polices were mandated. The research was based on focus groups conducted the month before and two months into the lockdown period. Respondents reported noticing a change in alcohol content on social media during the lockdown period. Although social drinking was limited during the lockdown period, the respondents reported observing invitations to parties and meet-ups on platforms such as Instagram. Further, respondents observed posts on Snap Chat of their peers partying on beaches and disregarding the social distancing guidelines. It was discussed that alcohol-related content on social media was a reflection of

the stress and isolation young people were experiencing. During the one-month mark of the lockdown, alcohol use became more prevalent as a coping mechanism, and this was regarded as acceptable by respondents.

Grey literature and media reports

Prior to this structured review of the published academic material, an early review of the news media, grey and some limited academic literature was conducted. The detail of these sources and the early (and supportive) narrative analysis can be found in Appendix 3. This initial review helped the research team contextualise challenge and confirm the other primary and secondary data findings. There was an intensification of news reporting on MPA just before and immediately after the March 2nd implementation. However, this rapidly dropped off once the first lockdown grabbed the headlines. In summary, our early review established many of the same messages of the academic research discussed within this and the next chapter. It identified some immediate COVID-19 and MPA reporting, and the establishment of maintained, decreased and increased drinking patterns. Where there were changes in drinking these were attributed more to COVID-19 than MPA. They typically reflected a response to the closure of pubs and restaurants, pressures and opportunities of more time at home, different shopping patterns and changing financial circumstances. In addition, there were messages in the reporting about changes in and (some) difficulties in accessing professional drug/alcohol treatment service support.

4. Impact of MPA on alcohol use and purchasing

Key messages:

The review updates two earlier, more in-depth, reviews that formed part of the 'Switching Study' undertaken by Holloway et al. (2019) and part of the 'baseline' report for this component of the evaluation by Buhociu et al (2021).

Twenty eligible studies were identified and their results were summarised in groups and then collectively. While the conclusions of the updated review are largely positive in finding that alcohol pricing policies can help to reduce alcohol-related harm in certain jurisdictions, there is some evidence to suggest that other policies will be needed to sustain its positive impact. It is also clear that there is still a need for further research on the topic, particularly in a wider range of social and cultural locations including those with large illegal markets.

As part of Welsh Government-funded research on MPA, two reviews of the literature relating to the impact of minimum pricing for alcohol have been published to date. The first focused on studies investigating the potential for substance switching and other unintended consequences of introducing MPA (Holloway et al, 2019)²⁰. The second updated that review to include more recent publications and extended it to include studies that had investigated the impact of MPA more broadly (Buhociu et al, 2021)²¹.

The aim of this chapter is to update the review again to include new material emerging from countries such as Scotland and Australia where the impact of MPA continues to be monitored and evaluated. For clarity, however, we begin with a brief summary of the two original reviews and then move on to present the results of the most recent review.

Summary of original review

Holloway et al. (2019) conducted systematic searches of two bibliographic databases²² to identify publications focusing on the link between alcohol pricing and substance switching²³. The review covered switching in terms of (a) switching from one type of alcohol to another type of alcohol, and (b) switching from alcohol to another type of substance (e.g. illegal drugs and prescription medication). Given the small number of eligible studies identified, the review was extended to include substance switching behaviour more generally rather than specifically as a result of alcohol pricing policies.

The review found only a small amount of tentative evidence suggesting that switching to more harmful substances (either licit or illicit) would occur as a result of increased alcohol prices. Furthermore, most of the evidence gathered was from studies conducted in distinct social and cultural locations, making inferences difficult to apply in the Welsh context. Echoing the calls of other researchers, the original review concluded that more research was needed to strengthen the evidence base and confirm the likelihood and nature of substance switching as

²⁰ The 'Switching Study' included a full literature review on this topic covering studies up to and including 2018. [Holloway et al \(2019\)](#).

²¹ [Buhociu et al. \(2021\)](#)

²² Applied Social Sciences Index of Abstracts (ASSIA) and the Web of Science.

²³ The review formed part of a broader project investigating the possibility of substance switching as a result of introducing a minimum price for alcohol in Wales. The literature review in Holloway et al. (2019) therefore focused on that particular issue.

a result of increased alcohol prices (Vandenberg & Sharma, 2016; Araya & Paraje, 2018; Hobday et al, 2016; Sharma et al, 2017).

Summary of the updated 'second' review

Buhociu et al. (2021) conducted focused searches of one electronic database (Applied Social Sciences Index and Abstracts (ASSIA)) which was known to include studies on alcohol and related interventions, including pricing policies, to identify studies evaluating the impact of minimum pricing policies. In addition, 'hand' searches using Google and Google Scholar were also performed to identify grey literature and studies that may not have been identified via the database search. The criteria for inclusion in the review were purposely narrow and included only studies published in English after 2017 (to avoid overlap with the papers reviewed in Holloway et al. 2019) that had a focus on the impact of alcohol pricing policies or price changes anywhere in the world.

The review identified seven studies that were eligible for inclusion in the review. These studies provided observational and cross-sectional evidence to suggest that the introduction of MUP in Scotland is being implemented as intended, with no detrimental effect on small retailers (Stead et al., 2020) nor on the drinking behaviours or experiences of children and young people (NHS Health Scotland, 2020). Similarly, studies from Australia (Coomber et al., 2020) and Canada (Sherk et al., 2018) present favourable evidence in terms of pricing policies resulting in reductions in alcohol consumption and related harms.

Buhociu et al. (2021) concluded from their review that despite the emerging and generally positive data that is developing, there is still a need to conduct further research on this topic. This was felt to be particularly true for Wales, where there is need to: (1) apply and re-test principle lessons from research conducted in Scotland (O'Donnell et al, 2019; Ford et al, 2020; Stead et al, 2020), and (2) add to the existing body of research on MPA that has been conducted in distinct social and cultural locations (Coomber et al., 2020; Jiang et al., 2020).

Search strategy and selected studies

A full overview of the original methodological approaches used for the two previous literature reviews can be found in Holloway et al (2019) and Buhociu et al (2021). The review conducted for the purposes of this report followed a similar approach whereby relevant pieces of literature were identified through searches of the Applied Social Sciences Index and Abstracts (ASSIA) and through searches using Google Scholar to identify additional literature, including grey literature, that may not have been found via the database search. In addition, searches of Public Health Scotland and NHS Health Scotland's websites were also undertaken in the knowledge that reports on the impact of MUP in Scotland have been emerging in recent months.

In terms of eligibility, studies assessing the impact (or potential impact²⁴) of alcohol pricing policies on drinking and related behaviours that were published in the English language in the last 15 months (i.e. March 2020 to May 2021) were included in the review to avoid any overlap with our previous systematic reviews (Holloway, et al. (2019), Buhociu et al. (2021)).

²⁴ Two studies examined the potential impact of pricing policies were included in the review on the grounds that they provided useful information that is relevant to the evaluation of MPA in Wales.

Results

In this section, an overview of the search method and summaries of the included papers is provided. For clarity, these are presented in groups based on the country from which they originate and on key themes. The section ends with an overview of the literature as a whole and a brief summary of the chapter.

Search methods

Within ASSIA, a Boolean search term using key words (i.e. AB((alcohol AND pric*)²⁵ AND (impact OR eval* OR effect*)) was used to identify studies that had investigated the impact of alcohol pricing policies. The search identified 13 studies of potential relevance. The abstracts of these studies were reviewed and eight publications appeared to match the eligibility criteria (i.e. they included an assessment of the impact of alcohol pricing policies on drinking and related behaviours) and full-text copies were subsequently obtained.

The searches of Google Scholar identified seven further eligible papers that included an assessment of minimum pricing policies. These papers were identified using the same search criteria as was used in the searches of ASSIA.

In the knowledge that findings from the extensive evaluation of MUP in Scotland have now been published, we undertook a thorough trawl of the NHS Health Scotland and Public Health Scotland's websites to identify any new material that had not been identified in the database or Google Scholar searches. After excluding study protocols and plans for evaluation projects that did not include research findings and after excluding studies that we had included in our previous reviews, four new papers were identified.

Two further papers were included in the review including one paper that had only very recently been published (and did not appear in our database searches) and another that was provided to us by a member of our Project Advisory Group resulting in a total sample of 21 eligible papers. Ten of these are based on data from within the UK and eleven from countries outside of the UK. The key features of these papers are presented in a table in Appendix 5. Further, more detailed information about the findings and authors' conclusions are presented in the separate Technical Report. In the paragraphs below, an overview is presented in flowing text of the evidence base that is grouped in terms of country and research approach.

International research

Five of the ten papers based on data from outside of the UK are policy analyses that focus on specific countries (or groups of countries) in order to identify which policy approach had been most effective. Four further papers explored the impact or potential impact of pricing policies on prices and/or consumption of alcohol. Of the two remaining papers, one explored attitudes towards minimum pricing policy and one was a review of the literature.

Policy analyses

Grigoriev and Bobrova (2020) focused on Belarus, which in the 1990s had the highest rate of alcohol consumption in the world. The research was based on a narrative review of historic and contemporary alcohol policies, and analysis of alcohol consumption and mortality trends. The goal was to assess the impact of different alcohol control policies on consumption and production. The paper focuses considerable attention on fruit wines, which following a suspension of the law on 'excises' in 1997, became a very cheap alternative to vodka and

²⁵ Truncated search terms that end with 'special' characters like * or \$ enable search engines to identify words that begin with the included letters. For example, the term 'pric*' would identify the words: price, prices, pricing, priced.

widely consumed by dependent drinkers on the margins of society. Since 2011, the implementation of measures restricting the production and sale of fruit wines has led to significant decreases in total alcohol consumption. However, fruit wine continues to be the most affordable alcoholic drink in Belarus. *The authors conclude that authorities should seek to further reduce consumption through additional measures such as changes in pricing and taxation.*

Gururaj et al. (2021) examined alcohol control policies in India where there are an estimated 160 million alcohol users. They reviewed published research along with anecdotal media reports to assess the burden and pattern of alcohol use and appraise alcohol policies in India. The authors are critical of the control efforts in India, which they claim are piecemeal, lacking in consensus and driven by political and economic factors rather than health concerns. *The authors conclude that pricing policy alone is unlikely to reduce the socio-economic and health impacts caused by alcohol.*

Parna (2020) focused on Estonia and assessed the effects of alcohol policy on various outcomes including consumption and prices. The author noted how an increase in excise duty in Estonia resulted in higher alcohol prices and an increase in cross-border trade with Latvia where alcohol prices were lower. In an attempt to address this problem, Estonia reduced the excise duty, but Latvia responded (within a month) with a decrease in alcohol prices to maintain the trade. *Evidently, as the authors conclude, uncoordinated alcohol policy across neighbouring countries can hinder progress in reducing alcohol-related harm.*

Zasimova and Kolosnitsyna (2020) examined regional variations in alcohol consumption in Russia, which ranks among the most heavily drinking countries of the world and where a significant part of the alcohol market 'hides in the shadows' (p.2). Alcohol policy in Russia is 'somewhat universal' with the same excise taxes and minimum vodka prices set across the country (p.2). The authors investigated variations of recorded and unrecorded²⁶ alcohol consumption per capita (APC) in Russian regions and factors, including prices, that might be connected to these variations. The findings support and extend earlier research on price effects as the prices of vodka were found to be negatively associated with recorded APC and positively associated with unrecorded (i.e. home-produced and illegal alcohol) APC, indicating a potential for substitution between recorded vodka and unrecorded alcohol. *The authors conclude that the price of spirits should be increased and that shadow (illegal) markets be more strictly controlled.*

Neufeld et al. (2020) conducted a narrative review of recent drinking trends and alcohol policy developments in 15 former Soviet Union countries. Eight of these countries were noted to have a minimum retail price for vodka, four of these had additional minimum prices for other beverages, while Armenia was reported to have a universal MUP covering all bottled²⁷ alcoholic drinks. The authors found that the implementation modes of the minimum prices varied greatly across the countries. While it was not possible to evaluate the effect of a single measure such as minimum pricing, observed trends suggest that minimum pricing cannot be effective without complementary measures against unrecorded alcohol. The authors question the generalisability of conclusions drawn from existing studies that MUP would be the most effective option for reducing health inequalities. *They conclude that more research is needed based on data from countries with a substantial unrecorded alcohol supply to evaluate the effectiveness and cost-effectiveness of minimum pricing in a global context.*

Prices and consumption

Trollidal et al. (2021) conducted a time series analysis of data from a survey of students aged 15-16 in Sweden where alcohol consumption among young people has been declining and is

²⁶ Unrecorded alcohol includes informally or home-produced beverages and illicit alcohol.

²⁷ [WHO \(2020\) Alcohol Pricing in the WHO European Region](#)

lower than in most European countries. Their aim was to assess the impact of changes in price on consumption levels and binge drinking. In line with previous research, the authors found that price changes had no major effect on drinking volumes and binge drinking among young people. Furthermore, the findings were the same for the students in general, for boys and girls as well as for all three socio-economic groups studied. *The authors conclude that alcohol prices have not played a significant role in the recent decline in youth drinking in Sweden.*

Taylor et al. (2021) conducted an interrupted time series analysis to examine the effects of MUP on alcohol consumption across the Northern Territory of Australia, where alcohol use and attributable harms are the highest in the country. Overall, per capita alcohol consumption of cask wine (which offers high alcohol content for low cost and is commonly consumed by vulnerable drinkers and disadvantaged communities) decreased by approximately 50% in the year following implementation of MUP, while the consumption of other beverages (e.g. beer) were largely unaffected. Little evidence was found of any transference between beverages targeted and not targeted by MUP (e.g. from cask wine to spirits). However, some media reports noted some drinkers substituting with non-beverage alcohol (e.g. mouthwash and methylated spirits), which led to a shift to place these products 'behind the counter'. *The authors concluded that the MUP policy is a cost-effective way to reduce the consumption of high alcohol content and high-risk products, such as cheap cask wine.*

Chalak et al. (2020) analysed survey data from university students in Lebanon to assess the impact of two excise tax scenarios on overall ethanol intake. The research found that targeted taxation policies resulted in greater reductions in ethanol intake than broader taxation policies. Furthermore, the effect was greater among high-ethanol drinkers than low-ethanol drinkers. *The authors conclude that taxation policy can reduce alcohol consumption and that alcohol consumption patterns should be considered when designing taxation policies.*

O'Brien et al. (2021) conducted a wastewater analysis in the Northern Territory of Australia to assess the impact of minimum unit pricing on population alcohol consumption. Samples were collected before and after MUP had been implemented every two months in capital cities and every 4 months in regional places between August 2016 and February 2020. The results showed a large drop in alcohol consumption immediately after MUP was introduced in the Northern Territory but no significant drop in all other states/territories except for Queensland, which showed a significant but much smaller drop. One year after the introduction of MUP, the drop narrowed and was no longer statistically significant. *The authors conclude that MUP substantially reduced per capita consumption in line with modelling predictions, the experience of effects of MUP in Scotland and early indications of its effects in the Northern Territory. However, the findings also suggested that the impact of MUP was no longer detectable 15 months after its introduction.*

Attitudes

Cook et al. (2020) conducted a survey of people living in Australia who had purchased and consumed alcohol in the past six months. The goal was to assess levels of support for possible changes in price-based policies rather than to assess the actual impact of pricing policy. The survey results showed that price increases were more likely to be supported by older people and women and less likely to be supported by those consuming at harmful levels. Indeed, an inverse relationship between level of support for all price-based policies and drinking patterns was identified. *The authors conclude that policy makers and governments need to better communicate the specific effects of alcohol policies to highlight where the financial impacts may be small and the likely harm-reducing benefits at population level.*

A review

The final paper, by Pokolainen (2020) presents the results of a review of scientific evidence on alcohol policy to investigate the extent to which it supports paternalistic alcohol policy. The

review suggested that stringent policies are unfair and can even be counterproductive because both the health benefits and revenue from alcohol taxes are likely to be reduced when moderate drinkers decrease their intake of alcohol in response to price increases. The review also identified evidence to suggest that alcohol control policies have no or little effectiveness. It is important to note, however, that these bold conclusions are based upon a review of unknown size and quality as the methods and search parameters are not presented within the paper. *The conclusions drawn from this review must therefore be drawn with caution.*

UK-based studies

Turning now to the ten UK-based papers, perhaps unsurprisingly given that MUP has been in operation there since 2018, most of these papers are focused on data collected in Scotland. The majority of papers examined changes in prices or changes in sales and/or consumption of alcohol as a result of minimum pricing policies. However, issues related to harms and attitudes to minimum pricing were also examined.

Prices

Anderson et al. (2021) conducted a controlled interrupted time series analysis of Kantar WorldPanel's household shopping panel to assess the impact of minimum pricing on prices and purchases in Scotland and Wales. The authors found that the immediate impact of MPA in Wales was very similar to that of Scotland. Reductions in purchases of alcohol as a whole were confined to households purchasing the largest amounts and the greatest reductions were for cider and spirits than for other alcoholic beverages. Encouragingly, the short-term impact of MUP in Scotland during 2018 was maintained during the first half of 2020. *The authors conclude that MUP is an effective policy option to reduce off-trade purchases and recommend that its implementation be more widely considered.*

The paper by Xhurxhi (2020) sought to assess the early impact of minimum unit pricing (MUP) on prices and litres sold in Scotland. Drawing on yearly price and sales data (from 2011-2019) the research found that while average prices increased across all beverage categories, litres of alcohol sold decreased significantly post-implementation of MUP. The steepest price increases and the largest sales decreases were for cider. *The main conclusion is that MUP is having a successful early impact in terms of increasing prices and reducing sales and, by inference, consumption of alcohol in Scotland.*

Ferguson et al. (2021) conducted a descriptive analysis of changes in the price distribution of pure alcohol sold per adult in the off-trade in the 12-month period before and after the introduction of MUP. The study found that the distribution of prices post-implementation reflected the 50p per unit price floor and was markedly different to the pre-MUP price and the prices in England and Wales (at that time). After implementation, the proportion of drinks in the 50p to 64.9p per unit price range increased greatly (most significantly in the 50p to 54.9p per unit price band immediately above the price floor) while the proportions above 64.9p per unit increased only slightly. The changes in price distribution for total alcohol were most strongly reflected in the products sold at the lower end prior to MUP (i.e. beer, spirits, cider and perry). *The authors conclude that the findings of the study are consistent with other studies in the MUP evaluation.*

Following the implementation of MPA in Wales in March 2020, research undertaken by Alcohol Change (2021) compared the online prices of popular alcohol brands in major supermarkets in Wales and England. No shops in Wales were found to be selling alcohol below the 50p per unit threshold, although a number of products being priced right on the 50p unit threshold were identified, giving rise to some unusual prices. Fewer multi-buy offers were available post-implementation of MPA and a number were available in England but not Wales. While the

findings are interesting and useful examples are given, the study is limited in that it focuses only on supermarkets (not smaller convenience stores), on online prices, and on 'popular' alcohol brands²⁸. *Perhaps in recognition of these weaknesses, the authors draw no conclusions and make no recommendations.*

Like Alcohol Change (2021), the Alcohol Health Alliance (2020) conducted a survey of alcohol prices. However, in this study the survey was based on site visits and included supermarkets and off-licences across England (in London and the North East), Scotland and Wales to identify the cheapest products. In Wales, prices were surveyed in November 2019 and March 2020 (after implementation of MPA) to see how products had changed. Following the introduction of minimum pricing in Scotland and Wales, the cheapest alcohol was being sold at 50p per unit, which was more than double the price of that in England. Cider was the cheapest available product in England being sold for as little as 19p per unit. Following the introduction of MPA in Wales, some brands were noted to have reformulated their products to sell them in smaller containers and at lower strengths while some had stopped being sold altogether. *The authors end with the recommendation that (1) minimum pricing be introduced in England and (2) that the alcohol duty system is reformed to make it more consistent, proportionate, scaled and updated.*

One final UK-based study relevant for inclusion in this section was shared with us by a member of our Project Advisory Board. The study is useful in that it focuses on cider, which research suggests is the alcohol product most heavily impacted by minimum unit pricing in the UK. The Weston's Cider Report (2021) is based on sales data relating to cider purchases across England, Scotland and Wales. Since MPA was introduced in Wales, the price of cider per litre has risen by more than 50% while the volume of cider purchased has decreased by 16%. The volume losses are attributed to repeat shoppers purchasing less and switching to other categories such as beer. A switch from value tiers into crafted and premium tiers was also noted and a shift from plastic to glass bottles is attributed to shoppers moving away from value propositions and due to the impact of minimum unit pricing. Overall, cider spend was reported to have increased by just over a quarter as the higher price (following the introduction of minimum pricing) balanced out the lost volume. *No clear conclusions are drawn from the report but, on the basis of expert views, the report ends with a 'very optimistic' prediction about increased opportunities for both the on and off trade with one suggesting the possibility of a 'boom year' once COVID-19 restrictions are lifted.*

Sales and consumption

Robinson et al. (2020) conducted a controlled, interrupted time series analysis to assess whether the introduction of MUP in Scotland was associated with a reduction in the total volume of pure alcohol sold off-trade per adult over a 12-month period. The study estimated a net reduction in per-adult off-trade sales as a result of MUP to be between 4 and 5%, which was driven largely by a decrease in off-trade sales of spirits, beer, cider and perry. The analyses controlled for trends in England and Wales (where the legislation did not apply at that time) as well as underlying factors, thereby strengthening the inference that MUP caused these changes. *The authors conclude that MUP has been effective in reducing population consumption levels in Scotland in the one-year period after it was implemented.*

Buykx et al. (2021) analysed data from three waves of cross-sectional structured interview data collected in Scotland and Northern England. The aim was to assess the impact of MUP among people who are alcohol dependent and accessing treatment services. The study found that predicted increases in illegal alcohol and substance switching had not been realised, at

²⁸ In a separate unpublished study, Alcohol Change collected data in person from supermarkets and smaller shops in Wales, focusing on the cheapest drinks. The drinks were price-checked in shops in Cardiff from 1-4 November and from 10-11 March 2020. The biggest changes noted were the disappearance of large (3 litre) bottles of strong cider and the absence of cheap 'savers', 'basics' brands of spirits.

least in the short term. However, some evidence of reducing expenditure on other items and redirecting funds away from essential purchases was reported. More positively, a sharp fall in the proportions of people reporting consumption of very low-cost products was noted in Waves 2 and 3 compared with Wave 1. *The authors conclude that there is little evidence of significant negative consequences following the introduction of MUP in Scotland. However, there was a perceived lack of support both before and after implementation to people accessing alcohol treatment services to help them in adjusting to the policy. Respondents indicated that more information prior to implementation would have been useful.*

Harms

One study was based on a review of alcohol-related death data to assess whether MUP is associated with a reduction in alcohol-specific deaths in Scotland (Alcohol Focus Scotland, 2021)²⁹. The author explains that modelling work undertaken by researchers at the University of Sheffield in 2016 estimated that MUP at the rate of 50p per unit would save 121 deaths each year. Recent statistics show that there were 116 fewer alcohol-specific deaths compared to 2018 and 100 fewer than in 2017, prior to the implementation of MUP. *While the author concludes that these numbers are good news and suggest that modelled estimates might be on the conservative side, he advises caution as the figures represent only a part of the overall picture.*

Attitudes

The study by Ferguson et al. (2020) drew on data from the Scottish Attitudes Survey to assess public attitudes towards MUP in Scotland at three points in time (2013, 2015 and 2019). Attitudes were found to be more favourable than negative in each wave and this pattern was consistent among each social group (based on deprivation quintile, sex and age). The proportion in favour of MUP increased between 2015 and 2019 (i.e. following the introduction of MUP in 2018). Possible explanations for this change were speculated to be: an improvement in understanding about MUP and how it operates; the absence of anticipated negative consequences; the roll out of MUP in other countries; the limited effect on revenue and job losses; and the reduction in alcohol consumption at a population level. *The authors conclude that the public is generally more in favour of MUP than against it and that attitudes have improved over time.*

Overview of the recent research

The findings from the first two reviews were broadly positive in terms of the impact of pricing policies on drinking and related behaviours. In the first review, limited evidence was found to suggest that switching to more harmful substances would occur as a result of minimum unit pricing (Holloway et al. 2019). The second 'updated' review, found that pricing policies generally were associated with reductions in alcohol consumption and related harms. Emerging evidence from Scotland was also identified to suggest that MUP was being implemented as intended and that it was having no detrimental effect on small retailers nor on children and young people (either as drinkers or as relatives of drinkers).

The research included in the current review adds further positive findings to the evidence base. Research emerging from Scotland has been unanimously positive in noting that MUP is having a successful early impact in terms of increasing prices and reducing sales, consumption and alcohol-related harms, including deaths (Robinson, et. al. 2020; Ferguson et al., 2021; Alcohol Focus Scotland, 2021). Furthermore, evidence of negative consequences that were anticipated particularly among dependent drinkers, has not materialised, although some shifting of household budgets from essential supplies to alcohol has been noted (Buykx et al.,

²⁹ [Alcohol Focus Scotland \(2021\)](#).

2021). Given these broadly positive findings, it comes as little surprise to note an increase in public support for MUP in the period since it was introduced (Ferguson et al. 2020).

Early findings in relation to the impact of MPA in Wales are also positive and mirror those from Scotland (Anderson et al., 2021). Indeed, both countries recorded reductions in alcohol purchases, which were greatest for cider and spirits than for other alcoholic beverages. Furthermore, alcohol prices in both Wales and Scotland increased post-implementation of MPA/MUP, suggesting that compliance with the legislation is high (Alcohol Change, 2021; Alcohol Health Alliance, 2020 Weston's Cider Report, 2021). Notably, the changes were greatest in the price band just above the 50p minimum unit price (Ferguson et al. 2021).

While prices have increased in Scotland and Wales, they have remained low in England where minimum pricing has not been introduced. Comparisons of online and store-based prices highlighted a huge price differential between the countries in the period post-implementation of MUP/MPA. In England, alcohol remains available at 'pocket money' prices, with cider being the cheapest and available for as little as 19p per unit (Alcohol Change, 2021; Alcohol Health Alliance, 2020). In Scotland and Wales, almost no alcohol products were found to be available for less than 50p per unit. The conclusions drawn by Parna (2020) in relation to Estonia and neighbouring Latvia are clearly relevant here. Uncoordinated alcohol policy across countries that share borders (e.g. England and Wales, and England and Scotland and Northern Ireland and Republic of Ireland), can hinder progress in reducing alcohol-related harm. The recommendation that England introduce minimum unit pricing is understandable particularly within this context (Alcohol Health Alliance, 2021).

While research from the UK is clearly most relevant to any evaluation of MPA in Wales, lessons can also be learned from other countries where alcohol pricing policies have been implemented. The research included in this review was varied in focus and included studies conducted in a range of other countries including: Belarus, Lebanon, Australia, India, Estonia, Russia, and Sweden. Most of these international studies were based on policy analyses designed to identify examples of best practice. There was a general consensus that increasing prices had (or was likely to) reduce alcohol sales and consumption. However, there are several important points in the international literature that are relevant to any evaluation of MPA in Wales:

- Policy makers and governments need to better communicate the specific effects of alcohol policies prior to implementation (Cook et al., 2020).
- Pricing policy alone is unlikely to reduce the socio-economic and health impacts caused by alcohol (Gururaj et al., 2021).
- While MUP may be effective in the short-term, the international research suggests that other policies will be needed to sustain the reduction (O'Brien et al., 2021)
- Uncoordinated alcohol policy across neighbouring countries can hinder progress in reducing alcohol-related harm (Parna, 2020).
- In some countries, shadow (illegal) markets need to be more strictly controlled given that price increases have been linked to increases in unrecorded alcohol consumption (Zasimova and Kolosnitsyna, 2020).
- Alcohol consumption patterns should be considered when designing pricing policies (Chalak, et al., 2020).
- Alcohol prices have no major effect on drinking volumes and binge drinking among young people (Trolldal et al., 2021).
- Generalising findings about effectiveness across countries needs to be done with caution (Neufeld et al., 2020).
- More research is needed based on data from countries with significant shadow markets and unrecorded alcohol supply (Neufeld et al., 2020).

- While there is little evidence of transference between alcoholic beverages targeted and not targeted by minimum unit pricing, some drinkers were found to substitute alcohol for non-beverage alcohol products (e.g. methylated spirits or mouthwash) (Taylor, et al. 2021).

5. Methods

Key messages:

Interviews were conducted by telephone with 32 drinkers, all but one of whom took part in a baseline interview shortly before the implementation of MPA in March 2020. The interview data were analysed using appropriate software, which included NVivo for coding the qualitative data and SPSS for analysing the quantitative data gathered as part of the interview.

The sample was mixed in terms of sex, age, area of residence and marital status. However, the sample was comprised wholly of people who were White British or White Other and some Local Authority areas (e.g. Cardiff and Wrexham) were more heavily represented than others. Most interviewees scored positively on the quality-of-life measures and where changes had occurred between baseline and follow-up, these were largely in a positive direction. The sample included a mixture of different kinds of drinker including six harmful, 13 hazardous and 13 moderate drinkers. Interestingly, drinking status (as measured by the AUDIT) remained broadly stable between baseline and follow-up for most interviewees. The only changes recorded were for five drinkers who shifted to less harmful patterns of drinking.

This chapter provides an overview of the methods that were used to gather the primary data upon which this report is based. Firstly, the aims and objectives of this additional wave of data collection are outlined and then the research design and strategy that underpin the project as a whole are summarised. Following this, the process through which the data in this wave of the research were collected and analysed is described. The chapter ends with a section describing the characteristics of the interview sample and assessing any changes in drinking patterns in the period since the baseline interview.

Aims and objectives

The aims and objectives of this component of the evaluation are outlined above in the Introduction.

In response to the COVID-19 pandemic and lockdown, which was enforced only weeks after MPA had been implemented, Welsh Government commissioned an additional wave of data collection for this study. While this additional 'wave' of data collection forms part of the assessment of the impact of the legislation on the wider population of drinkers, it has some additional aims and practical objectives that sit outside of those listed in the original specification.

In terms of the broad research objectives, the aim of this additional work was *to investigate the potentially confounding effect of COVID-19 and lockdown on drinking patterns in the period following implementation of MPA*. In short, the goal of including an additional wave of data collection was to help with the process of disentangling the impact of MPA from the impact of COVID-19 (and any other factors) on drinking behaviours in the nine-month period following implementation.

With regard to the practical objectives, it was agreed that *a research report would be produced* and that the findings would feed into the interim and final reports of this aspect of the evaluation and also into the contribution analysis.

Research design and strategy

Details of the research design and strategy underpinning this project are presented in the baseline report (Buhociu et al., 2021). In summary, the evaluation includes a combination of research designs and a mixed strategy approach. In terms of design, the evaluation includes repeat cross-sectional online surveys and a longitudinal interview study.

As noted above, the original plan was for three data collection points (baseline, 18 months and 42 months post-implementation) for both the cross-sectional survey and longitudinal interview study. However, an additional wave was added to the longitudinal interview study³⁰ in response to the COVID-19 pandemic. The aim was to explore changes in drinking patterns and behaviours among our longitudinal study cohort in the nine-month period following implementation.

Consistent with Welsh Government strategies and guidance (Welsh Government, 2014), the research involves close engagement with participants (service users in particular) to ensure that our research plans are appropriate, to check that our data collection tools are user-friendly, to help access relevant respondents and to guide our interpretation of the collected data. To assist with this process, we work closely with the Project Advisory Group (PAG) that was created to support our work investigating the possible unintended consequences of introducing a minimum price for alcohol in Wales (Holloway et al, 2019)³¹. The PAG includes relevant stakeholders, including service users, and meets/communicates at regular intervals to discuss MPA research-related issues (e.g. draft data collection tools, recruitment and preliminary findings).

Methods of data collection

The additional wave of data collection nine-months post-implementation of the MPA legislation involved qualitative interviews with the cohort of drinkers who took part in the baseline interview as part of the longitudinal interview study (plus one replacement interviewee). The cohort had all agreed to be re-contacted for the purposes of the MPA evaluation and were therefore sent an invitation email asking them to participate in an additional wave of interviews. Participation was rewarded with a £10 Argos voucher (Boys et al, 2003)³².

The interviews assessed a range of issues including drinkers' current drinking patterns and awareness of MPA post-implementation as well as the impact of MPA/COVID-19 and other factors on drinking and purchasing patterns, their use of other substances, and on their lives more generally,

The interview schedule was designed for a semi-structured interview based on key themes and interviewer prompts to assist in guiding the conversation (see Appendix 1 and 2). Of particular importance was the need to investigate with interviewees the relative, and separate, impact of MPA and COVID-19 on their drinking patterns and their lives more generally (e.g. relationships, health, housing, and finances).

In practice, the interviews were 'flexible but controlled' (Burgess, 1984) and based on an open rather than rigid structure, which can often regulate, subdue and structure the responses of

³⁰ An additional wave of the cross-sectional survey study was not included due to time and resource constraints.

³¹ Holloway et al. (2019) [Research into the potential for substance switching following the introduction of minimum pricing for alcohol in Wales](#).

³² Argos was chosen as alcohol cannot be purchased from this retailer.

participants (Bryman, 2016). An iterative approach was also adopted, whereby the results of early interviews guided the structure and content of later ones.

Sampling strategy for the longitudinal interview study

The sampling strategy for the longitudinal interview study is described in detail in Buhociu et al. (2021). In summary, the sample of 41 interviewees was recruited using four methods: (1) through the National Survey for Wales (n=21), (2) through third sector organisations providing housing support in the South Wales area (n=10), (3) advertisements within two Welsh universities (n=6), and (4) the online questionnaire survey (n=4).

As noted above, one of the main challenges of conducting a longitudinal cohort study is maintaining contact with the sample over long study periods. Despite the use of incentives to encourage participation, at the point of the first follow-up (nine-months post-implementation), it was not possible to re-interview:

- (a) seven of the interviewees who had been recruited originally through third sector organisations (including six who had moved on to other areas and one who had sadly died), and
- (b) three of the interviewees who had been recruited through the National Survey for Wales (including two who did not respond to our emails or phone calls and one who withdrew from the study for health reasons).

Fortunately, with help from the third sector organisations, it was possible to replace one of the hostel sample members with a new interviewee with similar characteristics. It was not possible, however, to replace members of the NSW sample given the resources (time and money) involved in re-accessing the NSW sample data. The first follow-up interview therefore ended up with a sample of 32 participants.

Procedure

The interviews were conducted nine months post-implementation of MPA in the period November-December 2021. The interviews were conducted in English (no one opted to be interviewed in Welsh) and all were conducted over the telephone to comply with Welsh Government's social distancing rules and USW's restrictions on face-to-face research during the COVID-19 pandemic.

Telephone interviews have a number of advantages: they are less resource intensive than face-to-face interviewing; respondents are less likely to have to cancel at the last minute, and if they do, it is not such a major disruption as it is easily rescheduled; telephone interviews may also enable the respondent to feel more comfortable regarding maintaining confidentiality. Nevertheless, there are also drawbacks, including not being able to see the interviewee and read their body language, which can be useful when exploring sensitive issues. Telephone interviews may also hinder the development of rapport, which is particularly important conducting longitudinal research that requires follow-up interviews.

As mentioned above, the interviews were flexible, yet controlled, conversational in style, and led by an open-ended structure based on questions and 'themes' generated by the evaluation team. The benefit of this approach is that it provides a more insightful account of the interviewee's perceptions and experiences, and allows for unexpected, often 'unusual' data to emerge that may not have appeared through more structured, quantitative techniques.

All interviews were digitally recorded with the interviewees' permission and transcribed expertly and securely by Transcriptum Limited³³. On average, the interviews lasted for 26 minutes, ranging from 15 minutes to 44 minutes. The interviews were a little shorter than the baseline interview for two key reasons. First, being conscious of the impact of the pandemic on interviewees and purposely limiting the interviews to key issues. Second, the interviews were follow-up interviews and did not require discussions about their backgrounds, which had already been collected in the baseline interview.

Data analysis

The transcripts were downloaded from Transcriptum Limited and a database of all anonymized transcripts was set up using the NVivo package for qualitative data analysis, which allows for analysis of interview data involving multiple researchers. A thematic analysis was conducted, and a thematic framework grounded in the data was developed (Corbin and Strauss, 1990).

The data coding and framework were quality assured by two different team members checking each other's coding and/or leading on separate coding. This process helped to ensure that the final extracted themes were not just the personal interpretation of one team member but borne out of the data.

In line with Neale and West's (2014) recommendation, the research team avoided quantifying the qualitative findings except in a small number of cases where it was deemed particularly important to do so. Instead, a form of semi-quantification has been adopted using terms such as 'a few', 'several', 'some', 'many' and 'most' in order to achieve maximum transparency with regard to the numbers of people giving particular responses or types of response (Neale et al, 2015).

Samples

The characteristics of the longitudinal interview study sample are presented in detail in Buhociu et al (2021). Here a brief overview of the characteristics of the sample of 32 drinkers who were interviewed as part of the additional wave of the longitudinal interview study is provided. Where possible changes in behaviours between baseline and the first follow-up have been commented on.

Demographics

The sample of 32 drinkers was evenly split in terms of age with half of the sample aged under 45 and the other half 45 or older (see Table 5.1). The sample was also fairly even split in terms of sex although there were slightly more men than women (17 and 15 respectively). All of the drinkers in this wave of the study were White British or White Other and most (n=22) were married or in a relationship at the time of interview (see Table 5.1). In terms of location, the sample included drinkers living in 11 different Local Authority areas with most resident in Cardiff (n=8), Wrexham (n=5) and Rhondda Cynon Taf (n=5).

³³ [Transcriptum Limited](#).

Table 5.1 Demographic characteristics of interviewees at follow-up interview

	Frequency
Sex	
Male	17
Female	15
Age	
Under 45	16
45 and older	16
Ethnic group [1]	
White British	30
White Other	1
Marital status	
In a relationship	22
Single	10
Total	32

Notes: One missing case.

Quality of life

When asked how well they were managing financially at the time of interview, most of the interviewees indicated that they were managing either quite well (n=11) or very well (n=10), but a small number were not managing well (n=1) or not managing at all well (n=2)³⁴ (see Table 5.2). In terms of changes over time, most interviewees' financial situation had remained the same (n=13) or improved (n=14) in the period since the baseline interview. However, three reported a deterioration including two who shifted from managing quite well to a neutral position and one further interviewee who shifted from a neutral position to not managing well.

Most interviewees reported high levels of satisfaction with their lives and most felt that the things they did in their lives were worthwhile (see Table 5.2). More than three-quarters reported high levels of happiness and most indicated low levels of anxiety. Interestingly, the scores on these quality-of-life measures remained stable or improved between baseline and follow-up for most interviewees. However, a small group of interviewees reported a worsening in: overall life satisfaction (n=7), feeling that the things that they do are worthwhile (n=2), happiness (n=4), and anxiety (n=7) at follow-up.

³⁴ Two interviewees, both hostel residents, did not provide an answer to this question. On the basis of the interview discussion, it was clear that neither were managing at all well financially and had been in this difficult financial position for quite some time.

Table 5.2 Quality-of-life scores among interviewees at baseline and follow-up

	Baseline	Follow-up
Managing very well	4	10
Managing quite well	13	11
Neither well nor not well	7	6
Not managing well	5	2
Not managing at all well	2	1
Satisfied with my life		
Low	3	1
Medium	2	7
High	26	20
Things I do are worthwhile		
Low	4	1
Medium	2	3
High	25	24
Happiness yesterday		
Low	3	1
Medium	6	5
High	22	22
Anxiety yesterday [1]		
Low	15	19
Medium	6	8
High	10	1
Total	31	32

Notes: Some missing cases. [1] While low scores on the other questions are negative, a low score in relation to anxiety is a positive thing.

Drinking patterns

All of the interviewees continued to drink alcohol in the period following the baseline interview. Usefully, the sample varied in terms of the frequency and quantity of alcohol consumed each week (see Table 5.3). Indeed, the sample included 18 drinkers who drank at least twice a week and 14 who drank alcohol no more than once a week. The sample also included people who drank varying quantities of alcohol on typical drinking occasions, including eight who drank at least 10 units and six who drank no more than two units per drinking event.

Table 5.3 Drinking patterns at baseline and follow-up interview

	Baseline	Follow-up
How often do you drink alcohol?		
Monthly or less	4	3
2 to 4 times per month	7	11
2 to 3 times per week	8	4
4 or more times per week	13	14
How many units do you drink on a typical day when you drink alcohol?		
0 to 2 units	7	6
3 to 4 units	6	9
5 to 6 units	6	5
7 to 9 units	6	4
10 or more units	7	8
Total [1]	32	32

Notes: Some missing cases. [1] including the replacement interviewee who had been a dependent drinker for many years and for whom answers to these questions were extrapolated from his interview transcript.

It was possible to calculate AUDIT scores for 28 of the 32 interviewees at follow-up. The other four interviewees were street drinkers (and part of the 'hostel' sample) for whom, given their time constraints, we prioritised asking questions about MPA and COVID-19 rather than administering the AUDIT questions. On the basis of the information provided within their interviews, all four of these drinkers reported consuming large quantities of alcohol on a daily basis. For the purposes of this analysis these four interviewees have been defined as high-risk, harmful drinkers.

The sample was evenly split in terms of the number of moderate (n=13) and hazardous drinkers (n=13). Six of the interviewees had scores (or provided interview evidence) indicating that they were drinking at harmful levels. In terms of changes over time, it was interesting to note that most of the scores remained stable between baseline and follow-up and that the small number of changes (n=5) were all in a positive, less harmful, direction (i.e. changes from harmful to hazardous (n=3) and from hazardous to moderate (n=2)).

Table 5.4 AUDIT scores at baseline and follow-up

	Baseline [1]	Follow-up [2]
Low risk/Moderate	11	13
Increasing risk/Hazardous	12	13
High risk/Harmful	9	6
TOTAL	32	32

Notes: [1] Includes the replacement sample member who had not been interviewed at baseline who had been a heavy, high-risk drinker for many years and who would have been deemed a harmful drinker at baseline. [2] Includes the four interviewees who did not complete the AUDIT at follow-up but for whom it was clear, on the basis of their interview responses, that they were still harmful drinkers.

6. Preparing for the introduction of MPA

Key messages:

In this chapter, two key issues were examined, namely preparation for MPA and awareness of its implementation. As predicted in the baseline report, the majority of interviewees did nothing to prepare for the implementation of MPA. The one interviewee who indicated that he had taken preparatory action did so minimally and simply bought a bottle of whisky before its price increased. The predictions of any stockpiling that were made at baseline, did not materialise. At follow-up, publicity about MPA prior to its implementation was noted by the majority of interviewees. However, some interviewees had not noticed any publicity, which might suggest that the information had not been publicised widely enough.

Preparing for MPA

During the baseline interviews, participants were asked to anticipate whether, in knowledge of the upcoming MPA legislation, they would do anything to prepare for its introduction. Most of the participants indicated that they had no plans to prepare and the small number who did, indicated that this would involve stockpiling cheap supplies of alcohol prior to implementation (Buhociu et al., 2021).

In the follow-up interviews, participants were asked to report whether they did, in fact, do anything to prepare for the implementation of MPA. With one exception, all interviewees (across all types of drinkers) were clear that they had done nothing to prepare for the implementation of the MPA legislation. One interviewee, however, gave a vague answer and speculated that he 'might have' purchased a 'nice' bottle of whisky before its price went up:

I: Did you in fact do anything to prepare for it once you found out that this change is going to happen with the 50p per unit? Did you do anything?

R: I might have bought a bottle of whisky from [supermarket], a nice Scotch, but like one bottle, nothing excessive. And I don't think... it went up by like £2, so it's not very noticeable and it's a decent whisky in its price range anyway. (Interviewee 12, increasing risk)

Except for this singular case, no other participant reported taking any action in preparation for MPA. A variety of explanations for this lack of action was reported. Some interviewees said they did not do any preparations because they were not drinking enough alcohol:

There was no need for me. Like I say, if I was buying a lot then I would have stocked up, but I didn't need to. (Interviewee 01, lower risk)

No, because it didn't really affect me as such, because I don't buy alcohol very often or go out very often, it doesn't really affect me and it still doesn't really, because it's not a regular thing for me. (Interviewee 08, lower risk)

R: Just didn't make a lot of difference really.

I: You didn't think it was going to affect you?

R: No, no. I think if I was buying quantities, then it would have been different. But I wasn't, so... (Interviewee 16, lower risk)

Others said they were not drinking the type of alcoholic beverages that were likely to be affected by MPA:

No, because brandy stayed the same price more or less. Things like [cider brand]and stuff like that, I think that soared up. I don't drink that, never tried it. (Interviewee 11, higher risk)

To be honest, for myself with lager in the cans, it hasn't really changed the price... But to be honest, because I don't drink spirits, or I don't drink flagons of cider, the prices for me haven't changed much. (Interviewee 25, possible dependence)

I think it didn't really impact on us because we were buying the higher value alcohol anyhow, so I don't think it had a great impact. (Interviewee 30, lower risk)

I think we might have had the conversation around that, thinking back. But I think I said to be honest, I don't think it's going to affect me... affect my buying or anything like that of alcohol. Because, I think... mainly because the drinks we're drinking, it didn't really go up that much. (Interviewee 44, increasing risk)

Several participants mentioned a combination of factors, including: 1) not drinking enough, 2) being able to afford an increase in price, and 3) the type of alcohol they drink not being affected by the MPA.

No, I did explain that last time. Because I just buy four bottles of wine a week, and I'm not short of money, I'm not affected by the minimum pricing index. I'm not affected by... I don't buy cheap cider or cheap beer. So, I'm not affected by it at all. (Interviewee 17, higher risk)

No, because I didn't think it would affect me. It's hardly affected me in any way. The only thing... what has made me think more about it is the fact that my income is smaller. The amount we drink between us, my wife and I is not so much as to make it necessary to think about either drinking less or substituting what we're drinking for cheaper alcohol ... What I would say is, if we did find ourselves financially stressed, the first thing I would reduce or stop, is the alcohol. (Interviewee 27, lower risk)

Because... my consumption was never really that great. It never really affected me. I don't even think the price of a bottle of wine really changed to be honest. I know different alcohol became exponentially more expensive, but I really don't think the bottle of wine that I buy has changed to be honest. I could be wrong. (Interviewee 29, increasing risk)

Finally, one participant said that there had not been enough time to make any plans and complained about the lack of publicity for MPA implementation:

I: Did you in fact end up doing anything to prepare for it?

R: No, it was too soon. I talked to people when it came in who didn't even know it was coming in. It was a very covert operation may I say, the way they brought it in. (Interviewee 13, increasing risk)

Awareness of pre-implementation publicity

At baseline, levels of awareness were mixed with interviewees demonstrating far more awareness than survey respondents³⁵. However, across both samples, only a small number of drinkers demonstrated any in-depth understanding of MPA, and most of the descriptions provided were vague. There was a consensus of opinion among interviewees that more needed to be done to raise awareness of the new legislation and to provide clarity over what it would mean in practice and more widespread information about when it was going to be implemented (Buhociu et al., 2021).

At follow-up, the majority of interviewees reported having noticed publicity about the upcoming legislation. However, an important minority reported that they had not.

No, I didn't see anything to be honest. In fact, if you hadn't have mentioned to me, I wouldn't have really noticed. (Interviewee 12, increasing risk)

I: In the period after we spoke, and before minimum pricing was implemented, did you notice any publicity about MPA? So, we did the interview and then there was still a few weeks left until MPA kicked in. Do you remember anything?

R: No, I didn't see anything, no. (Interviewee 17, higher risk)

One interviewee attributed this lack of awareness to the type of newspaper and news programmes they read and watched. For this interviewee, focusing on national UK news meant that information about MPA discussed at a more local level had been missed.

I: Okay. After we spoke MPA came in on the 2nd March, did you notice any publicity about it?

R: I didn't really, no.

I: Nothing in the news? Nothing in shops?

R: Well, we only get a newspaper, one national newspaper, and we listen largely to national news programmes, so we don't get a local paper, and don't listen to or watch local news programmes, so we've missed it if it was on. (Interviewee 21, increasing risk)

Some participants were surprised that they had not noticed more publicity about MPA prior to its implementation. Indeed, several interviewees stressed that they would have expected more robust action from the Welsh Government in terms of raising awareness of what they felt was an important piece of legislation.

It amazes me really, because critically, it seems a good idea and I would have thought it would have been promoted by the Welsh Assembly, at least as something we've done as a policy matter. But I didn't see anything at all before the introduction and I haven't seen anything since. It's very strange really. (Interviewee 19, lower risk)

I thought it was probably quite surprising really, given what it's doing and supposedly the impact that it would have on some people. But yeah, a bit surprised about... I thought there potentially would have been more, but whether that's just me, that I've just completely missed that, but between myself and my wife we probably would have picked it up if there would have been some publicity about it. (Interviewee 33, lower risk)

³⁵ This difference is likely to be a methodological artefact as interviewees were provided with information about MPA prior to their interviews in order to obtain their informed consent for participation.

Another participant reported that even if there was any publicity in the shops, they would have likely not noticed it anyway.

I: Okay, so when you went to the Co-op to buy your cider and vodka, did you notice any signs up saying that the price was going up?

R: No, I don't take any notice of that; I just blank all that off. I don't care about the price, I'm getting it anyway. (Interviewee 23, possible dependence)

One participant reported they did not see any publicity directly, but through a friend who was working with individuals who have problems related to alcohol misuse:

I: Did you notice any publicity about minimum pricing? So, after the interview, did you notice anything on the radio or social media or anywhere?

R: No, honestly, I didn't really hear anything about it.

I: That's interesting.

R: My friend was sharing a few things about it because she works in social work, so she sees a lot of people who have alcohol misuse issues. So, she was posting a lot of stuff about how it affects them, but apart from her posting things, I didn't hear anything about it. (Interviewee 32, increasing risk)

Interestingly, one interviewee who was a dependent 'street' drinker had no awareness of MPA and no appreciation of whether or not it had been implemented. This interviewee was new to the evaluation and had been recruited to replace another dependent drinker who could not be contacted for the second interview. This interviewee's comments are interesting in that they are from someone who had not had MPA on their radar prior to being interviewed.

I: So, have you noticed any publicity about minimum pricing anywhere?

R: No. What's this minimum pricing, then

I: Okay. So, they brought it in in March, and it was designed to try and reduce the harm associated with some of the very strong alcohol, high-volume products. ...

I: Okay, but you've not noticed anything about it.

R: No.

I: So, you haven't seen any posters or signs?

R: Nothing at all. I haven't seen that. (Interviewee 50, possible dependence)

While a minority of interviewees had not noticed any publicity about MPA, the majority had noticed at least some publicity about MPA legislation prior to its implementation in March 2020. Participants mentioned a wide variety of sources for this publicity, including:

- a) Online, both on internet websites for news outlets and newspapers and on social media (Facebook and Twitter):

I: So, before 2nd March when it was implemented, did you notice anything in the press or the media or elsewhere about the MPA being implemented?

R: No, nothing obvious. I think I read one article about it. I just can't remember... I don't remember exactly what they wrote but there was something about minimum price.

I: Was that on the internet?

R: Yes, I think it was the Guardian. (Interviewee 07, increasing risk)

I: In the period after you spoke with [interviewer] and before minimum pricing was implemented, did you notice any publicity about the minimum pricing?

R: I think I'd seen something once on the Facebook for Cambrian News or something along those lines but I've seen hardly anything for it.

I: Do you remember what that advert was for?

R: I think it was some kind of newspaper article about it. Obviously this was a good few months ago and I've forgotten it since, but that's literally the only thing I can remember.

I: Do you remember whether that was before MPA was implemented or after? So, before 2nd March or after?

R: I think it might have been just before it. (Interviewee 14, increasing risk)

I: In the period after we spoke previously, before minimum pricing was implemented, did you notice any publicity about it?

R: I think I might have seen one little advert on social media or something. But if I'm honest, the reason I know about it mostly, is because of these interviews.

I: Okay, but you think you saw something on social media. Can you think back to what form of social media that was?

R: Probably Twitter. (Interviewee 30, lower risk)

b) Television and/or radio either in the form of a news item or an advert raising awareness of the introduction of MPA legislation:

R: I noticed a story about it on the news.

I: So, that was after we spoke?

R: Yes.

I: So, on the news, was it on the news or was it on the internet?

R: It was on the BBC evening news. (Interviewee 03, increasing risk)

I: After we spoke, did you notice any publicity about it?

R: I noticed a little bit on the TV, yeah.

I: Okay, can you remember much about it? I know it was a while ago now.

R: Yeah. No, I think it was just an advert that came on and just said "Minimum price alcohol is now in effect in Wales" and that was about it really, I think. (Interviewee 08, lower risk)

R: I heard something on the news.

I: Can you remember anything about it?

R: No, but I was quite conscious because of what we'd done. I heard it on the news and my ears pricked up and I listened to it.

I: Was that a TV thing or a radio?

R: TV. (Interviewee 26, increasing risk)

Considering we'd spoke about it and obviously highlighted the fact, I saw a lot of it in the news, but I can't remember seeing anything specifically advertised. Obviously, the conversations were to be had on television or radio, and the fact that we'd spoke. I can't remember any adverts or anything like that. (Interviewee 29, increasing risk)

c) Posters placed either in a homeless hostel or in supermarkets:

Obviously in the XXX [homeless hostel], they had a massive thing up about it over the windows. To be honest, that is first how I found out about it coming in. I hadn't heard nothing prior to that. (Interviewee 25, possible dependence)

R: Yeah, there was quite a lot of signage. There was some signs saying... also it was 1st May [sic], maybe that rings a bell that come 1st May [sic] or X date, prices of alcohol will be going up in England [sic] and Wales as well due to the new minimum pricing of alcohol per unit. ... There was quite a lot of signage around in quite a lot of shops, not just [supermarket].

I: Okay, so you noticed it in other places too.

R: Yeah, definitely. (Interviewee 31, lower risk)

Not through media, no. I did notice in the shop there was signage up, explaining the rise in prices for maybe a couple of weeks, but that was about all I saw. Obviously, I was more attuned to taking it in after having involvement in this, but I wouldn't say that it was massively publicised, no. I don't remember seeing any government information launched on any forms of media or anything. (Interviewee 34, increasing risk)

d) Multiple sources including television, online (news channels websites and social media), local newspapers and posters in supermarkets and/or shops selling alcohol:

I: Did you notice any publicity about MPA in that period of time, so after you spoke to us until it kicked in?

R: Yes, I did.

I: And do you remember when this was? Was it very close to this, to the 2nd of March?

R: I couldn't tell you exactly but yeah "this is happening soon"-type publicity.

I: Can I ask you, what did you see, where it was, what did it say?

R: I probably couldn't name you places. I remember seeing it online on things, but I would imagine the Daily Mail or the BBC. I saw it in the local press. I work in the press so I have to pay attention to local press. But it was more online. I don't tend to look at the newspapers to be honest. I remember seeing things on social media from new places or publications that put things like, what do you think? So, encouraging people to comment. So, that stands out more so than actually seeing the coverage, because I probably wouldn't have clicked on to read the story, because I already knew what the story was. (Interviewee 03, increasing risk)

R: I did see some publicity about it yes, in Wales.

I: Do you remember when did you notice this?

R: I think it might have been February 2020. And just before implementation, there was a bit on the internet and BBC News. (Interviewee 05, lower risk)

I: So, can you tell me a bit about what you noticed?

R: It was a news item. There were some television broadcasts as well. I know the Welsh Government produced all these leaflets that were sent to different shops that were selling alcohol and to pubs and clubs as well ... I do buy it in a supermarket occasionally, but I'd never go to a supermarket just to buy alcohol. I didn't really have a great deal of personal experience about what was being displayed in the shops. But if I did go somewhere, I saw the poster which I recognised because I knew where they came from.

I: Did you notice anything in the news or social media or anything?

R: I don't really do social media. But I believe they are still using that as well as part of the campaign. I saw things on the television in terms of news, which I noticed. (Interviewee 027, lower risk)

7. The implementation of MPA

Key messages:

This chapter focused on the post-implementation period and explored if and when interviewees had noticed the introduction of MPA. It also examined what changes had been noticed both in terms of price and availability of alcoholic products.

While some interviewees had noticed signs in shops about MPA, most interviewees were unaware that MPA had been implemented in March 2020. Several explanations for this lack of awareness were given including: their choice of drink being unaffected by MPA, limited trips to shops during lockdown and a lack of interest in prices. Those who were aware varied in terms of the point at which they noticed the change in price. For some this was on the day of implementation but for others it took longer to reach their radar.

When price changes were noticed, these were in respect of a range of alcoholic products including strong ciders and beers, wine, spirits and even some lower alcohol products. Changes were also noted in the price of bulk products (i.e. crates of lagers). Availability was largely unchanged although a few interviewees noticed that some products including strong ciders were no longer available.

Awareness of MPA post-implementation

Generally speaking, most people were unaware that MPA had been implemented on 2nd March 2020. Some interviewees speculated on the reasons for this and a few felt this was because the type or brand of alcohol that they drink was not affected by MPA legislation.

I: Why do you think you didn't notice anything?

R: Because I don't drink the alcohol that was most impacted by the change.

I: So, it wasn't relevant to you?

R: Yes, so I wouldn't know how much it cost before. So, I went down the alcohol aisle in a supermarket for example, I would have no idea that whisky, or that vodka or whatever it is, now cost more, because I don't know what it cost in the first place. (Interviewee 03, increasing risk)

I really didn't notice because I wouldn't necessarily shop for a cheap wine or a cheap vodka. I would normally go for a branded product anyway which wouldn't affect the price so much, because it's already at the minimum pricing anyway. (Interviewee 20, lower risk)

Other interviewees attributed their lack of awareness to purchasing-related reasons, including: because they had not bought alcohol since MPA had been implemented, because within their household they were not responsible for buying alcohol, or because they were not buying alcohol often enough.

I: Now, thinking back to March of this year, can you recall when you first noticed that this minimum pricing had been implemented?

R: No, not really, because I haven't actually... I haven't bought any alcohol in Wales since it came in. (Interviewee 02, lower risk)

I probably didn't buy alcohol around that time. Probably didn't realise that it was coming in on that day. (Interviewee 30, lower risk)

I don't think we did, really, to be honest. No, I don't think I'd have noticed given how little and infrequently we do buy it. I probably didn't notice, to be honest. (Interviewee 33, lower risk)

A variety of price-related issues for the lack of awareness were also mentioned, including because: (a) they generally do not notice differences in price, (b) they are not interested in the price when they are buying alcohol, or (c) they had not had the chance to look more closely at prices of drinks, since they did not go physically to supermarkets anymore as a result of the COVID-19 pandemic and lockdown.

R: I didn't really notice.

I: Why do you think you haven't noticed?

I buy the same thing every time and there's usually offers on, so I don't notice when it differs from the certain price. (Interviewee 04, increasing risk)

Not really. When I buy drinks, I'm not too bothered about the pricing of it. So, if I see a brand or something I like to drink, I will buy it regardless of price and obviously since... and if implementation's been made, I haven't really noticed the difference, because I've not been one to just go with what's cheapest or better value. I've just gone with the ones I like. (Interviewee 14, increasing risk)

I think it was probably because we weren't in supermarkets. When I do go to supermarkets, I do look at what is on offer and so that's probably... the reason is that we weren't going to supermarkets, and as we don't drink vast amounts, I'm not browsing online of what's going. But obviously if I go to a supermarket, I will look at the booze section as it were and see what there is. (Interviewee 05, lower risk)

While most were unaware that MPA had been implemented, some interviewees had noticed and reported that they had seen the difference in price while shopping. Others had seen MPA advertised on signs in smaller shops and larger supermarkets:

I: Can you recall when you first noticed that it had been implemented?

R: Yes, well, I went shopping and I just noticed that it was more expensive I think. I think that was it. (Interviewee 44, increasing risk)

I: So you noticed this where? In the supermarket or online?

R: In [supermarket]. As I say I do all my shopping in [supermarket]. It's the local shop close to me. It's a supermarket, but it's just convenient for me because of the parking and what have you, so yeah as soon as I went in there, you see it. (Interviewee 13, increasing risk)

Some participants remembered that they first noticed the price change in ciders, with a few mentioning that the baseline interview prompted them to actively look for the change in price in March 2020:

I: Now, thinking back to March of this year, can you recall when you first noticed that MPA had been implemented, or if you have noticed again?

R: Yes, cider has gone a little bit more expensive.

I: So, you noticed that in the local shop?

R: Like I say, I probably wouldn't have noticed unless you guys hadn't phoned me. Obviously in the corner shop, the big bottles of cider have become more expensive, not that I would be buying them anyway unless I was making ham. But yes, I guess I have... I have bought cider actually to poach the ham in and that's been the only time I've been like "oh, it's now a few quid more expensive than it was".

I: Okay, so you did notice that?

R: Yes, I think so, but barely. (Interviewee 12, increasing risk)

I do remember going in to Spar and my friend has been sober eight years. He looked at this [cider brand] and went, "that used to be £3, it is now £11". So, I tried to explain to him that they were now measuring by the unit and it was 50p whatever you drunk. (Interviewee 11, higher risk)

R: Yes. Some of the drinks were... the ones that used to be really cheap I noticed a price difference there. Now they are noticeably more expensive.

I: Do you remember what types of drinks are you referring to? What are the ones you saw this increase in?

R: I think it was like... it wasn't like sparkling... no, I think it was... I think it might have been like a pack of [cider brand] or something, I can't remember. But I noticed the difference.

I: Was that in the supermarket that you noticed it?

R: Yes, [Supermarket name]. (Interviewee 07, increasing risk)

Others reported noticing changes in the price of other types of alcohol, such as wine, beer or whisky:

Yeah. I couldn't give you the date, but it would have been done after it had come in because I remember having a conversation with someone by the wines in [supermarket] about it. It must have not long changed at that point. The price had gone up, basically, and an older gentleman was going on... was confused as to why the price had changed. (Interviewee 34, increasing risk)

R: Yes, I probably would say I noticed, because the supermarkets tend to have offers on, on their bulk boxes of beer, where it's almost... it's not doubled but gone up by 50% almost.

I: So, that's the big crates?

R: Yes. (Interviewee 01, lower risk)

I think that whisky in [supermarket] went up a pound or two. But not really noticeable for me. (Interviewee 12, increasing risk)

One participant who was working in a supermarket recalled being the person who put the signs up regarding the MPA implementation.

Yeah, so I was actually the person that put the signage up around the shop, they gave me a plan that had come down from obviously Head Office and basically said put these signs here and there was quite a lot of signs up around the shop. I think I put up about ten posters which like hang off the end of the alcohol section and then a massive one on the front door of the shop as soon as you walked in. (Interviewee 31, lower risk)

Interviewees' responses about the moment when they noticed the implementation of MPA legislation varied significantly. While some reported they saw the change straight away, others did so a few weeks later, and others reported they noticed the MPA implementation a few months later.

I: Now thinking back to March of this year, can you recall when you first noticed that MPA had been implemented, so on the shelves of the supermarkets?

R: Yes, the date it came in.

I: So you've seen it straightaway?

R: Yes, everything went up overnight, didn't it? (Interviewee 13, increasing risk)

I: Can I ask you how soon after implementation did you notice this?

R: A couple of weeks. (Interviewee 01, lower risk)

I: Do you remember how soon after implementation did you see this?

R: Quite soon. It happened in March and then I think it was March, April, end of March. (Interviewee 07, increasing risk)

I: When did you notice that?

R: That would have been probably about May, June, something like that. I can't remember now. (Interviewee 16, lower risk)

Finally, a few interviewees reported that they noticed the change in price but could not remember exactly when it had happened.

I: So, can you recall when you first noticed it had been implemented? So, when you went into a shop?

R: I knew it was coming because obviously I had spoke to you. I had read about it anyway before you contacted me. I knew it was coming, but I can't remember a specific date I noticed any difference. I've noticed things since mind. (Interviewee 09, increasing risk)

I: Do you remember how soon after 2nd March was this? Was it...

R: God no. (Interviewee 11, higher risk)

I: And can you recall how soon after the 2nd March you saw those notices? Can you recall?

R: Not really. (Interviewee 21, increasing risk)

Awareness of specific price changes

Interviewees were asked to remember and describe any specific changes in prices of alcohol that they had noticed after MPA legislation was implemented. Participants reported a variety of price changes for different types of alcohol. For instance, several participants observed an increase in the price of strong cider, strong lager and/or wine.

I: So, do you remember when minimum pricing came in back in March, did you notice it coming in?

R: Yeah, I was in detox and then I come out and I went in on the Friday and it was like the Monday it started.

I: Okay. What did you notice? What did you see going on?

R: I used to drink, buying [Brand] cider for about four quid, now it was like £11 and £12. (Interviewee 39, possible dependence)

R: I noticed they put that [cider brand] up to £10 for three litres, or £11 for three litres. That's all ... Even the white... What's that cider called? [Brand]. [Brand of cider]. That's it. That made me laugh the other day. Someone put on Facebook that it was £10 or £11-odd to a bottle of it, like.

I: Why is that funny?

R: Because that drink was made for people who couldn't afford to drink properly to be able to drink. It's not funny, no, but it's... That's how I see it. (Interviewee 50, possible dependence)

A few interviewees reported noticing an increase in the price of spirits (e.g. vodka, whisky).

I notice a bottle of vodka, not that I drink vodka, but as you go past you notice it's gone up from... one they used to sell at £9.99 to £13 something now with the minimum price I see on vodka. So all luxury brands didn't really go up like [vodka brand] and stuff like that because they always were quite high and if people wanted to drink them, they were still there, but they had to pay extra for them, so people did drink cheaper vodka et cetera. Well they were still drinking vodka, now all they've done is put the price up. And asking them all to do the same. (Interviewee 13, increasing risk)

I: Okay, and the vodka's got more expensive, but the cider you said has stayed the same?

R: Yes, in Co-op yes. It hasn't gone up in Co-op, no.

I: The cider... but the vodka has, yes?

R: Yes.

I: Okay, has it gone up a lot or just a little bit?

R: Six quid more. (Interviewee 23, possible dependence)

R: I just noticed because I work for [name], the supermarket, I did notice the price of spirits going up and stuff.

I: Okay.

R: Instead of it being 13.33 or something, it was like £16, it was like an exact number.

I: Oh, that's interesting.

R: That was the only difference I noticed really.

I: Okay, so you noticed it going up by a few pounds. Was it any drinks in particular? You mentioned spirits but was it anything in particular?

R: I think it was whisky I noticed.

I: Whisky, okay. Any particular brand you noticed?

R: Like the [supermarket's] own brand whisky, so it's not [branded whisky] but its equivalent. (Interviewee 31, lower risk)

A couple of interviewees reported they noticed a change in the price of bulk products (e.g. crates of lager).

Funnily enough, I was on my way to shopping when you rang the first time and I knew you were going to ring me back and I glanced at the price of crates of lager now, and they're almost £16, when before they were more like £10. (Interviewee 01, lower risk)

R: Yeah, just a little bit because I know it's like the value lager and stuff, like £2.55 for four. Obviously, I know that's gone up. I remember there was a big bottle of cider in [supermarket], because I used to work in a [supermarket name], you could buy it for £2 and now it went up to £5.

I: Yeah.

R: So that was quite a massive jump. Obviously, that was aimed at alcoholics; they're used to buying every day. So, I did notice that. (Interviewee 31, lower risk)

Availability of products

Participants were also asked if they had noticed any changes in the availability of alcoholic drinks following the implementation of MPA. A few interviewees reported noticing that some products (strong ciders in particular) were no longer available. One participant mentioned that bulk sales of cider were also harder to get hold of in the aftermath of MPA legislation.

R: Only that I used to work... well, I still do a shift in the local shop, and obviously I've noticed there that the cheap ciders, bottled ciders, they've gone up massively.

I: But that shop still sells them in the same bottle?

R: No, absolutely stopped selling them. ...

I: That was the big two litres, or two and a half, or three litres?

R: That's right.

I: So, they didn't start selling smaller size bottles, they are just gone altogether?

R: Yes. (Interviewee 01, lower risk)

I: Have you noticed any products being no longer available?

R: Yes, you don't see these strong ciders so much and I notice they're not advertised online now.

I: Did you notice that everywhere or just in one specific location?

R: Maybe everywhere, not so advertised, no. Certainly I would say the nasty white ciders; they don't seem to be quite as high profile in shops, so that must be good.

I: So, that would be just for the white ciders, you're saying?

R: Strong ciders. (Interviewee 05, lower risk)

R: I believe when this all started there was a problem with the ciders, but then there was a... when they come in you ... get them so...

I: Okay, so when it first came in, some of the ciders were difficult to get hold of.

R: Yeah, because we have a pallet which is about 70 ciders³⁶, 70 bottles and so for a couple of weeks you couldn't get any. And then I'm guessing it was just trying to get everything new, but that could have been changing the packaging maybe or something. (Interviewee 31, lower risk)

However, the overwhelming majority of interviewees had not noticed any alcoholic products missing after MPA legislation had been implemented and most of them were categorical about that. However, a few accepted that this was potentially because they were not looking for, or interested in, products that might have been affected by minimum pricing.

I: Okay. Have you noticed any products not being available anymore on the shelves or online? Alcohol products I mean?

R: No. (Interviewee 04, increasing risk)

I: Did you notice any products no longer being available since then?

R: No, I haven't noticed. (Interviewee 07, increasing risk)

I: Noticed anything not being available?

R: No, I can't say I have because it depends what I'm looking for. No, I can't say that I've noticed anything or it should've been there and it's not or anything like that. (Interviewee 08, lower risk)

³⁶ This interviewee works for a supermarket and was describing what he had noticed in the shop where he works.

8. Changes in drinking patterns

Key messages:

This chapter drew on the interview data to examine changes in drinking patterns and behaviours post implementation of MPA. Given the potential confounding effect of COVID-19 and lockdown on drinking patterns, interviewees were asked to reflect on the impact of MPA as well as the impact of COVID-19 and the associated lockdown on their drinking patterns.

Most interviewees reported changes in their drinking in the period since the baseline interview and this included both drinkers who increased their consumption and those who decreased the amount of alcohol consumed. In all but one case, the change in drinking pattern was attributed to COVID-19 rather than to MPA. The only MPA-related change was in relation to a harmful drinker who switched away from cider to vodka as the prices of the two became closer following the implementation of MPA.

The main COVID-related reason for a decrease in alcohol consumption was linked to the lack of socialising during lockdown while the main explanations for increases were due to loneliness, boredom and anxiety. Some interviewees described participating in a greater number of drinking sessions, which resulted in an overall increase in the amount of alcohol consumed. Another commented that the restrictions on shop opening times had resulted in him consuming larger quantities of alcohol more rapidly than previously. Overall, the mixed findings reported in this chapter support those of other researchers exploring the impact of COVID-19 on drinking patterns in the UK (see Chapter 3).

MPA-related changes

In terms of the impact of MPA on drinking behaviours, interviewees (including drinkers of all types) overwhelmingly reported that it had not caused any changes either in the quantity or the type of alcohol they consumed. The only exception was one harmful drinker who reported switching from strong cider to vodka and sometimes to wine:

I: Okay, so has your drinking changed since we spoke in March? Has your pattern of drinking changed? Do you drink a different kind of drink now?

R: Yeah, I just think cider's about, what it is like not good... like it's not... 7.5%, I could get a bottle of this for £4. Now it's not that good a deal. I can get a bottle of vodka for like £8, so half a bottle.

I: Okay, so you've switched from cider to vodka.

R: And wine when I've got no money because I go stealing it.

I: Okay. Would you say that it's minimum pricing that has caused you to change the drinking?

R: Yeah, before then it was ... because it was decent strength and lasts quite a while and it's four quid. (Interviewee 39, possible dependence)

The potential for switching from cider to spirits, as they become closer in price as a result of MPA, was reported in previous studies where drinkers were asked to predict what might happen following the introduction of MPA (Holloway et al. 2019 and Buhociu et al. 2021). The findings reported at this first follow-up may lend support to this prediction although the extent to which this has occurred is not as widespread as anticipated.

Most participants reported that MPA had not had any impact on their drinking patterns. Below are a few examples of quotations from interviewees who indicated that neither the quantity nor the type of alcohol they consumed had changed as a result of the implementation of minimum pricing.

I: Okay. So, since we spoke at the beginning of the year, has your drinking pattern changed at all? So, this is over the last nine months, I guess. So, has anything changed?

*R: No, I don't think so, no. It's pretty much stayed the same, really.
(Interviewee 33, lower risk)*

I: Okay, so has the price going up a little bit changed your drinking pattern at all?

R: To be honest, I wouldn't say it has. (Interviewee 25, possible dependence)

I: So, has your drinking changed at all since you spoke to [interviewer]?

R: No, probably exactly the same. I have my alcohol for the week and that's it, that's whether it's gone up or down. (Interviewee 31, lower risk)

I: Since you spoke to [interviewer] earlier this year, has your drinking pattern changed in any way?

R: No.

I: So, nothing in terms of quantities, types of alcohol, brands, nothing?

R: No. (Interviewee 20, lower risk)

COVID-19- related changes

As noted above, many participants had changed their drinking behaviour in the period since their baseline interview. However, instead of MPA legislation being the cause, they cited COVID-19 and the related lockdown restrictions as the primary cause of these changes. The changes described by interviewees were in terms of the quantity of alcohol as well as the location where it was consumed and purchased.

Quantity

Many participants reported that due to the COVID-19 pandemic, the quantity of alcohol consumed had changed. However, the direction of change varied among interviewees. For instance, in line with other research findings (see Chapter 3), some interviewees reported that they drank less now than previously, and they attributed this to the lack of socialising during the lockdown imposed by the Government.

I: Since you spoke to [interviewer] earlier this year, has your drinking pattern changed in any way, in terms of quantities of alcohol, brands, drinking out?

R: I've definitely drunk less, especially because of lockdown. As a student, I'm not around my social group. So, I don't drink as much, and also go to less places to drink because we're unable to.

I: So, these changes started after the lockdown kicked in and did it have anything to do with MPA or was it just COVID and lockdown?

R: Yes, purely COVID, nothing to do with MPA. (Interviewee 04, increasing risk)

I: So, you changed where you were drinking because you couldn't go to the club, but did you change the amount that you were drinking?

R: Less ... decreased ...

I: Did your change in drinking have anything to do with minimum pricing?

R: No.

I: And were there any other factors at play?

R: No.

I: Just lockdown?

R: Yes. (Interviewee 26, increasing risk)

I think if it's changed at all, it would definitely be less, but I don't think... because I don't think I was drinking a lot around then anyway. But I would say, if it was any, it would definitely have gone down, because... not that I drank a lot anyway, but because there's been... because we haven't been able to see people, because of lockdown and stuff, and nothing has been going on, I haven't had that need to drink. So, I think that's definitely reduced it but still not by a lot, because I didn't drink loads in the first place. (Interviewee 46, lower risk)

While some reported decreases, other interviewees reported increases in the quantity of alcohol consumed since baseline and they attributed this increase to the COVID-19 pandemic. In line with other research (see Chapter 3), these interviewees explained that they started to drink more because of reasons such as having too much time on their hands, loneliness and anxiety.

R: I probably do slightly drink more than what I did prior to lockdown.

I: Would that be only in terms of quantities, or did you also change the types of alcohol or the brands?

R: The quantities, not the type.

I: Can you tell me when and why that happened?

R: Due to the fact of me losing a lot of hours where I worked. I had too much time on my hands almost.

I: So, would that be related to COVID-19 and the lockdown?

R: Yes. (Interviewee 01, lower risk)

I: Okay, has COVID 19 had an impact on your drinking? Has lockdown had an impact?

R: To be honest, when it first started and I moved into my property, I was drinking more and more and more.

I: Why were you doing that?

R: To be honest, I was lonely. When I was down the XXXX [homeless hostel], I had people who lived with me that I used to have a drink with, I used to talk to, I used to feed them. (Interviewee 25, possible dependence)

I: So, do you think you're drinking more alcohol now than you were? So now drinking vodka, do you think overall you're drinking more or it's about the same or what do you think?

R: I think the vodka probably units wise, probably more.

I: Okay. So, with the pandemic and lockdown and everything, did that impact on your drinking at all?

R: The lockdown did you say?

I: Yeah, the lockdown and the pandemic, has that altered your drinking at all?

R: I suppose yeah, without really doing anything just sort of staying in drinking in my room. (Interviewee 39, possible dependence)

A small number of interviewees reported that their increase in alcohol consumption was the result of a greater frequency of drinking sessions. These participants attributed this increase to a combination of factors including: a reduction in socialising, depression (i.e. 'What's the point?' attitude), monotony, relaxation, and the fact that it was cheaper to drink in the house than out in a pub, bar or restaurant.

R: Well, we don't go out anymore like we used to. We used to go out a couple of times a week and maybe a Sunday we would go out. Not fear factor, but what's the point, when the pandemic first kicked off... we thought what's the point of having a couple of nights a week off, I may not be here in a couple of months' time. As it's grown... they've had a change... I can't continue drinking every single night. Something is going to go wrong, isn't it? And to be honest, it's cheaper drinking in the house, isn't it, because the money I would be spending socialising, it's... in comparison to buying a bottle of wine to drink in the house, for what you would spend if you were out socialising... it's a hell of a difference in price, isn't it?...

I: And is it true to say that any of those changes were related to minimum pricing at all?

R: No. (Interviewee 09, increasing risk)

R: Just the frequency. We don't ever have more than three glasses, and small glasses as well. So, just very occasionally, for special occasions we'll have more. On the weekends, we just have a bottle between us then, so that was unusual to do that.

I: So, during lockdown, you went from drinking a couple of glasses of wine, say every other night to every night?

R: I'd say we used to... before we didn't drink on Wednesday's or Friday's and I think... sometimes we do now drink on Wednesday's and Friday's. So, it's gone from four, five days a week to six or seven.

I: I know you mentioned it's to do with lockdown and COVID, but what do you think is going on there?

R: I suppose it's a combination of factors that... because we don't have to get up early in the morning. My husband doesn't have to commute at the moment and things like that, so we go to bed a bit later. To have a nice glass of wine while you watch something on telly sort of thing, there's more opportunities to do that and not worry about work the next day. Not that... it's two small glasses of wine, so it's not like you'd ever get hungover or anything. But I suppose it just feels a bit more relaxed. Also, because you can't go out, I suppose... it sounds really pathetic, but it's quite monotonous at the moment. (Interviewee 30, lower risk)

One dependent drinker reported that he/she was now drinking more quickly and in greater quantities because, due to the COVID-19 restrictions, the shops selling alcohol were closing earlier than in the past.

I: Okay, so the pandemic and lockdown, so that affected when you...?

R: The lockdown's making me drink more.

I: Can you explain why?

R: Since we've been in lockdown I've no time.... Not being allowed out, that's not enough time. All the shops shut at ten, so you've got to get all your alcohol by ten o'clock at night, half past nine at the latest.

I: So you have to buy all your alcohol earlier now. Does that mean you're drinking it faster, or...?

R: I'm drinking more, yes.

I: Okay.

R: So with COVID it's making me drink more than usual. (Interviewee 23, possible dependence)

Several participants reported that their drinking patterns had fluctuated in the period since the baseline interview. For most, the fluctuation was in terms of an increase in quantity of alcohol consumed followed by a decrease.

R: That is probably back to what I used to drink. I definitely got a point during April... no, maybe not at soon as April but definitely May and June, I was drinking a lot more than maybe I normally would. More than that anyway. Again, not drinking until I was drunk a lot, I was drinking... noticing the fact that I was starting drinking at, maybe, five o'clock, having a couple of cans then with making tea, which persisted for a while, to be honest, until I checked it.

I: Okay, so that would have been an additional couple of cans would it, starting at five.

R: Yeah, yeah. I'd have first couple of cans and maybe a couple of cans later. Thinking back, actually, there was probably instances where I was drinking to get drunk with my partner in the evenings as well in the week during lockdown ...

I: As a result of that or lockdown or whatever, were you drinking more?

R: Yes, yeah, definitely. During the months of May, June, and probably a bit of July until I started going back to work and everything else, yeah, I was definitely drinking more. (Interviewee 34, increasing risk)

R: Well, I would... due to the lockdown and everything, having my accident... but it was the lockdown ... we started drinking a bit more in the week, so I would say we had gone up now thinking about it, to over four times a week ... So, it did. In the lockdown, it got... I was drinking too much. I'd say four or more times a week, at least twice in the week I would have two double gin and tonics I would say. But since the lockdown is easing and I've been going out and everything, I'm dry at the moment. Like I said, I've gone on a bit of a cleanse shall we say. ... Yes, and then when we got freedom again and the kids were going back to school and everything, there was things to do again. (Interviewee 44, increasing risk)

I: So, had your drinking picked up? Had you been drinking more than during lockdown?

R: Yes, because it's easy, isn't it?

I: So, had it gone up... had you started drinking a lot more than you had done before lockdown?

R: I wouldn't say a lot more but yes.

I: We're really interested in this. So, if you could just... how much more were you drinking at that time?

R: I used to have a bottle of Scotch on the go. We don't have that anymore. That's not on the menu. Not that I drink a bottle of Scotch a night or anything. I did like to have a tot before I went to bed.

I: Okay, so when we went in to lockdown then, you were drinking a bottle of wine most nights, is that right, and a little bit of whisky?

R: Yes.

I: And would you put that... was that an increase to what you were doing before lockdown?

R: Oh yes, yes. (Interviewee 16, lower risk)

Reasons for the initial increase in the quantity consumed by these participants were varied and included a combination of using alcohol as a coping mechanism, self-medication, boredom, inability to go out and do anything else, and a regression into teenage behaviour (due to reconnecting with friends from that period of life).

I: Why do you think that was happening?

R: I don't know. I think there was maybe an element of teenage regression because we were in a fairly surreal situation. Maybe there was a mechanism to help coping with the level of stresses of it all. Maybe a level of boredom and not being able to do much else. (Interviewee 34, increasing risk)

R: When COVID came in, I couldn't do anything, I couldn't come out and obviously I had the accident. Taking the accident out of it, my husband also, he didn't have any work, and normally he works... he can work up to ten hours a day and because he didn't have any work, we just... we just were doom and gloom everywhere, and I wasn't able to see my mother and so we'd have a few drinks of an evening just to take the edge off. I would say that would literally be maybe only two doubles, just to take the edge off of things.

I: Okay, so you added a few more days where you'd have a few drinks and you explained that in terms of taking the edge off. Is that taking the edge off the stress?

R: Yes, just everything really. It got really depressing and stuff for a while there. My kids, not being able to get out for an hours exercise and everything. So, yes. It was just... just to smile a bit to be fair. Everyone was just worried... stressed and worried. So, when I say to take the edge off, it was just to relax a bit more and I know it doesn't make you sleep better, but I was finding it very hard to get to sleep at times, and having a few drinks, I would go off easier. So, it was like that. It was just to calm myself down really, to have a bit of calm. (Interviewee 44, increasing risk)

I: So, why were you drinking more during lockdown?

R: Just because we're just sitting there. We weren't going out at all.

I: Okay, so what was it? A boredom thing or what?

R: Yes, more or less. You're sitting there watching telly, I always find it a bit... it does your brain in, doesn't it? There's nothing... I find it difficult to watch something on telly and feel really entertained. (Interviewee 16, lower risk)

Motivations for the subsequent decrease in the quantity of alcohol consumed by these participants included: the easing of restrictions during the summer, feeling more positive, having more things to do and becoming conscious of the increase in the quantity of alcohol consumed.

I: Okay, and then starting to come back to a more regular pattern?

R: Yes, and then when we got freedom again and the kids were going back to school and everything, there was things to do again. There was uniform to wash and lunches to make and by then I was getting a bit better on my feet and stuff. So, I was feeling more positive within myself. (Interviewee 44, increasing risk)

I: Okay, can you talk me through a bit about how much less and why?

R: Well, it's just the fact that I was sitting around and having a glass of red wine doing prepping with the meal and then afterwards. Then I thought... I don't know, "This doesn't seem right. I should cut down." So, now I just have two glasses. (Interviewee 16, lower risk)

Location

The most cited COVID-19-related changes in drinking behaviour among participants were those related to the location where they consumed alcohol. Whereas before the pandemic they used to drink in pubs, bars, restaurants and/or clubs, most interviewees said that because of the restrictions imposed by the Government in March 2020, most of their drinking was now taking place inside their home.

I: And in terms of the location, did that change since March?

R: Yes. We did drink at home previously as well, but we'd also go to the pub or go out, so it has just been at home because we can't go to the pub any more. (Interviewee 03, increasing risk)

I: Since March 2020, have you changed where and how you drink alcohol?

R: Yes, so I don't go to pubs as much, and bars, and definitely not clubs, because they're shut.

I: And that's because of the COVID-19 restrictions?

R: Yes. (Interviewee 04, increasing risk)

I: Since March have you changed where and how you purchase alcohol?

R: In that I don't go to the pub so much. Well hardly at all. Whereas before I'd perhaps go out... I go gallivanting down in west Wales, so I'd be out perhaps Friday and Saturday night and maybe Sunday morning. Now you don't do those things. (Interviewee 13, increasing risk)

As a house, we'd have a few drinks on a Friday night to socialise. Obviously, we couldn't go outside to the club, so we'd do something in the house together. So, I think it [quantity of alcohol] probably stayed roughly the same levels. Yes, we just wouldn't go out for it. (Interviewee 14, increasing risk)

Because the interviews took place in the summer of 2020 (when some restrictions were temporarily lifted), a few interviewees reported that they still consumed alcohol outside their home. However, a few said that they had reduced the visits to pubs or restaurants even when these were open, because they did not feel comfortable there anymore.

I: So, first of all, you mentioned before that you used to go out drinking... I recall from your first interview; you'd go out maybe on a weekend and have quite a few?

R: Yes, most Saturdays, yes.

I: Yes, so you'd go out on the Saturday, but presumably, you're not doing that now, or are you?

R: No, because of the COVID restrictions, yes, and because of my personal wish not to get it. Even when it's been possible to go... I suppose since March; I have gone to the pub when it was possible to go, perhaps about three times.

I: So, the COVID effect is... and that's about you not wanting to go out and put yourself at risk, is that what you said earlier?

R: Yes, that's right. (Interviewee 27, lower risk)

I: Did you used to drink out before?

R: Yes, we would go to the pub and we would have a bar meal and we did manage this year to get two weeks holiday out of the country and we were able to have a drink there. So, we did go out. But we haven't been out much at all in the last six, seven, eight months.

I: And that's because of COVID restrictions?

R: Yes.

I: So, nothing to do with MPA?

R: No.

I: And when did these changes occur in terms of your starting more at home rather than going out?

R: I would have thought early March 2020.

I: So, just when the lockdown kicked in, the first one?

R: Yes, and slightly before maybe. We were being extra cautious beforehand, before the actual legal lockdown. We were not going to too many public spots.

I: And those changes are still present?

R: They are at the moment, yes. (Interviewee 05, lower risk)

Finally, one participant, who had been homeless before the pandemic and had been placed in accommodation in the meantime, explained that while he used to drink on the streets, he was now drinking inside his house.

I: Okay, so has the price going up a little bit changed your drinking pattern at all?

R: To be honest, I wouldn't say it has. It's like... to be honest, the only real different in the way I'm drinking now, I'm drinking at home rather than on the street.

I: Alright, so you moved in to your house and then was it straight away your drinking changed from on the street to drinking in your house?

R: Yes, if I'm at home... if I've got a place to live, it's at home. I never drink on the streets. I never drink in the pub because I can't afford the pub. (Interviewee 25, possible dependence)

Interestingly, the same participant reported that once he had moved into his own house he also cut down his drinking. He explained he did this in order to be able to afford paying the rent and other accommodation-related expenses and thus avoid being evicted.

I: Can I just confirm that there hasn't been any change to the quantity that you drink?

R: To be honest, the quantity has changed. I'm not drinking as much.

I: Okay, and why is that?

R: Because I've got overheads that I've got to pay for now, haven't I? So, I like a drink but my bills have to come first.

I: Would you say that decrease has got anything to do with minimum pricing?

R: No. It's purely because of my overheads. Well, basically I had to make a decision, do I want somewhere to live or do I just want to get pissed on my money, and obviously I don't want to be out in this weather. The weather is bloody terrible, and if it's my fault that I'm evicted, I won't get help to find a new place then. (Interviewee 25, possible dependence)

Other reasons for changes in drinking patterns

A small number of participants reported changes in their drinking behaviour that were related neither to MPA legislation nor COVID-19. For instance, one interviewee explained that he was now drinking slightly less alcohol compared to the baseline interview because he had retired.

I: Since we spoke then, has your drinking pattern changed in any way?

R: No.

I: So, you're drinking the same amount?

R: Yes, more or less. If anything, less. But not because of the price, only because well I guess it's a slightly different lifestyle that I have now I'm retired. (Interviewee 27, lower risk)

Finally, one participant reported an increase in the quantity of alcohol she consumed since the baseline interview, followed by a decrease. She explained that these changes occurred because of variations in her employment status and lifestyle.

I: Since [interviewer] spoke to you earlier this year, has your drinking pattern changed in any way?

R: A little bit, yes. Over the summer, obviously I returned home from university and I ended up working in a pub, and I think my drinking habits changed a fair bit because after shift, I may pour myself a beer and I would drink that as I closed down and worked. So, I think I was probably having a beer or two after most shifts, every night, so I think it did increase a little bit.

I: And that was only for that period of time when you worked?

R: Yes, it was, yes. Then, after that finished, I wasn't drinking every night after work, but it's been very... I might have one or two beers a week, maybe less, but it's decreased quite a lot.

I: And these changes that you talked about, what do you think caused them?

R: I think it was being away from the family, the environment a little bit. The social life I've got with my housemates, where we socialise and have a few beers together, whereas if I was back home with my family, I wouldn't be doing that, because it's... I don't think my parents would be too happy with it. (Interviewee 14, increasing risk)

9. Changes in purchasing patterns

Key messages:

This chapter drew on the interview data to explore changes in alcohol purchasing patterns in the period since MPA was implemented. This included exploration of changes in the amount of money spent on alcohol and changes in how they purchased alcohol in the period since the baseline interview. Those interviewees who indicated that their expenditure on alcohol had increased were also asked to explain how they funded this additional spending.

Some interviewees continued to spend similar amounts of money post-implementation of MPA. Others, however, reported increases while others described decreases. The reasons corresponded broadly with those given for the changes in quantities consumed reported in the previous chapter. However, some additional explanations were also given including changes in diet (leading to a switch to more expensive wines rather than beers), and an increase in expenditure on alcohol to help them cope with a recent bereavement.

Those who increased their spending on alcohol had little difficulty funding the additional costs. Most were able to absorb the increase into their existing household budgets while others were able to use the money saved by not going out during the lockdown period. Some drinkers, however, had to make changes to their spending habits in order to fund their continued use of alcohol. As predicted in previous studies, there was some evidence that some harmful drinkers funded their continued use of alcohol by changing their purchasing patterns of household goods and by participating in more begging (Holloway et al. 2019, Buhociu et al. 2021).

Most interviewees continued to purchase alcohol in the same way that they had done prior to MPA. However, the few who made changes described shifts to online shopping, home deliveries and greater use of local convenience stores, attributing these changes to the pandemic.

Changes in alcohol spending

Interviewees reported a range of different patterns of expenditure on alcoholic drinks since the baseline interview. Firstly, some indicated that they were spending 'more or less the same' amount of money now, compared to when they were first interviewed, before MPA legislation was implemented.

My other half keeps saying how much money we're saving not going to the pub, but I'm like, whilst we're buying from the supermarket which is cheaper than the pub, we're probably drinking more than if we'd gone to the pub. So, I think it's probably about the same. I don't think it's any great saving. It's certainly not more. It might be a slight saving, but I would say more or less the same. (Interviewee 03, increasing risk)

The same. (Interviewee 11, higher risk)

It's about the same. I think it's exactly the same. No difference at all. (Interviewee 19, lower risk)

Secondly, other participants reported either a decrease or a slight decrease in the amount of money they spent on alcohol since the baseline interview. Reasons for the decrease were

generally related to COVID-19 restrictions and included not going out and not socialising as much as before.

I: So, are you spending less on alcohol now, or do you think it's about the same, because...?

R: No, less, probably less because we don't go out. We don't go out... even our local pub, that's where we go out socialising mostly. But still, it's a lot cheaper to drink in the house than it is to go out.

I: Okay, so even though you're drinking a bit more at home, you still think you're saving money by not going out?

R: Oh definite. Absolutely definite. 100% on that. (Interviewee 09, increasing risk)

R: It's a lot lower, yes. Obviously I'm not going out spending lots of money in clubs and stuff like that. Obviously I'm just spending the price in the shop, so it's not anywhere near as much.

I: Would you say the main reason is COVID and lockdown?

R: Definitely.

I: So, it's not MPA or other factors?

R: No, just the COVID. (Interviewee 14, increasing risk)

It's probably less, because obviously it's cheaper in your house. So, it's probably a little bit less. I don't spend any other money because I can't go anywhere, so it's not an issue. But probably a little bit less, because obviously if you go to a pub you spend more than if you buy a bottle and drink it in your house. (Interviewee 17, higher risk)

R: It's less now.

I: And the cause for that is?

R: Not around my social group at university anymore and lockdown.

I: So, it's related to COVID-19; no other factors?

R: Yes. (Interviewee 04, increasing risk)

Lastly, some participants reported an increase or a slight increase in how much they spent on alcohol since the baseline interview. One interviewee indicated the increase was due to MPA legislation.

R: You asked me how much I'm spending now. During the height of the COVID when I was drinking every night, I would be spending perhaps £450 a month.

I: Okay. And so you had a period of time when you were actually spending quite a lot. Was that more than before March 2020, so when you were at your height?

R: Yeah. Well yes obviously because it went up as I already said from £2 to £5... two and a half times the price. So whereas I was spending... well if you do the maths, two and a half times, I don't know, whereas I was spending perhaps, £150 before over the time of a month, then I was spending £450.

I: Okay. And that's because of the MPA or because of the amount that you were drinking because of the COVID?

R: No, that didn't change. The amount I was drinking didn't go up. It did go up a bit with COVID because I was drinking every night, but it's an awkward question to answer because of the COVID. It's affected so much. But whatever I was spending on alcohol overnight went up two and a half times which is massive.

I: And that's because of COVID?

R: It's because of the government putting it up. (Interviewee 13, increasing risk)

Several other interviewees indicated that the increase in the amount of money they spent on alcohol was due to COVID-19 rather than MPA.

I: And how does the amount of money that you are currently spending on alcohol each week compare to the amount that you spent before March 2020?

R: I would say probably slightly gone up.

I: And that would be because of COVID or MPA, or other factors?

R: COVID. (Interviewee 01, lower risk)

I: And how does the amount of money that you are currently spending on alcohol each week compare to the amount you spent before MPA was implemented? So before March 2020?

R: We're probably spending about two to three pound more.

I: Why do you think that is? Is it MPA, is it COVID, is it other factors?

R: I think it's COVID, and I think it's the thought of Christmas coming up and the thought that one of these days we can have people round for a meal and have a few glasses of wine perhaps. (Interviewee 05, lower risk)

One interviewee explained that the pandemic had led to a change in his diet and that his drinking changed to complement his new eating patterns.

I: Okay. And is that more or less than before March?

R: Slightly more, because I'm drinking more wine than beer now, and I tend to go for some middle-range wines in terms of price, rather than cheap wine. So I'm spending slightly more. I think I was drinking almost solely beer before, but since the lockdown, my diet has changed a little. So I don't shop around quite as much, so I'm cooking things that have been pre-ordered, so my wife and I eat together, and so the meals are slightly different, and they tend to go more for..., or wine tends to accompany them better than beer. As I say, I now have beer only once a week when I have a curry.

I: So you changed to more wine than beer, and that sounds like it's a COVID issue rather than...?

R: It is a COVID issue, yes, because it's a slight change of diet, to do with the availability of food. (Interviewee 21, increasing risk)

Finally, one interviewee explained that he had spent more money on alcohol because he had recently (in the last few days) suffered a bereavement and was using alcohol as a coping mechanism.

I: And is it true to say that you're drinking more now than you did earlier this year?

R: From last time I spoke to you yes, my drinking's gone heavier, yes.

I: And the reason for that is...?

R: I had a death... my auntie died about two days ago, you know what I mean? (Interviewee 23, possible dependence)

Funding an increase in expenditure on alcohol

Those drinkers who reported an increase in expenditure on alcohol were asked to explain how they funded this additional spending. Most interviewees indicated that the increase was absorbed within their current budgets and that they did not have to make any adjustments to accommodate the additional cost.

I: So, if you are spending just a bit more, how are you funding this? Have you absorbed the price increase in to your existing budget? Have you shifted around your finances or to free up some money?

R: No. Well, just within the financial budget I suppose is the answer. (Interviewee 05, lower risk)

I: In terms of funding that, have you had to make any changes to your household budgets to cope with that increase?

R: No, not at all.

I: So you just absorb that into your existing budget, yes?

R: That's it, yes. A small addition. (Interviewee 21, increasing risk)

I: So, how are you funding that additional cost? Have you had to shift anything around or borrow anything?

R: No.

I: So, you just absorb that price increase?

R: Yes, I would say so, yes.

I: So, you haven't had to make any changes to your spending patterns or anything?

R: No. (Interviewee 44, increasing risk)

A couple of interviewees explained that because of COVID-19 restrictions, they had extra money to spend on alcohol and that was how they funded their increase in alcohol consumption.

I: So, because your drinking went up a bit, you had to spend more money on it. How did you afford that? Was there any problems in affording?

R: No. I have a cushion.

I: So, did you have to dip in to some savings or...

R: No, in fact, just the opposite. Because we're not going out, it's accumulated rather than receded.

I: So, because of lockdown, you had more reserves?

R: Yes. One of the things is fuel. You go out and wherever we went you're using fuel and then all of a sudden, we're not using it at all. (Interviewee 16, lower risk)

I: How did you manage to fund that?

R: As I say, we've been fairly blessed through lockdown with having both the opportunity to work and having some funding from both being students, so it's not massively affected us income-wise, lockdown, so we could just afford that, if you know what I mean. And I guess, not taking the kids out to do anything or not spending money on doing anything for ourselves. That's going to be a bit of extra income that we would have normally spent on days out at the weekend that you can't do, or going out for meals that we might do once a week, that wouldn't happen, and stuff like that. I guess it's balanced against that, isn't it? (Interviewee 32, increasing risk)

Two other participants, who were both harmful drinkers, indicated they had to make some changes to their spending habits to be able to afford the increase in expenditure on alcohol.

R: Obviously it's made a slight difference when I'm paying a little bit more, but personally, I don't think it's that much to even worry about.

I: So, has your drinking changed as a result of it?

R: I wouldn't say it has to be honest.

I: Is that because you can just absorb that increase in price? You can just pay for it?

R: To be honest, I've cut my budget elsewhere.

I: What have you done?

R: Well, I've cut my food bill down for instance. I don't buy all the nice things I was buying. I still get my essential food and what I need to survive on, but I don't get as many biscuits, or the higher priced biscuits that I like more.

I: Is that so you can afford the alcohol?

R: It's not just that, in part yes it is, but also at the same time, it's to cover other debts. I have had to cut budgets left right and centre to even try and make ends meet. (25, harmful drinker)

I: Okay. So, I'm just trying to see if you're spending less on something else so that you can free up some money to pay for alcohol.

R: I don't really buy any... before I was like... probably toiletries, a new couple of bits of clothes and food but recently I've not done any food shopping, just got the one the other day in the hostel and I've made a sandwich and then go and see my mum at any point, and raid her cupboards like. (39, harmful drinker)

Another dependent drinker reported that he was funding the increase in the amount of money spent on alcohol through an increase in begging.

I: Okay, so if you're spending more now than you used to on alcohol, how are you paying for that?

R: Cash.

I: And where are you getting that?

R: I go begging in the town centre.

I: You go begging; are you doing more begging now than you used to?

R: Yes. (23, dependent drinker)

Finally, one participant indicated that the extra amount of money spent on alcohol since the baseline interview meant he was not able to make savings anymore.

I: So you were definitely spending more after March. How did you fund this? How did you manage to get the money for it?

R: I wasn't saving, whereas I was saving before.

I: So you are not saving any more now?

R: No. Well obviously I'm spending an extra £300 a month now. (Interviewee 13, increasing risk)

Changes in purchasing behaviour

In addition to changes in expenditure, interviewees were also asked if they had changed the way in which they purchased alcohol post-implementation of MPA. The majority of interviewees had made no such changes.

I: Okay, since March 2020 have you changed where and how you purchase alcohol and if so...?

R: No. (Interviewee 01, lower risk)

I: Since March, have you changed where and how you purchase alcohol?

R: No, just the same shops. (Interviewee 11, higher risk)

I've just been doing the same thing, just going to the supermarket, buying my alcohol from there. Nothing has really changed. (Interviewee 14, increasing risk)

I: Have you changed where and how you buy alcohol since March?

R: No.

I: So, you still buy it from the same shop?

R: Yes.

I: And you don't do it online?

R: No, it would always be from a walk-in shop. It may sometimes be from like a corner shop. I can't say exactly which, but it will be a convenience store sort of thing, which is in XXXX itself, but most of the time it's just from the small [supermarket] just because it's near the house. (Interviewee 46, lower risk)

Those interviewees who had made changes described a variety of differences including: no longer buying alcohol from pubs/restaurants, using more online methods and delivery options, using convenience stores and/or corner-shops more often, and buying alcohol less frequently than before. Examples of each of these changes in purchasing behaviour are provided below.

Several participants reported that due to the COVID-19 restrictions they were buying alcohol from pubs or restaurants less often than they did before.

R: I'm not buying... obviously I'm going to pubs a bit more now but nowhere near as much as I was. So, the main place I'm buying my alcohol from is shops.

I: And that's because?

R: That'll be from COVID again. Obviously with the restrictions, obviously having to leave by 10 o'clock, it's just easier to have a drink at home and not have to worry too much. (Interviewee 14, increasing risk)

I: Have you changed how and where you purchase alcohol?

R: Yes, it's now 100% from the stores rather than drinking out with a meal or anything, but again, that's purely because of the pandemic. (Interviewee 30, lower risk)

A few other interviewees indicated that they had started buying alcohol online and having it delivered to their homes, with one of them subscribing to a regular delivery via a national newspaper.

R: Well, I bought the cider in April and I bought it online. I put an order in at the local farm shop for some vegetables and meat and I saw that they were selling the local cider and thought that will save me or my husband having to go around looking for something to drink for his birthday. So, that was different.

I: Would you say that was because of COVID 19?

R: Yes, it is. I wouldn't normally order... I don't normally order groceries online either. So, that was a completely different thing which was affected by COVID. (Interviewee 02, lower risk)

I: Since March 2020 have you changed where and how you purchase alcohol?

R: Yes.

I: Can you describe the changes?

R: More on online deliveries than ever before.

I: And you made those changes again because of the pandemic?

R: Yes.

I: So, it's nothing to do with MPA?

R: No. (Interviewee 05, lower risk)

I: Still from a supermarket, but you've switched from going in to store to, you mentioned click and collect, is that right?

R: Yes, well over the last six weeks, we've been having deliveries, even better than click and collect. Then we have been to the supermarket, but only if we've missed a couple of things out and then it's just popping in to a supermarket to pick up a basket full of stuff or something's that... my wife likes cooking so she needs certain things for a recipe, just popping in to get it and stuff.

I: Why did you switch from going in to the shop?

R: Well, the pandemic... (Interviewee 09, increasing risk)

R: I've been buying it from the supermarket, but I've also been buying some Italian wine online.

I: What's that through?

R: They advertise in [newspaper]. It's one of those deals, bottles for a lot of money... now I've ordered one; they're after me all the time. (Interviewee 16, lower risk)

A couple of participants reported they were now using supermarkets or corner-shops more than they used to before March 2020 and explained this change occurred due to the COVID-19 pandemic.

I: Since March 2020, have you changed where and how you purchase alcohol and please explain the changes and why you made those changes? So, where and how you purchase alcohol, did that change?

R: Yes, so I don't go to pubs as much, and bars, and definitely not clubs, because they're shut. So, that probably means that I spend more money on alcohol at the supermarket as opposed to on nights out.

I: And that's because of the COVID-19 restrictions?

R: Yes. (Interviewee 14, increasing risk)

I: Since March 2020, have you changed where and how you purchased alcohol and if you did, please explain the changes and explain why you made those changes?

R: The only reason really, I'm buying it more from a local supermarket now, the smaller supermarket, rather than going to the big stores like [supermarket name] and [supermarket name], because of the travel restrictions. I live in a village that is outside of the town and would be going four or five miles in the car to buy one bottle of wine - would it be essential? I think the answer is no, but...

I: And that's again because of COVID?

R: Because we can't travel, yes. (Interviewee 19, lower risk)

Finally, one interviewee indicated they were now purchasing alcohol only once a week, along with their weekly shopping.

I: Since we spoke last, have you changed where and how you buy alcohol?

R: Only in that I probably buy it all in the weekly shop because I try and only go to the shop once a week at the moment, whereas maybe before, I would have been nipping to the shop, two or three or four times a week... apart from when I buy it, probably not where. I haven't been doing online shopping or anything there. (Interviewee 34, increasing risk)

10. Use of other substances

Key messages:

During the scrutiny stages of the MPA Bill concerns were raised about the possibility that some drinkers might switch from alcohol to cheaper illegal drugs as a result of an increase in the price of alcohol. In the previous 'Switching study' and in the baseline interviews people were asked to predict what might happen in this regard. The general consensus of opinion was that switching was unlikely but if it did occur it would be among those with histories of previous use and to substances that have a similar effect to alcohol (Holloway et al. 2019; Buhociu et al. 2021). This second wave of the longitudinal study starts to investigate if the predictions about switching had been borne out by events and this chapter presented findings from this part of the interviews.

As predicted by Holloway et al. (2019) and Buhociu et al. (2021), most interviewees did not switch from alcohol to other substances during the follow-up period. For these drinkers, alcohol remained their substance of choice and switching to illegal drugs was not an option. Also, as predicted, switching to illegal drugs was only noted among dependent drinkers with histories of using these substances. Indeed, one interviewee reported an increase in the use of crack as a cheaper alternative to alcohol (a decision influenced by both MPA and the pandemic) and another turned to tranquillisers to help cope with unplanned alcohol withdrawal symptoms.

Substance switching

Apart from a small number of isolated cases, interviewees overwhelmingly stated that no changes occurred in terms of the use of other substances since the baseline interview. For the most part this was because they had no prior history of illegal drug use and they had not started to use any following the implementation of MPA in March 2020.

I: Okay. The next question is about your use of other substances and we are talking about illegal drugs. Have you used illegal drugs?

R: No.

I: And since March, has there been a change?

R: I've never, ever used them. (Interviewee 02, lower risk)

No change. I didn't take them before and I don't take them now. (Interviewee 04, increasing risk)

Nothing has changed. I don't take illegal drugs. I don't smoke weed or anything like that. Nothing has changed at all. (Interviewee 14, increasing risk)

I: Since March, has there been a change in your use of other substances?

R: I don't do anything else.

I: No prescription drugs or anything like that?

R: No prescription drugs, no chemicals, no drugs, no smoking, nothing like that. (Interviewee 26, increasing risk)

One participant who was using drugs at baseline reported they continued to consume them but indicated no changes in their consumption pattern since then.

I: Since March, has there been a change in your use of other substances? Maybe I should have asked you first, did you use any substances before or...?

R: Yes.

I: And did that change in any way?

R: No. I think probably around the same level. (Interviewee 12, increasing risk)

Lastly, one participant reported an increase in the consumption of chocolate biscuits since the baseline interview, which they attributed to the fact that they were stuck in the house because of the COVID-19 pandemic.

I: Since March, has there been a change in your use of other substances? Have you ever used drugs, that's the first thing I should ask?

R: No, I was going to say, there's probably an increase of the use of chocolate biscuits, but I don't think that counts.

I: Tell me more about that, why did that change?

R: Because I'm probably thinking, "I can have a coffee and a biscuit", and probably not been so good on the diet being stuck in. No change in any... I don't take any other drugs, no.

I: That's important as well to record. Many people might have changed their eating habits and sometimes it's not always the most healthy changes that happen. That's again because of...?

R: COVID-related, yes. (Interviewee 17, higher risk)

The small number of people who did report substance switching described changes that involved some potentially harmful behaviours. One participant indicated that this change was a direct result of MPA legislation. This interviewee explained that the price increase resulted in him having less money to spend on alcohol and that he had used painkillers and diazepam to cope with alcohol withdrawal symptoms.

R: I sold it ... I got £19 for it. I got enough for like a day and a bit.

I: Let me just catch that again, so you sold your phone.

R: Yeah.

I: You sold it so you could get some money. Is that for drinking?

R: Yeah.

I: Oh, bless you. How about using other substances. Have you been using other drugs?

R: Last week yeah.

I: And is that unusual for you to do that? Is it a money thing?

R: A bit, because I couldn't get a drink and somebody offered me some Diazepam on tick until I got some money. I bought just a takeaway and cigs and that and then I bought some painkillers and somebody gave me some painkillers.

I: Oh dear. Is that unusual then? Would you normally do that or is this to do with minimum pricing in any way? The price of your drinks being more or is this some other reason?

R: A bit because I had no money to get a drink and I was just shaking and felt unwell. Alcohol just helps me to take the edge off. (Interviewee 39, possible dependence)

Another harmful drinker explained that due to the price increase he could not afford to drink as much alcohol as before, and to compensate for this he had started using more crack cocaine than usual. This interviewee explained that lockdown and the high COVID-19 death rates had contributed to his increased use of drugs.

I: And how are you coping with that increase in price?

R: I'm not coping... that's what I was saying. When I'm done with the drinks I go onto crack, you know what I mean? If I don't have a drink I go onto crack.

I: So if you can't get the drink, you'll use crack, is that right... is that what you're...?

R: Yes.

I: Okay.

R: That's right, yes.

I: Okay and you're using more crack now... is that because you can't afford the alcohol?

R: Yes...

I: Okay and you're also using crack now... you were using crack before, but are you using more crack now?

R: Only on my pay day I do crack. I buy like a fifty stone every fortnight, when I get my money.

I: Okay, and have you always done that, or is it now more than it was before we spoke?

R: Well I did stop the crack, but I'm back on it. Since I've been on lockdown and all the death, it drew me back to crack and drinking more. (Interviewee 23, possible dependence)

The only other interviewee who reported a change in their use of substances since the first interview indicated that he had stopped using illegal drugs and instead started using more alcohol. It is not entirely clear why this change happened, but it seems COVID-19 restrictions made it too difficult to buy illegal drugs, which resulted in a switch to alcohol.

I: Okay. Has your drinking changed at all this year? So, since... So, minimum pricing came in, and then lockdown. Has your drinking changed at all?

R: Well, basically, I was in this place, right. My son takes drugs. I was on crack, I was doing heroin, I was doing everything. So, I stopped all that.

I: Yeah, well done.

R: Which showed that I was alcohol-dependent. And that's how it started. Because I couldn't get crack then at nine o'clock at night, or heroin, or what have you, or any other drug, then that's when I started on the bottles of vodka then, and then now it's my habit then, and it's just got worse and worse and worse from there. (Interviewee 50, possible dependence)

11. General impact of MPA legislation

Key messages:

This chapter has looked more broadly at the impact of MPA on drinkers' lives and reflected on the impact of MPA on their friends, family and those in their communities.

The general consensus of opinion was that MPA had made little difference to our interviewees' lives. For the most part this was because they did not drink enough for it to affect them or because they could afford the price increase. While most interviewees had not noticed an impact on those around them, a small number noticed or felt that it had and these changes were broadly in line with the predictions made in previous research (see Holloway et al. 2019 and Buhociu et al. 2021).

Some interviewees noticed a switch to illegal drugs (e.g. synthetic cannabinoids – Spice, crack cocaine and cannabis) while others noted a switch from one type of alcohol to another (i.e. from cider to spirits). Some interviewees noted that family members had started shopping for alcohol over the border in England where MPA is not operating, while others suspected an increase in shoplifting and noted shifts in household budgeting (i.e. adjusting spend on food) to fund continued use of alcohol.

Impact on daily life

The general consensus among interviewees was that the introduction of a minimum price for alcohol did not have an impact on their existence. Some participants said that the MPA legislation had not had an impact on their lives because it had not affected the price of the drinks they consume while others did not provide any specific details.

I: And has minimum pricing had any impact on your life?

R: None at all.

I: None at all? And why would you think that is the case?

R: I haven't changed my habits. I haven't felt I needed to. It hasn't... I haven't noticed any difference in cost, so it hasn't affected me at all. (Interviewee 21, increasing risk)

I: Has minimum pricing had an impact on your life at all?

R: No.

I: Could you briefly explain for the recorder, why you think that might be?

R: I think because of the... we buy more expensive products, so there is a broader margin for the... we didn't notice any price changes really. (Interviewee 30, lower risk)

I: Has MPA had an impact on your life more generally?

R: As I say, no it hasn't. It hasn't at all. I haven't noticed any great changes in my own personal experience of alcohol. (Interviewee 19, lower risk)

I: Has minimum pricing had an impact on your life at all?

R: No, not really. I just go about my daily business as usual. It hasn't affected me. (Interviewee 31, lower risk)

In addition, for several other interviewees, MPA legislation had no impact because money was not an issue for these individuals and/or they did not consume large quantities of alcohol.

I: Has MPA had an impact on your life more generally?

R: I don't think it has, honestly.

I: You said you never even noticed?

R: No, like I said, I'm not one of those people to sort of be careful where they spend money and stuff. I'd rather buy stuff I like and stuff like that, so I haven't been really too focused on the pricing. (Interviewee 14, increasing risk)

I: Has minimum pricing for alcohol had an impact on your life more generally?

R: No.

I: Can you tell me why that's the case?

R: Because I'm not a massive drinker anyway, so it really doesn't have an impact on me. I guess I'm quite comfortable with money at the present so it's not an issue for me. (Interviewee 20, lower risk)

Impact on others

At the end of the interview, participants were asked to reflect on how the introduction of MPA might have affected those around them. Again, most interviewees thought that the implementation of MPA legislation had not affected others either.

I: Okay, so I've focused on you so far. So, can you reflect on other people, those around you, your family, friends? Have you noticed that minimum pricing has impacted on any of them and their drinking?

R: No, none of my family or friends, no. (Interviewee 09, increasing risk)

I: Okay, so we've focused very much on you and your experiences. Can you comment on the impact of minimum pricing on anyone else around you? Any of your family and friends?

R: No.

I: You've not noticed any changes in their drinking?

R: Oh no. (Interviewee 16, lower risk)

I: Okay. Has it affected any people around you, so any family or friends? Have you noticed it impacting on them?

R: No, not that I've noticed, and not that anyone's mentioned to me. (Interviewee 21, increasing risk)

Interestingly, two participants reported witnessing some of their acquaintances (who were dependent drinkers as well) switching to synthetic cannabinoids (i.e. 'Spice') or crack cocaine and cannabis as a result of the significant increase in the price of strong ciders.

R: Or they're smoking spice, or they're doing... They can't afford that cheap drink that made them turn into alcoholics from the beginning, they quadrupled in price, you know what I'm saying?

I: So, have you got friends who've done that?

R: Yeah, I've got loads of friends who've done that.

I: So, what, they've stopped drinking cider and they've switched to something else?

R: Spice. Yeah. Yeah. (Interviewee 50, possible dependence)

I: Okay, what about their use of other substances, have they changed their use of other medicines or illegal drugs?

R: Most of the people I drink with now smoking a bit of crack and spliffs but.

I: And do you think they wouldn't have been doing that otherwise?

R: I know they did a little bit, not much. (Interviewee 39, possible dependence)

A few interviewees reported that some of the dependent drinkers they knew had switched to spirits (i.e. whisky and vodka) and strong lagers after the implementation of the MPA legislation. They explained that these individuals were cheap cider drinkers and their move to a new type of alcoholic drink was driven by the price increase.

Yes, so my grandad, he's always had an alcohol problem. He doesn't like to see himself as having one but something that the whole family knows. So, he used to buy the dead cheap ciders... and all that cheap stuff, because he would drink high quantities every evening, and I've definitely noticed a financial problem and that he has not been cutting down. ... Yes, and actually, when it first came in, he stopped buying all the cheap stuff and he started buying a bottle of whisky. ... He switched to whisky. (Interviewee 32, increasing risk)

Yeah. Because you can't pay one minute... You can't pay £3 for [cider brand] when it's supposed to be a cheap man's, alcoholic's drink. You can't quadruple it, can you? That's wrong, that is [unclear 13:52]. That's like being a drug dealer and saying one minute you're giving £3 for a bag of heroin, now you're paying £12 for a bag of heroin. That's basically... That's what it feels like to me. I think the government are behind all this anyway. ... Yeah, the impact of minimum pricing is they're switching to vodka rather than drinking that cheap cider. Yeah. (Interviewee 50, possible dependence)

R: Most people I know still... nobody drinks white cider any more...

I: Okay. So, if they're drinking cans, does that mean they're drinking something different or just drinking less?

R: They are drinking strong lagers.

I: So they switched from cider to strong lager.

R: Yeah, 8.5%, 9% lagers. It's about two ... you get a can for 1.99 and it's like [cider brand] about £1.60 I think anyway now, so... (Interviewee 39, possible dependence)

In one case, the interviewee went on to suggest that her grandfather's consumption of alcohol had escalated since the introduction of MPA. She was suspicious that he was now drinking cider as well as whisky whereas previously it had just been cider.

He switched to whisky. Recently I've seen him with [cider brand] and stuff again, but he could also be drinking the whisky as well now. I can't say that for sure because he's also started hiding it. So, I think it's actually escalated a lot for him because of that. He didn't used to try and hide stuff before and now he seems to be trying to conceal aspects of it. So, to me that makes me feel like things have escalated. (Interviewee 32, increasing risk).

A couple of participants indicated that since MPA had been implemented, some of their family members had started buying alcohol over the border, in England.

R: I anecdotally, speaking to my father in law and a couple of other people of this age, I know they were heading over to Oswestry when it was brought in place here, to buy certain vodkas and stuff that was cheaper over there, but personally didn't.

I: Do they continue to do that?

R: I think if my father in law was over that way, he'll pick up a few bottles of vodka because it'll be slightly cheaper of there, yeah. (Interviewee 34, increasing risk)

I: I know it's hard to think back to March, but have you noticed anything about it at all, apart from actually seeing the price of cider change?

R: And hearing about it on the news and on Wales Online and then now my nan was talking about it a lot because she drove to Bristol. She buys wine and beer, her wine and my grandad's beer in bulk and it's gone up. Because it went up a bit, she drove to Bristol to get it. Some of the [supermarket] in Bristol are cheaper. (Interviewee 39, possible dependence)

Another interviewee described how he thought a dependent drinker he knew was shoplifting more since MPA was implemented in order to fund the increase in the price of her alcoholic drink of choice, cider.

I think she just steals the alcohol because that's what she wants. Basically from what she said to me, it's too much effort to have to steal stuff to have to sell it whereas if she just steals the alcohol, she don't have to do anything else other than drink it... I think it had a big impact on her because when... before minimum pricing, her drink was £4 or whatever it was and she could go... with her money, I think she could drink for 22 days. Then she'd start stealing to cover the next couple of days till she gets her next payment. But now, I think she can only manage 10, 12 days and then the rest is about going out and stealing it. (Interviewee 25, possible dependence)

Finally, an interviewee reported that some of his/her friends who were on minimum wage had to adjust their spending in other areas such as food in order to make up for the increase in the price of alcohol.

Yes, I've got friends who have minimum paying jobs and kid and... my one friend in particular, two children, lives with her partner. Both minimum wage jobs and they like a drink of the evening. I think they drink lager, strong lager or cider, and they... they'll still drink and I think with their shopping and stuff like that... let me just think. I'm just trying to think back to conversations that we've had. ... It's a tough one. It's a tax on the poor. That is what we were having a conversation about and it's taxing them people. They went through the same thing with the anxiety and stuff over COVID, and they were drinking and they were just complaining about the price of it and that they would have to make choices on their shopping and food and things like that. They would maybe go for a cheaper option, because they've only got a certain amount they can spend on food and stuff. It's a case of, "I'm not stopping my drink. If I want to drink, I'll have a drink. I'll have to cut down in other areas" that kind of thing. So, I have noticed that. (Interviewee 44, increasing risk)

12. Discussion

This concluding chapter summarises the research findings and reflects on them in light of the literature reviewed in Chapters 3 and 4 of this report.

Assessing the impact of MPA in the context of COVID-19

For researchers tasked with assessing the impact of MPA on drinkers in the general population, the pandemic presents a particular challenge due to its potential confounding effect. While this may well be challenging, it is not insurmountable. Indeed, any rigorous assessment of impact would always seek to control for confounding factors (Bryman, 2016). In many respects, COVID-19 is just one of many factors, albeit a particularly important one, that is likely to influence people's drinking patterns and related behaviours.

To help understand the impact of COVID-19 on drinking patterns across the UK, a review of peer-reviewed research published following implementation of MPA and the emergence of the pandemic was undertaken (see Chapter 3) along with a review of grey literature and media sources (see Appendix 3). The reviews included a wide range of material located through a variety of methods including a systematic review of selected bibliographic databases. The headline message that emerged from the two reviews was of a mixed pattern of consumption with some increases, some decreases and roughly half of drinkers maintaining their pre-pandemic drinking patterns.

Effectiveness of alcohol pricing policies

In addition to assessing the evidence base in terms of the impact of COVID-19 on drinking patterns, recently published research that had investigated the impact of pricing policies on drinking patterns and related behaviours was also reviewed. Searches of ASSIA and Google Scholar were undertaken along with hand searches of Public Health Scotland and NHS Health Scotland's websites to locate emerging findings from the Scottish evaluation of MUP that had not been identified in the other searches. In total, we included 21 publications containing useful and relevant information regarding the impact and potential impact of pricing policies on drinking patterns.

Like the two previous reviews, the current review was broadly positive in terms of the impact of pricing policies on drinking and related behaviours. Research emerging from Scotland is unanimously positive in noting that MUP has increased prices and reduced sales, consumption and alcohol-related harms, including deaths (Robinson, et al. 2020; Ferguson et al. 2021; Alcohol Focus Scotland, 2021). Furthermore, the anticipated negative consequences (e.g. substance switching) have not to any great extent materialised although some shifting of household budgets away from essential supplies towards alcohol has been noted (Buykx et al, 2021). Early findings in relation to the impact of MPA in Wales are also positive and mirror to some extent those from Scotland (Anderson et al., 2021).

Research from outside of the UK has been dominated by policy analyses that have sought to identify what policies work best in what locations and for what populations (e.g. Grigoriev and Bobrova, 2020). The broad consensus is that increasing prices has reduced (or is likely to reduce) alcohol sales and consumption and subsequently alcohol-related harm. The international literature is useful in several respects but particularly in its recommendations for the design and implementation of future alcohol pricing policies. Rather than repeat these

findings here, they will be drawn upon when relevant as findings are discussed in the sections below.

Limitations

Before discussing findings, it is important to note that the sample of 32 interviewees was a sub-sample of the longitudinal study sample, which included 42 drinkers. Attrition is not uncommon in longitudinal research and this project is no exception. Indeed, it was not possible to include 10 members of the original baseline sample in the study. One member of the sample had sadly died in the period since the baseline interview, and one had to withdraw for health reasons. Eight other drinkers could not be contacted despite several attempts by email and telephone.

Fortuitously, with the kind assistance of one of our 'hostel' contacts, one member of the hostel sample was replaced with another harmful drinker. However, it was not possible to replace the others for several reasons including ethical obligations to protect people from harm (e.g. stress, anxiety and pressure), particularly during a global pandemic, and the resource implications of recruiting new sample members from the National Survey of Wales.

In addition, while the follow-up sample of interviewees is usefully diverse in many respects including drinking patterns, sex, age and marital status, it must be noted that minority ethnic groups are not well represented. Furthermore, some areas of Wales (e.g. Cardiff and Wrexham) are more heavily represented than others. Caution must therefore be taken when generalising the results beyond those represented in the research.

Finally, it is important to note that the research was based on retrospective accounts of behaviours that occurred during the midst of a global pandemic. Accuracy of recall is an issue in any research project involving self-report methods, particularly one involving alcohol consumption, where recollection of events may be clouded by intoxication. The added stress of coping with the COVID-19 pandemic may well have compounded this methodological problem. Any conclusions drawn from the research must therefore be considered with these limitations in mind.

Quantitative measures of change

As part of the semi-structured interviews, participants were asked to answer a series of closed questions to gather information about their personal circumstances, drinking patterns and quality of life. The goal was to monitor if anything had changed since the baseline interview. As noted in Chapter 5, few changes were noted in the nine-month period since implementation of MPA and the emergence of the pandemic. Drinking status (as measured by the AUDIT) remained stable for most interviewees. The only substantive changes recorded were for five drinkers who shifted to less harmful patterns of drinking.

Most interviewees scored positively on the quality-of-life measures and where changes had occurred between baseline and follow-up, these were largely in a positive direction. However, a small group of interviewees reported changes in a negative direction. This included a worsening in terms of their ability to cope financially, life satisfaction, feeling that they are doing worthwhile things, happiness and levels of anxiety.

These findings correspond fairly well with those reported in Chapter 3 and 4. Indeed, Chapter 3 highlighted that most drinkers in the general population had maintained pre-COVID-19 drinking patterns (Bakaloudi et al., 2021, Public Health England, 2021), while Chapter 4 found that alcohol pricing policies (including minimum unit pricing) were broadly effective in reducing

sales, consumption and alcohol-related harms (e.g. Anderson et al., 2021, Xhurxhi, 2020, Alcohol Focus Scotland, 2021).

Preparation for MPA

As predicted in the baseline report, the majority of interviewees did nothing to prepare for the implementation of MPA. Only one interviewee indicated that he had taken preparatory action and this was expressed in vague terms about how he *might have* bought a bottle of whisky before its price increased. The predictions of stockpiling prior to the price increase that were made at baseline, had clearly not materialised in the period following implementation within this sample of drinkers (Buhociu et al., 2021).

At follow-up, publicity about MPA prior to its implementation was noted by the majority of interviewees. However, some interviewees had not noticed any publicity, which might suggest that the information had not been publicised widely enough. The main implication of this finding is that other countries intending to implement minimum pricing for alcohol should be mindful to widely publicise its introduction across a range of platforms. Reflecting on Cook et al.'s (2020) Australian research, it might also be useful for policy makers and governments to clearly communicate the specific effects of MPA to highlight at population level where financial impacts may be small and where harm-reduction benefits may be large. Such action might help to improve attitudes towards minimum pricing policies. Indeed, research from Scotland reported an improvement in attitudes towards MUP post-implementation and the authors speculate that an improved level of understanding might be a key contributory factor (Ferguson et al., 2020).

Awareness of MPA post implementation

While some interviewees had noticed signs in shops about MPA, most interviewees were unaware that MPA had been implemented in March 2020. Several explanations for this lack of awareness were given including: their choice of drink being unaffected by MPA, limited trips to shops during lockdown and a lack of interest in prices. Those who were aware varied in terms of the point at which they noticed the change in price. For some this was on the day of implementation but for others it took longer to come onto their radar.

When price changes were noticed, these were in respect of a range of alcoholic products including strong ciders and beers, wine, spirits and even some lower alcohol products. Changes were also noted in the price of bulk products (i.e. crates of lagers). Availability was largely unchanged although a few interviewees noticed that some products including strong ciders were no longer available.

The findings in relation to price increases are consistent with other studies assessing the impact of minimum pricing policies in both Scotland and Wales. After implementation, prices of all types of alcohol increased, most notably the price of cider (Xhurxhi, 2020; Alcohol Change, 2021). The change in price of bulk products is also consistent with other research. Alcohol Change (2021), for example, found that fewer multi-buy offers were available in Wales post-implementation, although these were still available in England.

The findings in relation to availability also reflect the existing evidence base. For example, the Alcohol Health Alliance (2020) noted that some brands had reformulated their products to sell them in smaller containers and at lower strengths, while some had stopped being sold altogether.

Drinking patterns

Most interviewees described changes in their drinking patterns in the period since the baseline interview and this included both drinkers who increased their consumption and those who decreased the amount of alcohol consumed. In all but one case, the change in drinking pattern was attributed to COVID-19 rather than to MPA. The only MPA-related change was in relation to a dependent drinker who switched away from cider to vodka as the prices of the two became closer following the implementation of MPA.

The virtual absence of a shift from one form of alcohol to another stronger form is interesting given that it was a widely anticipated outcome in our earlier studies (e.g. Holloway et al., 2019; Buhociu et al., 2021). However, the finding is consistent with research that has examined real life scenarios rather than predictions, including research focusing on dependent drinkers (Buykx et al. 2021).

The main COVID-related reason for a decrease in alcohol consumption was linked to the lack of socialising during lockdown while the main explanations for increases were due to loneliness, boredom and anxiety. These findings are consistent with those reported elsewhere including Australia, the US and France (Biddle et al., 2020; Rodriguez et al., 2021; Flaudius et al., 2021).

Some interviewees described participating in a greater number of drinking sessions, which resulted in an overall increase in the amount of alcohol consumed. Another commented that the restrictions on shop opening times had resulted in the consumption of larger quantities of alcohol more rapidly than previously. Overall, the mixed findings reported in this chapter support those of other researchers exploring the impact of COVID-19 on drinking patterns in the UK and other countries (Public Health England, 2021; Prestigiaco, et al., 2021; Wisk and Buhr, 2021).

Purchasing patterns

In the period post-implementation of MPA, some interviewees continued to spend similar amounts of money on alcohol as they had before implementation. Others, however, reported increases while others described decreases. The reasons for these changes, perhaps unsurprisingly, corresponded broadly with those given for the changes in consumption. However, some additional explanations, were also given including: a change in diet (leading to a switch to more expensive wines rather than beers), and an increase in expenditure on alcohol to help cope with a recent bereavement. The extent to which these changes are permanent or simply short-term responses to specific events is currently unclear and is something we will explore in the next wave of interviews.

Among our sample of interviewees, those who increased their spending on alcohol had little difficulty funding the additional costs. Most were able to absorb the increase into their existing household budgets while others were able to use the money saved by not going out during the lockdown period. Some drinkers, however, had to make changes to their spending habits in order to fund their continued use of alcohol. As predicted in previous studies, we found that a small number of harmful drinkers funded their continued use of alcohol by changing their household purchasing patterns and by participating in more begging (Holloway et al. 2019, Buhociu et al. 2021). This shifting of household budgets was also reported among harmful drinkers in Scotland following implementation of MUP (Buykx et al., 2021).

Most interviewees continued to purchase alcohol in the same way that they had done prior to MPA. However, the few who made changes described shifts to online shopping, home

deliveries and greater use of local convenience stores attributed to the impacts of the pandemic.

Use of other substances

As predicted by Holloway et al. (2019) and Buhociu et al. (2021), most interviewees did not switch from alcohol to other substances during the follow-up period. For these drinkers, alcohol remained their substance of choice and switching to illegal drugs was not an option. Also as predicted, switching to illegal drugs was only noted among dependent drinkers with histories of using these substances. Indeed, one interviewee reported an increase in the use of crack as a cheaper alternative to alcohol (a decision influenced by both MPA and the pandemic) and another turned to tranquillisers to help cope with unplanned alcohol withdrawal symptoms. These findings are broadly consistent with the Scottish research, which found that predictions about substance switching had not materialised to any great extent post implementation of MUP (Buykx, et al., 2021).

Impact on drinkers' lives

Generally speaking, MPA made little difference to our interviewees' lives in the period following implementation. For the most part this was because they did not drink enough for it to affect them or because they could afford the price increase. However, a small number of interviewees noticed that MPA had affected their family and friends and these changes were broadly in line with the predictions made in previous research (see Holloway et al. 2019 and Buhociu et al. 2021). Some interviewees noticed a switch to illegal drugs (e.g. synthetic cannabinoids – Spice, crack cocaine and cannabis) while others noted a switch from one type of alcohol to another (i.e. from cider to spirits). In one case, the switch in alcohol type was believed to have become an addition rather than a substitute when the family member started drinking cider again whilst it was suspected that they were continuing to consume spirits.

Some interviewees noted that family members had started shopping for alcohol over the border in England where MPA is not operating, while others suspected an increase in shoplifting and noted shifts in household budgeting to fund continued use of alcohol. The impact on cross-border shopping is interesting and reflects research conducted in Estonia, which highlighted the attraction of shopping in neighbouring Latvia where alcohol prices were considerably cheaper (Parna, 2020). The main implication is that if the impact of MPA is to be fully realised for communities living close to the border, then alcohol policy in neighbouring countries (e.g. England) needs to be consistent with those objectives. The call for England to introduce MPA would appear to be a logical one in this context (Alcohol Health Alliance, 2021).

Concluding comments

This study is the first to gather feedback on the impact of minimum pricing for alcohol on drinking patterns and related behaviours in Wales. It is also the first in the UK (and one of very few studies across the world) that has examined the impact of COVID-19 on drinking patterns using a longitudinal design and qualitative research methods.

The research differs to previous research on MPA in Wales in that it is based on real-life scenarios rather than predictions of events (Buhociu et al., 2021; Holloway et al., 2019). It has therefore enabled us to monitor whether the anticipated changes, including possible unintended consequences, have in fact materialised and been borne out by events.

The main conclusion to draw from the research is that MPA has, to date, had little impact on the drinking patterns or lives of the drinkers in our sample. While some drinkers reported

increases and others decreases in consumption in the period following implementation, these changes were attributed, in all but one case, to COVID-19 rather than to MPA. In line with COVID-related research from around the world, increases in alcohol consumption were linked to loneliness, boredom and stress while decreases were linked mainly to a lack of socialising during lockdown.

Importantly, the widely anticipated negative consequences of increasing the price of alcohol (e.g. increases in crime, homebrewing, substance switching, use of illegal alcohol, unplanned withdrawal), were not widely reported within our sample. The few cases where potentially harmful behaviours (e.g. a shift to crack and tranquilliser use) were reported, these were, as predicted, among dependent drinkers and those with histories of illegal drug use.

Whether or not the positive impact of minimum pricing on consumption and alcohol-related harms noted in Scotland prior to the pandemic, will materialise in Wales post-COVID, remains to be seen. The next wave of data collection, which will be some time after any significant national lockdown in Wales, presents a useful opportunity to assess the impact of MPA without the confounding impact of national lockdowns and a global pandemic.

Next steps

This report is the second of four reports planned for the assessment of the impact of MPA on the wider population of drinkers in Wales. The next report will focus on data collected two years post-implementation of the legislation and the fourth will present findings based on data collected 42 months post-implementation. Both of these reports will be hugely important in helping to assess the impact of MPA on drinkers in Wales. They will present findings from research conducted at a time, hopefully, when people are able to socialise more freely and when on-licensed premises are open for business.

In the next waves of the research, the plan is to conduct a third wave of interviews with our interview sample. Attrition is a key issue in any longitudinal study and this project is no exception. Indeed, of the original sample of 41 interviewees, it was not possible to include 10 in the second wave of interviews. Moving forward, it is intended to replace all lost sample members with similar types of drinker (e.g. through the National Survey for Wales, and through our hostel contacts). This will help to maximise the input of the different kinds of drinker in the research.

It is also planned to repeat the cross-sectional survey that was run in the baseline study in the next waves of the research. As noted in the baseline report, the characteristics of survey respondents will be monitored throughout the data collection period and a flexible but targeted campaign to generate interest and encourage participation among any under-represented sub-groups will be employed. The goal will be to obtain responses from as representative a sample as possible.

The portfolio of research emerging from the assessment of MPA on the wider population of drinkers is important. It will help to inform and guide the shape and scope of MPA in Wales and, potentially, other countries around the world.

13. References

- Alcohol Change (2021) The Effects of Minimum Unit Pricing on Popular Alcohol Brands. Alcohol Change UK. Unpublished
- Alcohol Focus Scotland. (2020, November 25). *Reducing harm caused by alcohol*. Retrieved from [Alcohol focus Scotland](#)
- Alcohol Health Alliance. (2020). *Small Change: alcohol at pocket money prices*. AHA.
- Alladio, E., Visintin, L., Lombardo, T., Testi, R., Salomone, A., & Vincenti, M. (2021). The Impact of COVID-19 Pandemic and Lockdown on Alcohol Consumption: A Perspective from Hair Analysis. *Frontiers in Psychiatry*.
- Alpers, S., Skogen, J., Maeland, S., Pallesen, S., Rabben, A., Lunde, L., & Fadnes, L. (2021). Alcohol Consumption during a Pandemic Lockdown Period and Change in Alcohol Consumption Related to Worries and Pandemic Measures. *Environmental Research and Public Health*.
- Anderson, P., Llopis, E., & O'Donnell, A. (2020). Impact of COVID-19 Confinement on Alcohol Purchases in Great Britain: Controlled Interrupted Time-Series Analysis During the First Half of 2020 Compared With 2015-2018. *Alcohol and Alcoholism*, 1-11.
- Anderson, P., O'Donnell, A., Kaner, E., Llopis, E., Manthey, J., & Rehm, J. (2021). Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses. *The Lancet Public Health*.
- Araya, D., & Paraje, G. (2018). The impact of prices on alcoholic beverage consumption in Chile. *Plos One*.
- ASSIA. (2021). *ProQuest*. Retrieved from [ASSIA](#): Applied Social Sciences Index and Abstracts
- Avery, A., Tsang, S., Seto, E., & Duncan, G. (2020). Stress, Anxiety and Change in Alcohol Use During the COVID-19 Pandemic: Findings Among Adult Twin Pairs. *Frontiers in Psychiatry*.
- Bakaloudi, D., Jeyakumar, D., & Jayawardena, R. (2021). The impact of COVID-19 lockdown on snacking habits, fast-food and alcohol consumption: A systematic review of the literature. *Clinical Nutrition*.
- Balhara, Y., Singh, S., & Narang, P. (2020). The effect of lockdown following COVID-19 pandemic on alcohol use and help seeking behaviour: Observations and insights from a sample of alcohol use disorder patients under treatment from a tertiary care centre.
- Barod. (2021). *Lessons from COVID-19 for substance misuse services*. Barod.
- BBC. (2020, 04 28). *Coronavirus: Alcohol fears amid lockdown boredom*. Retrieved from [BBC News](#)
- BBC. (2020, 04 16). *Coronavirus: Shoppers stock up on alcohol amid lockdown*. Retrieved from [BBC News](#)
- BBC News. (2020, February 17). *Welsh alcohol minimum pricing awareness campaign starts*. Retrieved from [BBC](#)
- Biddle, N., Edwards, B., Gray, M., & Sollis, K. (2020). *Alcohol consumption during the COVID-19 period: May 2020*. Australia: Centre for Social Research & Methods.

- Boys, A., Marsden, J., Stillwell, G., Hatchings, K., Griffiths, P., & Farrell, M. (2003). Minimising respondent attrition in longitudinal research: practical implications from a cohort study of adolescent drinking. *Journal of Adolescents*, 363-373.
- Bramness, J., Bye, E., Moan, I., & Rossow, I. (2021). Alcohol Use during the COVID-19 Pandemic: Self-Reported Changes and Motives for Change. *European Addiction Research*.
- Bryman, A. (2016). *Social Research Methods*. Oxford: Oxford University Press.
- Budimir, S., Probst, T., & Pieh, C. (2021). Coping strategies and mental health during COVID-19 lockdown. *Journal of Mental Health*, 156-163.
- Buhociu, M., Holloway, K., May, T., Livingston, W., & Perkins, A. (2021). *Assessing the Impact of Minimum Pricing for Alcohol on the Wider Population of Drinkers - Baseline*. Cardiff: Welsh Government.
- Burgess, R. (1984). *In the Field: An introduction to Field Research*. Abingdon, Oxon: Routledge.
- Buykx, P., Holmes, J., Beard, E., Brown, J., Brennan, A., Meier, P., . . . Webster, L. (2020). Effects on alcohol consumption of announcing and implementing revised UK low-risk drinking guidelines: findings from an interrupted time series analysis. *Epidemiol Community Health*, 942-949.
- Callinan, S., Mojica-Perez, Y., Wright, C., Livingston, M., Kuntsche, S., Laslett, A.-m., . . . Kuntsche, E. (2021). Purchasing, consumption, demographic and socioeconomic variables associated with shifts in alcohol consumption during the COVID-19 pandemic. *Drug and Alcohol Review*, 183-191.
- Canadian Centre on Substance Use and Addiction (CCSA). (2020, 05). *Boredom and Stress Drives Increased Alcohol Consumption during COVID-19: NANOS Poll Summary Report*. Retrieved from [CCSA](#)
- Capasso, A., Jones, A., Ali, S., Foreman, J., Tozan, Y., & DiClemente, R. (2021). Increased alcohol use during the COVID-19 pandemic: The effect of mental health and age in a cross-sectional sample of social media users in the U.S. *Preventative Medicine*.
- Cardiff Met. (2021, 03). *COVID-19 UK Public Experience Study Website*. Retrieved from [Cope Study](#)
- Cerezo, A., Ramirez, A., O'Shaughnessy, T., Sanchez, A., Mattis, S., & Ross, A. (2021). Understanding the Power of Social Media during COVID-19: Forming Social Norms for Drinking among Sexual Minority Gender Expansive College Women. *Journal of Homosexuality*, 560-576.
- Chalakh, A., Ghandour, L., Anouti, S., Nakkash, R., Yassin, N., & Afifi, R. (2020). The impact of broad-based vs targeted taxation on youth alcohol consumption in Lebanon. *Health Policy Plan*, 625-634.
- Charles, N., Strong, S., Burns, L., Bullerjahn, M., & Serafine, K. (2021). Increased mood disorder symptoms, perceived stress and alcohol use among college students during the COVID-19 pandemic. *Psychiatry Research*.
- Chick, J. (2020). Alcohol and COVID-19. *Alcohol and Alcoholism*, 341-342.

- Chinnaratha, M., & Harding, D. (2020). Impact of COVID-19 on alcohol-related liver disease: An emerging public health issue in Australia. *Journal of Gastroenterology and Hepatology*, 34-104.
- Christie, N., Vojvodic, V., & Monterosso, J. (2021). The Early Impact of Social Distancing Measures on Drug Use. *Substance Use and Misuse*, 997-1004.
- Colbert, S., Wilkinson, C., Thornton, L., & Richmond, R. (2020). COVID-19 and alcohol in Australia: Industry changes and public health impacts. *Drug and Alcohol Review*, 435-440.
- Cook, M., Livingston, M., Vally, H., & Callinan, S. (2020). Australians' support for alcohol price-based policies. *International Journal on Drug Policy*.
- Coomber, K., Miller, P., Taylor, N., Livingston, M., Smoth, J., Buykx, P., & Moayeri, F. (2020). *Investigating the introduction of the alcohol minimum unit price in the Northern Territory*. Geelong, Australia: Deakin University.
- Corbin, J., & Strauss, A. (1990). Grounded Theory research: Procedures, canons and evaluative criteria. *Qualitative Sociology*, 3-21.
- Croxford, S., Emanuel, E., Ibitoye, A., Njoroge, J., Edmundson, C., Bardsley, M., . . . Phipps, E. (2021). Preliminary indications of the burden of COVID-19 among people who inject drugs in England and Northern Ireland and the impact on access to health and harm reduction services. *Public Health*, 8-11.
- Da, B., Im, G., & Schiano, T. (2020). *COVID-19 Hangover: A Rising Tide of Alcohol Use Disorder and Alcohol-Associated Liver Disease*. Hepatology.
- Daly, M., & Robinson, E. (2021). High-Risk Drinking in Midlife Before Versus During the COVID-19 Crisis: Longitudinal Evidence From the United Kingdom. *American Journal of Preventive Medicine*, 294-297.
- Delaney, B. (2020, 04 06). *Drinking in coronavirus isolation: experts warn Australians to monitor their intake*. Retrieved from [The Guardian](#)
- Department of Health. (2008). *150 Years of the Annual Report of the Chief Medical Officer*. England: Department of Health.
- Dewey, C. (2020, 04 27). *'Quarantinis' and beer chugs: Is the pandemic driving us to drink?*. Retrieved from [The Guardian](#)
- Dumas, T., Ellis, W., & Litt, D. (2020). What Does Adolescent Substance Use Look Like During the COVID-19 Pandemic? Examining Changes in Frequency, Social Contexts, and Pandemic-Related Predictors. *Adolescent Health*, 354-361.
- Evans, R. (2017). *Public Health Minimum Price for Alcohol Wales Bill*. Cardiff: Welsh Government.
- Evans, R. (2017, October 23rd). [Written Statement](#) - Public Health (Minimum Price for Alcohol) (Wales) Bill.
- Ferguson, K., Beeston, C., & Giles, L. (2020). *Public attitudes to Minimum Unit Pricing (MUP) for alcohol in Scotland*. Edinburgh: Public Health Scotland.
- Ferguson, K., Giles, L., & Beeston, C. (2021). *Evaluating the impact of Minimum Unit Pricing (MUP) on the price distribution of off-trade alcohol in Scotland*. Edinburgh: Public Health Scotland.

- Flaudias, V., Zerhouni, O., Pereira, B., Cherpitel, C., Boudesseul, J., de Chazeron, I., . . . Llorca. (2021). The Early Impact of the COVID-19 Lockdown on Stress and Addictive Behaviours in an Alcohol-Consuming Student Population in France. *Frontiers in Psychiatry* .
- Ford, J., Myers, F., Burns, J., & Beeston, C. (2020). *The impact of MPA on protecting children and young people from parents' and carers' harmful alcohol consumption: A study of practitioners' views*. Glasgow: Public Health Scotland.
- Fox, S., & Galvani, S. (2020). *Alcohol and domestic abuse in the context of COVID-19 restrictions*. Alcohol Change.
- Garnett, C., Jackson, S., Oldham, B. J., Steptoe, A., & Fancourt, D. (2021). Factors associated with drinking behaviour during COVID-19 social distancing and lockdown among adults in the UK. *Drug and Alcohol Dependence*.
- GDS. (2020, 09). *Global Drug Survey*. Retrieved from GDS COVID-19 Special Edition: [Key Findings Report](#)
- Ghimire, A. (2020). COVID-19 Lockdown effect: surge of alcohol withdrawal cases in emergency department. *Journal of Patan Academy of Health Sciences*, 91-92.
- Ghosh, A., e-Roub, F., Krishnan, N. C., Choudhury, S., & Basu, A. (2021). Can google trends search inform us about the population response and public health impact of abrupt change in alcohol policy? A case study from India during the covid-19 pandemic. *International Journal of Drug Policy*.
- Global Drugs Survey. (2020, June 2). [Global Drug Survey Special Edition on COVID-19](#).
- Graupensperger, S., Fleming, C. B., Jaffe, A. E., Rhew, I., Patrick, M., & Lee, C. (2021). Changes in Young Adults' Alcohol and Marijuana Use, Norms and Motives From Before to During the COVID-19 Pandemic. *Journal of Adolescent Health*, 658-665.
- Green, L., Morgan, L., Azam, S., Evans, L., Parry-Williams, L., Petchey, L., & Bellis, M. (2020). *A Health Impact Assessment of the 'Staying at Home and Social Distancing Policy' in Wales in response to the COVID-19 pandemic*. Public Health Wales.
- Grigoletto, V., Cognigni, M., Agostino Occhipinti, A., Abbracciavento, G., Carrozzi, M., Barbi, E., & Cozzi, G. (2020). Rebound of Severe Alcoholic Intoxications in Adolescents and Young Adults after COVID-19 lockdown. *Adolescent Health*, 727-729.
- Grigoriev, P., & Bobrova, A. (2020). Alcohol control policies and mortality trends in Belarus. *Drug and Alcohol Review* , 805-817.
- Grossman, E., Benjamin-Neelon, S., & Sonnenschein, S. (2020). Alcohol Consumption during the COVID-19 Pandemic: A Cross-Sectional Survey of US Adults. *Environmental Research and Public Health*.
- Gururaj, G., Gautham, M., & Arvind, B. (2021). Alcohol consumption in India: A rising burden and a fractured response. *Drug and Alcohol Review*, 368-384.
- HM Customs & Revenue. (2020, 05 29). [UK Alcohol Duty Statistics](#).

- Hobday, M., Gordon, E., Lensvelt, E., Meuleners, L., Liang, W., & Chikritzhs, T. (2016). The effect of price increases on predicted alcohol purchasing decisions and choice to substitute. *Addiction Research and Theory*, 441-449.
- Holloway, K., May, T., Buhociu, M., Livingston, W., Andy, P., & Madoc-Jones, L. (2019). *Research into the potential for substance switching following the introduction of minimum pricing for alcohol in wales*. Cardiff: Welsh Government.
- Holloway, K., May, T., Buhociu, M., Livingston, W., Perkins, A., & Madoc-Jones, L. (2019). *Research into the potential for substance switching following the introduction of minimum pricing for alcohol in Wales*. Cardiff: Welsh Government .
- Holmes, L. (2020). *Drinking during lockdown: headline findings*. Alcohol Change UK.
- Institute for Government. (2021, March). [Timeline of UK coronavirus lockdowns, March 2020 to March 2021](#).
- Institute of Alcohol Studies. (2020). *Research Report on Consumption - Summary of Public Surveys*. IAS.
- International Network of People who Use Drugs. (2020). *INPUD Online Survey on COVID-19 & People Who Use Drugs (PWUD) Data Report 1*. INPUD.
- Itoshima, H., Shin, J.-h., Takada, D., Morishita, T., Kunisawa, S., & Imanaka, Y. (2021). The impact of the COVID-19 epidemic on hospital admissions for alcohol-related liver disease and pancreatitis in Japan. *Scientific Reports*.
- Jackson, S., Garnett, C., Shahab, L., Oldham, M., & Brown, J. (2020). Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England: an analysis of 2019-20 data. *Addiction*, 1233-1244.
- Jackson, S., Garnett, C., Shahab, L., Oldham, M., & Brown, J. (2020). Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England: an analysis of 2019-20 data. *Addiction*, 1233-1244.
- Jacob, L., Smith, L., Armstrong, N., Yakkundi, A., Barnett, Y., Butler, L., . . . Tully, M. (2021). Alcohol use and mental health during COVID-19 lockdown: A cross-sectional study in a sample of UK adults. *Drug and Alcohol Dependence*.
- Jacob, L., Smith, L., Armstrong, N., Yakkundi, A., Barnett, Y., Butler, L., . . . Tully, M. (2021). Alcohol use and mental health during COVID-19 lockdown: A cross-sectional study in a sample of UK adults. *Drug and Alcohol Dependence*.
- Jiang, H., Livingston, M., Room, R., Callinan, S., Marzan, M., Brennan, A., & Doran, C. (2020). Modelling the effects of alcohol pricing policies on alcohol consumption in subpopulations in Australia. *Addiction*, 1038-1049.
- Johnson, J. (2020, 06 11). *Coronavirus: Drug and alcohol referrals down 57% since lockdown, says charity*. Retrieved from [BBC News](#)
- Julien, J., Ayer, T., Tapper, E., Barbosa, C., Dowd, W., & Chhatwal, J. (2021). Effect of Increased Alcohol Consumption During COVID-19 Pandemic on Alcohol-related Liver Disease: A Modelling Study.

- Karlsson, A., Uprova, J., Price, O., Gibbs, D., Chan, R., Swanton, R., . . . Peacock, A. (2020). *The impact of COVID-19 and associated restrictions on recent alcohol use amongst people who regularly consume drugs in Australia, 2020*. Sydney: National Drug and Alcohol Research Centre.
- Killgore, W., Cloonan, S., Taylor, E., Lucas, D., & Dailey, N. (2021). Alcohol dependence during COVID-19 lockdowns. *Psychiatry Research*.
- Kim, J., Majid, A., Judge, R., Crook, P., Nathwani, R., Selvapatt, N., . . . Lemoine, M. (2020). *Effect of COVID-19 lockdown on alcohol consumption in patients with pre-existing alcohol use disorder*. London: Imperial College London.
- Maggs, J., Cassinat, J., Kelly, B., Mustillo, S., & Whiteman, S. (2021). Parents Who First Allowed Adolescents to Drink Alcohol in a Family Context During Spring 2020 COVID-19 Emergency Shutdowns. *Journal of Adolescent Health*, 816-818.
- Mohr, C., Umemoto, S., Rounds, T., Bouleh, P., & Arpin, S. (2021). Drinking to cope in the COVID-19 Era: an investigation Among College Students. *Studies on Alcohol and Drugs*, 178-187.
- Murray, S. (2020, 05 23). *Covid restrictions make the argument not to bring in minimum alcohol pricing 'even more tenuous'*. Retrieved from [The Journal.ie](https://www.thejournal.ie/covid-restrictions-alcohol-pricing-481111.html):
- Naughton, F., Ward, E., Khondoker, M., Belderson, P., Minihane, A. M., Dainty, J., . . . Notley, C. (2021). Health Behaviour change during the UK COVID-19 lockdown: Findings from the first wave of the C-19 health behaviour and well-being daily tracker study. *British Journal of Health Psychology*, 624-643.
- Neale, J., & West, R. (2015). Guidance for reporting qualitative manuscripts'. *Addiction*, 549-550.
- Neale, J., Miller, P., & West, R. (2014). Reporting quantitative information in qualitative research: guidance for authors and reviewers'. *Addiction*, 175-176.
- Neufeld, M., Lachenmeier, D., Ferreira-Borges, C., & Rehm, J. (2020). Is Alcohol an "Essential Good" During COVID-19? Yes, but Only as a Disinfectant! *Alcoholism*, 1906-1909.
- NHS Health Scotland. (2021). *Public Health Scotland*. Retrieved from Health Scotland.
- Nicolls, E., & Conroy, D. (2021). Possibilities and pitfalls? Moderate drinking and alcohol abstinence at home since the COVID-19 lockdown. *International Journal of Drug Policy*.
- O'Brien, J., Tscharke, B., Bade, R., Chan, G., Gerber, C., Mueller, J., . . . Hall, W. (2021). A Wastewater-based assessment of the impact of a minimum unit price (MUP) on population alcohol consumption in the Northern Territory, Australia. *Addiction*.
- O'Donnell, A., Anderson, P., Jané-Llopis, E., Manthey, J., Kaner, E., & Rehm, J. (2019). Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-2018. *BMJ*.
- Opinium. (2020, June 23). *Alcohol drinkers change habits during coronavirus lockdown*. Retrieved from [Scottish TV](https://www.opinium.com/news/alcohol-drinkers-change-habits-during-coronavirus-lockdown)
- Papp, L., & Kouros, C. (2021). Effect of COVID-19 Disruptions on Young Adults' Affect and Substance Use in Daily Life. *Psychology of Addictive Behaviours*, 391-401.
- Paradis, C. (2020). *Open versus Closed: The Risk Associated with Retail Liquor Store during COVID-19*. Canada: Canadian Centre on Substance Use and Addiction.

- Parna, K. (2020). Alcohol consumption and alcohol policy in Estonia 2000-2017 in the context of Baltic and Nordic countries. *Drug and Alcohol Review*, 797-804.
- Poikolainen, K. (2020). Pternalism and Alcohol Policy. *Drugs and Alcohol Today*, 6-14.
- Pollard, M., Tucker, J., & Green, H. (2020). *Changes in Adult Alcohol Use and Consequences During the Covid-19 Pandemic in the US*. US: JAMA Netowrk.
- Prestigiacomio, C., Liu, M., Plawecki, M., & Cyders, M. (2021). Early Impact of the U.S Covid-19 Pandemic on Drinking Motives and Alcohol Use. *Substance Use and Misuse*, 1383-1386.
- Public Health Development Team. (2014). *Listening to you: Your Health Matters*. Cardiff: Welsh Government.
- Public Health England. (2021). *Monitoring alcohol consumption and harm during the COVID-19 pandemic: summary*. Public Health England.
- Quinn, B., & Kelly, N. (2020, 04 13). *Online support groups for alcoholics on the rise during lockdown*. Retrieved from [The Guardian](#)
- Rehm, J., Killian, C., Ferreira-Borges, C., Jernigan, D., Monteiro, M., Parry, C., . . . Manthey, J. (2020). Alcohol use in times of the COVID-19: Implications for monitoring and policy. *Drug Alcohol Review*, 301-304.
- Richmond Fellowship. (2020, 05). *Three Stages of Pandemic Response*. Retrieved from [Richmond Fellowship](#)
- Robinson, M., Mackay, D., Giles, L., Lewsey, J., Richardson, E., & Beeston, C. (2021). Evaluating the impact of minimum unit pricing (MUP) on off-trade alcohol sales in Scotland: an interrupted time-series study. *Addiction*.
- Rodriguez, L., Litt, D., & Stewart, S. (2021). COVID-19 Psychological and Financial Stress and Their Links to Drinking: A Dyadic Analysis in Romantic Couples. *Psychology of Addictive Behaviours*, 377-390.
- Rosow, I., Bye, E., Moan, I., Killian, C., & Bramness, J. (2021). Changes in alcohol consumption during the COVID-19 Pandemic - Small Change in Total Consumption, but Increase in Proportion of Heavy Drinkers. *Environmental Research and Public Health*.
- Ryerson, N., Wilson, O., Pena, A., Duffy, M., & Bopp, M. (2021). What happens when the party moves home? The effect of the COVID-19 pandemic on U.S. college student alcohol consumption as a function of legal drinking status using longitudinal data. *Behavioural Medicine*.
- Salazar-Fernández, C., Palet, D., Haeger, P., & Mella, F. (2021). COVID-19 Perceived Impact and Psychological Variables as Predictors of Unhealthy Food and Alcohol Consumption Trajectories: The Role of Gender and Living with Children as Moderators. *Environmental Research and Public Health*.
- Salerno, J., Shrader, C., Algarin, A., Lee, J., & Fish, J. (2021). Changes in alcohol use since the onset of COVID-19 are associated with psychological distress among sexual and gender minority university students in the U.S. *Drug and Alcohol Dependence*.

- Sallie, S., Ritou, V., Bowden-Jones, H., & Voon, V. (2020). Assessing international alcohol consumption patterns during isolation from the COVID-19 pandemic using an online survey: highlighting negative emotionality mechanisms. *BMJ*.
- Schmits, E., & Glowacz, F. (2020). Changes in Alcohol Use During the COVID-19 Pandemic: Impact of the Lockdown Conditions and Mental Health Factors. *Journal of Mental Health and Addiction*.
- Scottish Families Affected by Alcohol and Drugs. (2020). *Lockdown and beyond COVID*. SFAD.
- Searby, A., & Burr, D. (2021). The impact of COVID-19 on alcohol and other drug nurses' provision of care: A qualitative descriptive study. *Clinical Nursing*.
- Select Committee. (2017). *The Licensing Act 2003: post-legislative scrutiny*. England: House of Lords.
- Shakespeare, S. (2020, April 08). *Drinking and Alcohol*. Retrieved from [YouGov](#)
- Sharma, A., Sinha, K., & Vandenberg, B. (2017). Pricing as a means of controlling alcohol consumption. *British Medical Bulletin*, 149-158.
- Sherk, A., Stockwell, T., & Callaghan, R. (2018). The effect on emergency department visits of raised alcohol minimum prices in Saskatchewan, Canada. *Drug Alcohol Review*, S357-S365.
- Singh, S., Sharma, P., & Balhara, Y. P. (2020). The impact of nationwide alcohol ban during the COVID-19 lockdown on alcohol use-related internet searches and behaviour in India: An infodemiology study. *Drug and Alcohol Review*.
- Stead, M., Critchlow, N., Eadie, D., Fitzgerald, N., Angus, K., Purves, R., & Angus, C. (2020). *Evaluating the impact of alcohol minimum unit pricing in Scotland: Observational study of small retailers*. Stirling: University of Sterling, Institute for Social Marketing Health.
- Stevley, A., Sasso, A., Alava, M., & Holmes, J. (2021). *Changes in Scotland during the early stages of the COVID-19 pandemic: Descriptive analysis of repeat cross-sectional survey data*. Edinburgh: Public Health Scotland.
- Stockwell, T., Andreasson, S., Cherpitel, C., Chikritzhs, T., Dangardt, F., Holder, H., . . . Sherk, A. (2020). The burden of alcohol on health care during COVID-19. *Drug and Alcohol Review*, 3-7.
- Substance Misuse Policy Team. (2018). *Minimum Unit Pricing for Alcohol*. Cardiff: Welsh Government.
- Szajnoga, D., Klimek-Tulwin, M., & Piekut, A. (2021). COVID-19 lockdown leads to changes in alcohol consumption patterns. Results from the Polish national survey. *Journal of Addictive Diseases*, 215-225.
- Taylor, N., Miller, P., Coomber, K., Livingston, M., Scott, D., Buykx, P., & Chikritzhs, T. (2021). The impact of a minimum unit price on wholesale alcohol supply trends in the Northern Territory, Australia. *Australian and New Zealand Journal of Public Health*.
- Testino, G. (2020). Are Patients with Alcohol Use Disorders at Increased Risk for Covid-19 Infection? *Alcohol and Alcoholism*, 344-346.
- Thomas, C., Menon, G., & Kuttichira, P. (2020). Impact of COVID-19 Pandemic on People with Alcohol Use Disorder in Kerala- An Observation From Thrissur District. *Kerala Journal of Psychiatry*, 165-169.

- Trolldal, B., Landberg, J., & Ramstedt, M. (2021). Changes in the Price of Alcohol and Effect on Youth Drinking and in Different Socio-Economic Groups. *Alcohol and Alcoholism*, 475-481.
- UK Parliament. (2015). *A minimum price for alcohol*. Retrieved from [Parliament UK](#)
- University of East Anglia. (2021). *COVID-19 Wellbeing Tracker Study*. Norwich: UEA.
- Ustun, G. (2020). Determining depression and related factors in a society affected by COVID-19 pandemic. *International Journal of Social Psychiatry*, 54-63.
- Valente, J., Sohi, I., Garcia-Cerde, R., Monteiro, M., & Sanchez, Z. (2021). What is associated with the increased frequency of heavy episodic drinking during the COVID-19 pandemic? Data from the PAHO regional web-based survey. *Drug and Alcohol Dependence*.
- Vandenberg, B., & Sharma, A. (2016). Are Alcohol Taxation and Pricing Policies Regressive? Product-Level Effects of a Specific Tax and a Minimum Unit Price for Alcohol. *Alcohol*, 493-502.
- Vaughan, G. (2019, May 29). [Written Statement: Welsh Government Update: Minimum Unit Pricing for Alcohol](#).
- Villanueva, V., Motos, P., Isorna, M., Villanueva, V., Blay, P., & Vazquez-Martinez, A. (2021). Impact of confinement measures on the COVID-19 pandemic on alcohol risk consumption. *Spanish Journal of Public Health*, e1-13.
- Ward, R. M., Riordan, B., Merrill, J., & Raubenheimer, J. (2020). Describing the impact of the COVID-19 pandemic on alcohol-induced blackout tweets. *Drug and Alcohol Review*.
- Weerakoon, S., Jetelina, K., & Knell, G. (2021). Longer time spent at home during COVID-19 pandemic is associated with binge drinking among US adults. *American Journal of Drug and Alcohol Abuse*, 98-106.
- Welsh Government. (2014). *Substance Misuse Treatment Framework:Service User Involvement*. Cardiff: Welsh Government.
- Welsh Government. (2019). *Consultation on the Proposed Level of the Minimum Unit Price for Alcohol*. Cardiff: Welsh Government .
- Welsh Government. (2019, November 13). [Minimum Unit Pricing for Alcohol: resources for retailers](#).
- Welsh Government. (2020). *Guidance on the Implementation of Minimum Pricing for Alcohol in Wales*. Cardiff: Welsh Government .
- Welsh Government`. (2014, April 2). *Consultation on the Draft Public Health (Minimum Price for Alcohol) (Wales) Bill*. Retrieved from [Wales NHS](#)
- Westons Cider Makers. (2019). *Westons Cider Report*. Ledbury: Westons Cider.
- White, H., Stevens, A., Hayes, K., & Jackson, K. (2020). Changes in Alcohol Consumption Among College Students Due to COVID-19: Effects of Campus Closure and Residential Change. *Journal of Studies on Alcohol and Drugs*.
- WHO. (2014). *European status report on alcohol and health 2014*. Europe: World Health Organisation.
- WHO. (2021). *Alcohol pricing in the WHO Eurpoean Region*. Europe: World Health Organisation.

- Wincup, E. (2017). *Criminological Research: Understanding Qualitative Methods*. London: Sage.
- Wisk, L., Buhr, R., & Geffen, D. (2021). Impacts of COVID-19 on Health and Health Behaviours of Young Adults. *Journal of Adolescent Health*, s10-s19.
- Witchells, C. (2020, 05 08). *Alcohol can make coronavirus worse - so why was it treated as essential in New Zealand's Lockdown?* Retrieved from [The Conversation](#)
- Woodhouse, J. (2020). *Alcohol: minimum pricing* . House of Commons.
- Woolfson, D. (2020, 03 30). *Coronavirus: crisis drives £160m additional spend on supermarket booze*. Retrieved from [The Grocer](#)
- Xhurxhi, I. (2020). The early impact of Scotland's minimum unit pricing policy on alcohol prices and sales. *Health Economics*, 1637-1656.
- Yazdi, K., Fuchs-Leitner, I., Rosenleitner, J., & Gerstgrasser, N. (2020). Impact of the COVID-19 Pandemic on Patients with Alcohol Use Disorder and Associated Risk Factors for Relapse. *Frontiers in Psychiatry*.
- Zasimova, L., & Kolosnitsyna, M. (2020). Exploring the relationship between drinking preferences and recorded and unrecorded alcohol consumption in Russian regions in 2010-2016. *Drugs Policy*.

14. Appendix

Appendix 1 Interview schedule

Evaluation of the Minimum Pricing for Alcohol in Wales Impact on the wider population of drinkers

Introduction and preamble

My name is [interviewer name] and I am part of a team of researchers that have been commissioned by Welsh Government to evaluate the impact of Minimum Pricing for Alcohol in Wales. Thank you for agreeing to be interviewed. Please can I check that you have read the privacy notice and information sheet and also that you consent to being interviewed? The interview will take approximately 45 minutes and will be based on a series of mostly open questions where you will be asked to tell us about your drinking patterns since MPA was introduced back in March and subsequently during lockdown. Please try to answer as fully as possible. After the interview I will send you by Royal Mail a £10 Argos voucher. I will ask you to confirm that the postal address that I have for you in my records is correct. I hope that this is ok?

Do remember that your participation is entirely voluntary and that you are free to skip any questions or stop the interview at any point. Your identity will be kept confidential and your responses will be anonymised in any reports or articles that we write. Please can I check that you are still happy for me to record the interview on this digital recorder? Do be careful not to mention any names while the recorder is on, but don't worry if you do as we will delete them from the written transcript as soon as it has been transcribed. Thanks again for helping us with this important project.

Theme	Question	Prompts
Socio-demographic characteristics <i>You provided lots of information about your socio-demographic characteristics in the first interview. Thank you for doing that.</i>	1. Please may I ask you first of all whether anything has changed since we spoke at the beginning of the year? I have a list of things to check with you:	a. Local Authority Area b. Employment (e.g. type of job, hours worked, furloughed) c. Marital status d. Housing status e. Qualifications f. Children aged 17 and under living at home g. Benefits h. Income category
	2. How well would you say that you are managing financially these days?	<ul style="list-style-type: none"> • Very well • Quite well

Theme	Question	Prompts
		<ul style="list-style-type: none"> • Neither managing nor not managing • Not well • Not at all well
	<p>3. And, would you mind answering three questions about your quality of life at the moment, please?</p> <p>On a scale from 0-10, overall:</p>	<ul style="list-style-type: none"> • How satisfied are you with your life • To what extent do you feel that the things you do in your life are worthwhile • How happy did you feel yesterday • How anxious did you feel yesterday
Current drinking pattern	<p><i>You may recall in the first interview that we asked you to complete an online survey prior to the interview. Thanks for doing that! We have not asked you to do that again for this additional round of interviews. But, we would still like to ask you the key questions about your general pattern of alcohol use over the past year so that we can see if anything has changed. We hope that this is ok with you?</i></p>	Administer AUDIT questions (see end of schedule)
	<p>4. Staying on the same subject of current drinking patterns, please could you describe a typical week (from within the last month or two) in terms of what type of alcohol you currently drink, what brands, how much, how often, where you tend to consume it.</p>	<ul style="list-style-type: none"> • What type of alcohol • What brands • How much • How often • Where purchase • Where consume
Pre-implementation of MPA (March 2020)	<p>5. In the first interview we asked if you were planning to do anything to prepare for the implementation of MPA. Did you, in fact, end up doing anything to prepare for it?</p>	<ul style="list-style-type: none"> • Did you stockpile • Did you save up any money • Did you change your drinking patterns in preparation (e.g. quantity and/or type of alcohol) • Did you seek treatment or some kind of professional support • Did you start using alternative substances • Did you do anything else

Theme	Question	Prompts
	6. In the period after we spoke and before MPA was implemented, did you notice any publicity about MPA?	<ul style="list-style-type: none"> • When did you notice this • What did you see • Where was this • What did it say • What did you think/feel about it
Post-implementation – awareness of MPA	7. Thinking back to March of this year, can you recall when you first noticed that MPA had been implemented?	<ul style="list-style-type: none"> • What did you notice (specific details, vague details, nothing) • How soon after implementation did you notice this • Where did you notice this • If nothing, why do you think you didn't notice? (e.g. not interested, not relevant, overshadowed by COVID)
	8. Thinking about the alcohol products that you (or people you know) drink, since March have you noticed any significant changes in the price of alcohol?	<ul style="list-style-type: none"> • If yes, please describe the changes in terms of what products, sizes, etc.
	9. Have you noticed any products being no longer available?	<ul style="list-style-type: none"> • What product(s) (type, brand, sizes) • Everywhere or just one location? • Short-lived or continuing?
Post-implementation – impact on drinking patterns	10. Since we spoke earlier this year, has your drinking pattern changed in any way?	<ul style="list-style-type: none"> • Quantities • Types of alcohol • Brands • Drinking out more/less/same • When did the changes occur? • Ongoing pattern or have you returned to previous patterns?
	11. Why would you say these changes occurred?	<ul style="list-style-type: none"> • MPA • COVID-19 and lockdown

Theme	Question	Prompts
		<ul style="list-style-type: none"> • Other factors
Post-implementation – changes in purchasing patterns	12. How much are you currently spending on alcohol each week?	
	13. How does the amount of money that you are currently spending on alcohol each week compare to the amount that you spent before March 2020?	<p>If spending <i>more/less</i>, is this related to:</p> <ul style="list-style-type: none"> • MPA • COVID-19 • Other factors
	14. If spending <i>more</i> , how are you funding this?	<ul style="list-style-type: none"> • Have you absorbed the price increase into your existing budgets • Have you shifted around your finances to free up money (probe for details) • Have you borrowed money (probe from whom, how often, how much) • Have you committed any/more crimes (probe for type of crime, how often) • Have you used some other method?
	15. Since March 2020, have you changed where and how you purchase alcohol? Please describe the changes and explain why you made those changes.	<ul style="list-style-type: none"> • MPA • COVID-19 • Other factors
Use of other substances	16. Since March, has there been a change in your use of other substances (i.e. illegal drugs, prescription drugs obtained legally, prescription drugs obtained illegally). If yes, please describe the changes.	<p>If yes, why did you change and were these changes related to:</p> <ul style="list-style-type: none"> • MPA • COVID-19 • Other factors

Theme	Question	Prompts
Responses to MPA, COVID-19 and other factors	17. Have you sought any support for your drinking since March 2020? If yes, who from (professional/personal). Was the reason related to:	<ul style="list-style-type: none"> • MPA • COVID-19 • Other factors
	18. Has MPA had an impact on your life more generally?	
Final comments	19. Is there anything else that you would like to tell us about MPA, COVID-19 or alcohol consumption?	So far we have asked you about your direct experiences. Would you like to comment more generally about the impact on others? Please provide examples where possible.

Thank you very much for your time.

[Before switching off the recorder, check that they are still happy to continue as part of the study and that it is ok to keep their contact details. After switching off the recorder, check that you have the correct postal address]

Appendix 2 AUDIT questions

Questions	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times per month	2 to 3 times per week	4 times or more per week	
How many units of alcohol do you drink on a typical day when you are drinking?	0 to 2	3 to 4	5 to 6	7 to 9	10 or more	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you failed to do what was normally expected from you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	

Appendix 3 Impact of COVID-19 on drinking and related behaviours – a review of the news media and grey literature

This appendix provides an additional review of published grey literature and media reports to explore what happened to alcohol use and purchasing since MPA was implemented in March 2020, and any related COVID-19 considerations. It has been used to help the research team contextualise challenge and confirm the other primary and secondary data findings.

In doing so, the material is focussed in two distinct time frames: (1) the first three months of MPA and the initial lockdown; and (2) what might be considered the more established patterns of behaviour in the period up until the time of writing. The section begins with a tabular summary of the key timeline events and possible implications on drinking-related behaviours. It then moves on to unpick what is known of the reported effect and whether the implications have materialised and/or a firm picture has been established.

Timeline summary

The information presented in Table 3.1 provides details of the key COVID-19 related events occurring in the UK, with a particular focus on Wales. The information is presented in relation to several distinct periods including the pre-lockdown period and the three subsequent lockdown and relaxation periods. The main body of the table focuses on key events (e.g. 'MPA comes into force in Wales) and provides an indication of the 'possible' impact of the key events on alcohol use and purchasing (e.g. potential stockpiling and perceptions of a possible spike in unplanned alcohol withdrawal). Within the table, the 'possible' impacts are speculative. However, research literature presented in the main body of the report and Appendices 4 and 5 (and summarised in the Technical Report³⁷) help assess whether or not that impact has indeed materialised.

The key points to note from Table 3.1 are that there were three lockdown periods in 2020 (commencing on March 20th, October 23rd, and 4th December). During these periods, hospitality venues (including pubs and restaurants) were ordered to close meaning that the on-licence supply of alcohol was prohibited. Off licences, however, were deemed to be 'essential' suppliers at an early stage in the pandemic, and these remained open throughout the three lockdown periods.

³⁷ The Technical Report is available in English on request.

Table 3.1 Timeline of key events and possible impacts of key events on alcohol use and purchasing

Phases of COVID restrictions	Dates	Key events	Possible impacts of key events on alcohol use and purchasing
Pre-lockdown	March 2 nd 2020	MPA comes into force in Wales	Potential stockpiling in the weeks leading up to implementation. Perception of possibility of mass unplanned alcohol withdrawal or switching to other (e.g. illegal) substances.
Lockdown 1	March 20 th 2020	Welsh Government orders pub and restaurant closure	Potential increase in off sales to compensate for the drop in on sales.
	March 25 th 2020	Off licences deemed as 'essential' suppliers	Possible marker of 'industry' influence as well as the importance and societal value of alcohol
	April-June 2020	First UK Lockdown runs for two months, with an easing through to June	Potential increase in consumption (coping with the situation, isolation, opportunity/time, etc)
Relaxation 1	July 13 th 2020	Pubs and restaurants re-open in Wales	Binge, post restriction spike in use and purchasing
	July-September 2020	Largely unrestricted period and return to norms. COVID numbers begin to rise in September. Introduction of tier system and local lockdowns.	Summer/tourist spike in sales
	August 2020	'Eat out to help out' scheme runs from 3rd-31st	Increased on-sales with meals.
Lockdown 2	October-November 2020	Wales Firebreak Lockdown Oct 23 rd – Nov 9 th .	Potential increase in consumption (as above)
Relaxation 2	November-December 2020	Christmas opened up and then closed down Vaccine rollout begins	Potential alcohol/normal increase in purchasing for social gathering (subsequently consumed in household)
Lockdown 3	December 4 th 2020	Re introduction of on-sales alcohol ban in Wales Pubs, bars, restaurants and cafes to close at 6pm (04/12)	Maintenance of off-sales, despite post-Christmas/'dry January' Spike in off-sales to compensate no pre-Christmas social gatherings
	December 2020 - March 2021	Lockdown extended, Vaccine rollout extended, positive tests and death numbers rise across UK	Significant increase in consumption - extended lockdown fatigue, combined with winter gloom etc, increase in mental health concerns (and self-medication)
	March 12 th 2021	Very gently easing of Lockdown begins	Slow possible return to norms
Relaxation 3	April 12 th 2021	Outdoor hospitality opens in England	
	17 th May 2021	Indoor hospitality opens in Wales	

Lockdown 1 - early COVID experiences

This section focusses on the first ‘stay at home’ lockdown period, which was announced on 23rd March 2020 and legally came into force three days later on 26th March 2020³⁸. To provide some context in relation to alcohol use and purchasing, this was the week when hospitality venues (including those with on-licences) were first ordered to close (20th March 2020) and off-licences were defined as ‘essential’ suppliers and permitted to stay open (25th March 2020).

The data sources on which this review is based include 73 COVID-19-related and 54 MPA-related items. The sources were collated over a 12-month period by one member of the research team (WL) and were identified through a variety of methods, including:

- Daily research and academic activities (e.g. through email exchanges, telephone/online conversations, observations of news programmes/websites and social media).
- News alerts from subscriber services (e.g. Alcohol Policy, DrugWise Daily, Google, Institute of Alcohol Studies).
- Repeated structured Google News searches conducted by WL and set with specific date parameters.

It is important to acknowledge that the sources included in the review are predominantly ‘grey’ and that few were published in peer-reviewed books or journals. This is likely to be due to the narrow timeframe involved and the lengthy period that it usually takes to publish peer-reviewed research papers.

Consumption

The headline message appears to be that early COVID-19 and first lockdown experiences resulted in a mixed picture of drinking patterns and changes in consumption. This impact on consumption appears in three broad groupings:

1. The largest of these groups, approximately half of the population, were those who made no changes in their drinking^{39,40}. Likely explanations for unchanging lifestyles include their previously moderate drinking status and/or the fact that they were not regular pub drinkers prior to lockdown. Demand for alcohol, despite pub and restaurant closure, was identified as predominantly stable⁴¹.
2. The second largest group, approximately one-third of the population, were those who reduced their alcohol consumption. According to most reports, those drinking less exceeded the number drinking more^{42,43}. Those drinking less included those who stopped drinking and/or those taking active steps in reduction. Drink free days and buying less alcohol appeared as the most common mechanisms to restrict consumption. Such drops in consumption might be expected as many of the activities associated with drinking are

³⁸ [Timeline of UK coronavirus lockdowns - Institute for Government](#)

³⁹ Global Drugs Survey (GDS) (02-06-2020) [Interim Report](#) – 40,000 survey completions

⁴⁰ Scottish TV (23-06-2020) [Report on Survey - 576 Scottish adults](#), carried out by Opinion and commissioned by health charities Alcohol Focus Scotland and Alcohol Change UK.

⁴¹ Shakespeare, S (08-04-2020) [Blog – YouGov](#) – How are British drinking habits shifting under lockdown?

⁴² Canadian Centre on Substance Use and Addiction (CCSA) (05-2020) [Boredom and Stress Drives Increased Alcohol Consumption during COVID-19: NANOS Poll Summary Report](#)

⁴³ Institute of Alcohol Studies (10-06-2020) [Research Report on Consumption – summary of public surveys](#)

social gatherings, which were closed down with the onset of COVID-19. In practice, it was not just pubs and restaurants that were closed, but also sporting events, weddings, funerals, etc⁴⁴. In addition, reduced consumption is to some extent predictable during a pandemic due to the associated difficulties of affordability and physical availability⁴⁵.

3. Finally, between a fifth and a third of the UK population were reported to be drinking more than before lockdown, with estimates averaging between 20-25% of the population. A large number of potential and reported factors were repeatedly suggested as leading to increased use: anxiety, boredom, debt, extended vacation feelings, fear of death, isolation, job loss, managing work, physical symptoms of withdrawal, opportunity (spare time), relationship difficulties, relaxation, social isolation, sleeping problems, stress relief⁴⁶ (see also footnotes 36, 41 and 42). Many reports expressed concern about not only immediate harm and vulnerability, but the fear of it developing into learned behaviour that might be maintained after lockdown leading to long-term damage to health. It was also suggested that UK drinkers were drinking earlier in the day than those from other countries.

It is important that readers interpret the findings from these early reports with caution for several reasons. First, their identification of core and approximate trends, but not exact findings or matching numbers, is not surprising as the surveys used different, rapid and not exactly comparable measures among different populations. Second, in some reportage, the figures were extrapolated to give whole population figures yet there was often insufficient detail of sampling methods to validate the generalisations. Third, these early reports rarely concerned themselves with specific groups instead focusing primarily on whole populations.

Purchasing

Early surges in sales figures were commonly reported (e.g. 22% increase in alcohol sales in supermarkets and corner shops in the UK in March⁴⁷; 31% in March in Wales⁴⁸; and, an increase of £160m on supermarket alcohol in the first three weeks of March, UK⁴⁹). It was normal to have these spikes connected with either possible stockpiling or displaced on-sale spending. These increases in off-sales, did not necessarily equate to any overall population increase in purchasing (i.e. they did not fully offset against what would have been spent in pubs and restaurants⁵⁰). Connectedly to closure in pubs – was a significant drop in overall beer sales. Following lockdown, an increase in use of delivery services and online sales was frequently reported⁵¹.

Holloway et al. (2019) reported that cross-border shopping was a possible consequence of introducing MPA in Wales but not England. It is therefore important to note that the imposition of lockdown across the UK, quickly removed the opportunity for people in Wales to shop for cheaper alcohol in England and reinforced the devolution and price differential across the two nations.

⁴⁴ Biddle, N.; Edwards, B.; Gray, M. and Sollis, K. (10-06-2020) Australia National University (Centre for Social Research and Methods) [Research report - Alcohol consumption during the COVID19 period: May 2020](#).

⁴⁵ Rehm, J., Kilian, C., Ferreira-Borges, C., Jernigan, D., Monteiro, M., Parry, C.D.H., Sanchez, Z.M. and Manthey, J. (2020), [Alcohol use in times of the COVID 19: Implications for monitoring and policy](#). Drug Alcohol Rev., 39: 301-304. doi:10.1111/dar.13074

⁴⁶ Holmes, L. (b) (16-04-2020) [Blog Alcohol Change UK](#) – reporting on own agency commissioned research.

⁴⁷ BBC (Business news) (10-04-2020) [Report on 'Stockpiling'](#).

⁴⁸ Lewis, T. (28-04-2020) [BBC Wales report on the Welsh aspects of Alcohol Change UK report](#).

⁴⁹ Woolfson, D. (30-03-2020) Article in [The Grocer – increased sales](#)

⁵⁰ HM Customs & Revenue, (29-05-2020) [UK Alcohol Duty Statistics](#) January to April 2020 update

⁵¹ Chick, J. (13-05-2020) Editorial - Chick J. (2020). [Alcohol and COVID-19](#). Alcohol and alcoholism (Oxford, Oxfordshire), 55(4), 341–342.

For those who mix alcohol consumption and purchasing with illicit and illegal drugs, then COVID-19 also impacted heavily on drug use and markets (increased prices and restricted supply), with the net result of more switching behaviour between substances, and possibly increased vulnerability⁵².

Drinking behaviour

Some changes in drink-related behaviours were reported. This included the arrival or increase in on-line drinking events such as: virtual cocktail hours, Zoom Parties, Instagram posts, and virtual drinking games. It was suggested in several reports that disguising drinking behaviour/effects was achieved more easily when people were working from home. COVID-19, and notably lockdown, was argued as having seen a shift of alcohol-related harms away from street-related and bar injuries and to health concerns of excessive home drinking^{53,54}.

Domestic Abuse

The relationship between heightened alcohol use and domestic abuse (including violence) is well established. A significant number of sources highlighted that COVID-19 pressures, notably lockdown, were likely to increase the instances of alcohol use and/or domestic abuse^{55,56,57}.

Vulnerability

It was noted in several reports that heavy and/or dependent drinkers have poorer (undermined) health and depressed immune systems, which increases their vulnerability to COVID-19^{58,59} (see also footnotes 48 and 50). It was further suggested that social isolation made individuals more vulnerable and at risk of acute withdrawal and/or overdoses. An increase in the number of days of drinking rather than the volume consumed on any given day was also noted among those: with a physical high-risk health condition for COVID-19, living in a high deprivation area, and those with a self-reported mental health issue.⁶⁰

Support

There was a suggestion that COVID-19 and associated lockdown impacted on people's ability to connect with normal peer support networks⁶¹. However, there was a reported increase in demand for and move to on-line peer to peer support (e.g. Alcohol Anonymous, SMART

⁵² The International Network of People Who Use Drugs (06-2020). [Survey report](#).

⁵³ Delaney, B. (06-04-2020) Article in the Guardian - [experts warn Australians to monitor their intake](#)

⁵⁴ Dewey, C. (27-04-2020) Article in Guardian - [exploring is pandemic driving people to drink?](#)

⁵⁵ Colbert, S., Wilkinson, C., Thornton, L., & Richmond, R. (2020). [COVID-19 and alcohol in Australia: Industry changes and public health impacts](#). Drug and alcohol review, 39(5), 435–440.

⁵⁶ Fox, S. and Galvani, S. (01-04-2020) Briefing: [Alcohol and domestic abuse in the context of COVID-19 restrictions](#). (MMU, Alcohol Change UK and Adam)

⁵⁷ Green, L.; Morgan, L.; Azam, S.; Evans, L.; Parry-Williams, L.; Petchey, L & Bellis, M.A.(06-2020) Report for Public Health Wales – [Health Impact of Staying at Home](#).

⁵⁸ Testino G. (2020). [Are Patients With Alcohol Use Disorders at Increased Risk for COVID-19 Infection?](#). Alcohol and alcoholism (Oxford, Oxfordshire), 55(4), 344–346.

⁵⁹ - Da, B.L., Im, G.Y. and Schiano, T.D. (2020), COVID-19 Hangover: [A Rising Tide of Alcohol Use Disorder and Alcohol-Associated Liver Disease](#). Hepatology. Accepted Author Manuscript.

⁶⁰ Naughton, F., Ward, E., Khondoker, M., Belderson, P., Marie Minihane, A., Dainty, J., Hanson, S., Holland, R., Brown, T. and Notley, C. (2021), [Health behaviour change during the UK COVID-19 lockdown: Findings from the first wave of the C-19 health behaviour and well-being daily tracker study](#). Br J Health Psychol.

⁶¹ Johnson, J. (11-06-2020) [BBC report on Kaleidoscope agency and drop in referrals](#).

Recovery) and, in addition, notions of the wider service provider sector adapting rapidly and well to the changing environment⁶². More generally, a mixed picture was reported, with concerns on the one hand about exclusion through the need for internet access and IT skills and on the other, inclusion for those not normally accessing service or needing anonymity. There were reports of both drops and increases in referrals to services. Additionally, there were suggestions that perhaps the NHS was forced to prioritise its service and personnel away from alcohol services, a de facto cut in or minimisation of provision.

A good number of the articles/items provided links to a range of organisations offering on-line messages aimed at harm reduction and support. These often included links to the same sources, who were (are) providing factsheets, hubs, links and practical (clinical) guidance. Others suggested that COVID-19 presented an opportunity to promote health messages about limiting alcohol use.

Retail and Industry

Lockdown was accompanied by a closure of hospitality and a banning of on-sales of alcohol, which resulted in the disposal of a lot of beer. Reporting also suggested that for some big producers that they suspended significant capital outlay on product promotion campaigns with on-sale, and rather switched to promoting products design for off-sale (see footnote 52). However, alcohol continued to be readily available through off-sales, and indeed off-licences were deemed 'essential'. This illustrated that alcohol is 'no ordinary commodity' and the need to meet the demands of business, possibly over health⁶³, with some suggestions of active industry lobbying. Some commentators expressed concern that alcohol should have been treated as a discretionary rather than essential product, including arguments that consumption of alcohol is a choice rather than right. Where MPA does not yet exist (i.e. England or Ireland) retailers (industry) have been involved in significant price wars for selling alcohol as cheaply as possible to maximise the off-sales market during lockdown and prohibition of on-sales⁶⁴.

Policy

Policy responses appear to have struggled in the tension between that of health protection (lockdown, including hospitality sector restrictions) and supporting business to survive (rapid easing of restriction, including allowing pubs and restaurants to re-open). The latter including the aforementioned denoting of off-licences as 'essential', and a relaxing or changing in legislation, allowing for restaurants and pubs to sell 'takeaway' or 'alcohol to go' – creating revenue, helping business. Closing down 'sales' and bans were identified as not being without risks including increases in: unplanned alcohol withdrawal, levels of anxiety or stress and stockpiling⁶⁵. Preoccupations with COVID-19 were said to have contributed to the delay of implementation of MPA in Ireland, and the Irish Government's decision to wait for introduction into NI, to avoid cross border purchasing issues⁶⁶.

⁶² Quinn, B & Kelly, N. (13-04-2020) Article in Guardian – [reporting in increase in AA on-line](#)

⁶³ Witchells, C. (08-05-2020) article in [The Conversation](#) – exploring essentiality of Alcohol, focus on NZ.

⁶⁴ Murray, S. (23-05-2020) Article in Ireland Journal – [COVID-19 crisis suggesting call for implementation of MPA](#)

⁶⁵ Paradis, C. (April 2020) [Open versus Closed: The Risks Associated with Retail Liquor Stores during COVID-19](#). Canada.

⁶⁶ Murray, S. (23-05-2020) Article in Ireland Journal – [COVID-19 crisis suggesting call for implementation of MPA](#)

July 2020 onwards, further established COVID experiences

After the initial lockdown period, the next twelve months, as highlighted above, can be described as the extended COVID-19 experience and a mixture of phases in and out of lockdown and relaxation, with accompanying periods of pubs and restaurants being open and then closed again.

This part of the review is based on a smaller number of items (as we begun, concentrated and relied more consistently on structured reviews of academic material, i.e. as in Chapters 3 and 4). The methods for locating these sources were the same as those used in stage 1 of this additional review and included identification through daily research activities, structured searches of Google News and through daily alerts from specific subscriber services. Inevitably, given the longer timeframe, there became more emphasis on longer-term research and academic outputs. It is important to note, however, that many studies looking at the longer-term effects are yet to fully report at the time of writing (e.g. studies by researchers at the University of East Anglia or Kings College London⁶⁷).

What reporting there is in this period highlights many of the same thematic messages of the initial period. This included the same mixed accounts of consumption changes (i.e. decreases, increases and no changes), with explanations focusing on either increased personal difficulties, pressures of lockdown or lack of social drinking opportunities^{68,69,70,71}. However, while mixed accounts were often reported, there was some suggestion that as the COVID-19 'year' became longer and with subsequent lockdowns, that a greater number of people within the general population had increased their drinking⁷². Increased drinking was also noted among certain populations, including high-risk drinkers⁷³. Explanations for this included increases in stress and anxiety, changing work and leisure patterns, and a reduction in available support – including access to formal services and informal social connections. Interestingly, lack of access to services was linked by some to an increase in unsupported reductions in drinking⁷⁴. However, reports of an increase in demand for treatment and support services were also noted.

Some interpreted the 'stay at home' COVID-19 messages as an indication of home being a place of safety and security. While this may be true for the majority, being confined to home presents a risk for some drinkers as well as those living with them. Indeed, for family members, extended periods of lockdown worsened the experience of some harms. Scottish Families Affected by Alcohol and Drugs reported that 2020 had seen over a 100% increase in contacts about alcohol use⁷⁵. In some instances, this involved the bringing of alcohol consumption into

⁶⁷ [COVID-19 Wellbeing Study](#)

⁶⁸ COPE Study (March 2021) [update COVID-19 UK Public Experiences](#).

⁶⁹ Rehm, J., Kilian, C., Ferreira-Borges, C., Jernigan, D., Monteiro, M., Parry, C.D.H., Sanchez, Z.M. and Manthey, J. (2020), [Alcohol use in times of the COVID 19: Implications for monitoring and policy](#). Drug Alcohol Rev., 39: 301-304.

⁷⁰ Jacob, L et al (2021) [Alcohol use and mental health during COVID-19 lockdown: A cross-sectional study in a sample of UK adults](#), Drug and Alcohol Dependence, 219: 108488

⁷¹ Killgore, W, S. Cloonan, S, E. Taylor, E, C.; Lucas, D, a and Dailey, N.S. (2021) [Alcohol dependence during COVID-19 lockdowns](#), Psychiatry Research, Volume 296.

⁷² Global Drug Survey (September 2020) [COVID-19 Special Edition: Key Findings Report](#)

⁷³ Jackson, S. E., Garnett, C., Shahab, L., Oldham, M., and Brown, J. (2020) [Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England](#): an analysis of 2019–20 data. Addiction,

⁷⁴ Jackson, S. E., Garnett, C., Shahab, L., Oldham, M., and Brown, J. (2020) [Association of the COVID-19 lockdown with smoking, drinking and attempts to quit in England](#): an analysis of 2019–20 data. Addiction,

⁷⁵ Scottish Families Affected by Alcohol and Drugs. (December 2020) [Lockdown and beyond a COVID](#). Insights Report.

the home, where it previously took place outside. There were reports of increase in concern for safety or instances of abuse. Additionally, interruptions in support services also affected those provided to family members. But, perhaps most significantly were the reported a) decline in nearly 50% of family members' mental health and b) the lack of respite bought by 'stay at home' lockdowns (i.e. the lack of a chance to escape for exercise or to attend social support networks).

Of specific note for Wales was a collaborative research project undertaken by a number of Welsh (alcohol and drug) agencies and academics, exploring lessons learned from COVID-19 for substance misuse services. The research team produced three reports offering the perspectives of service users, frontline staff and senior managers/decision-makers⁷⁶. The following key messages were highlighted:

- Nearly 75% of individuals experience increased mental health pressures from COVID-19 pressures and during 'lockdowns'
- (Consistent with above) large numbers tried to cut down drinking without formal support and increased negative impacts on family members
- Significant maintenance of contact with support agencies, and through a shift to on-line support methods.
- But also, substantive numbers choosing not to access alternatives to traditional face to face support
- An alcohol and drug work force that felt well supported in and successfully responded to changes in methods (skills for) working.
- The need and success of agencies demonstrating flexibility and supporting a range of critical relationships.
- The importance of external partnerships to support service delivery and adaptation.
- The nimbleness and flexibility of the third sector (unlike the statutory sector).

In terms of policy, academic arguments reinforced the role that alcohol public health measures like MPA could play in reducing demands on health and social services, at the very time they were experiencing acute pandemic pressures⁷⁷

Wider considerations

It is possible to consider some wide messages of any COVID-19/MPA relationship, from this additional inquiry. The reporting in Welsh and other UK media on MPA, and any subsequent awareness raising, was significantly impacted by COVID-19. Leading up to implementation, media reporting items on MPA became significantly more visible from 17th February 2020 when the formal publicity campaign was launched. Indeed, there was a three-fold increase in the 16 days prior to implementation. The coverage was then sustained from implementation (including significant news coverage on the day of implementation 2nd March 2020) through until 18th March, by which time COVID-19 and an impending UK wide lockdown started to consume the agenda.

One of the pre implementation concerns of MPA was about the imposition by government on personal choice (i.e. nanny state) about the nature of pricing alcohol and determining health behaviours. In many ways, this appears to have become insignificant in comparison to the imposition by the state in relation to COVID-19 and lockdown-related measures. Even where

⁷⁶ BAROD et al (2021) [Lessons from COVID-19 for substance misuse services](#): three reports

⁷⁷ Stockwell, T., Andreasson, S., Cherpitel, C., Chikritzhs, T., Dangardt, F., Holder, H., Naimi, T. and Sherk, A. (2021), [The burden of alcohol on health care during COVID-19](#). Drug Alcohol Rev., 40: 3-7.

pubs and restaurants have re-opened within periods of relaxation, this has not included late night opening or nightclubs. This is likely to have had a significant impact on a reduction in street drink-related violence and arrests⁷⁸. Similarly, the demand from alcohol placed on A&E from alcohol-related matters is also likely to have decreased, although here there is also the wider sense of A&E being avoided because of COVID-19 (ibid).

Going forward COVID-19, and its subsequent media coverage, might also have normalised the experiences for Welsh people that the Welsh Government does things differently to England, and/or in the interests of Welsh people rather than business. This might serve to increase the acceptance of MPA and other measures from the Welsh Government, even where England does not adopt such.

Conclusion

The COVID-19 pandemic and associated lockdowns have disrupted daily life and become a preoccupation of individuals, governments and society at large. As such, its impact will need to be factored into the ongoing evaluation of MPA to help understand patterns of alcohol consumption and related behaviours over the past 12 months. This initial scoping exercise has begun to anticipate that the interaction between COVID-19 and MPA on alcohol consumption and related harm will be complex and challenging to disentangle. The wider report has begun to do this. This appendix has contributed to this process by reviewing reports and articles that link patterns of alcohol consumption with COVID-19 and/or MPA.

The headline message of this appendix, is of reports highlighting mixed responses to COVID-19 and MPA. With the accounts suggesting for the majority that drinking patterns of consumption and purchase remained relatively unchanged, they also highlighted smaller but significant populations with decreases/increases in consumption and associated changes in behaviour. Thus, despite some media reporting of increased drinking, any increase in off-sales of alcohol does not appear to have compensated for the large (enforced) drop in on-sales of alcohol due to pub and restaurant closures. Generally, three distinct consumption patterns have been identified, including: (1) drinking more, (2) drinking the same or (3) drinking less.

While the reporting suggests that COVID-19 has led to an increase in drinking for approximately one-quarter of the population, alcohol consumption has remained unchanged among roughly half of the population and reduced within about one-third⁷⁹. Critically, then, there is evidence of both negative and positive consequences, depending largely on the population of interest (i.e. increases were reported mainly among those whom were already higher than average consumers of alcohol).

If COVID-19 is mapped against elements of any MPA ‘theory of change (i.e. assumed suggested activities and consequences)⁸⁰ it might suggest it has differently impacted against each considerations of compliance, consumption, price and purchasing. Further, it might also impact on product/marketing changes and or social norms or attitudes⁸¹. Interestingly a

⁷⁸ Sivarajasingam, V.; Guan, B.; Page, N.; Moore, S. and Shepherd, J.p. (2021) Violence in England and Wales in 2020 An Accident and Emergency Perspective. Cardiff, Cardiff University.

⁷⁹ The numbers here deliberately do not add up to 100% as they reflect aggregate percentages from multiple sources to three different elements. The key message is that no change is larger than either of the other two responses.

⁸⁰ Public Health Scotland (2021) The evaluation of Minimum Unit Pricing (MUP) for alcohol: [Summary](#)

⁸¹ Biddle, N.; Edwards, B.; Gray, M. and Sollis, K. (10-06-2020) Australia National University (Centre for Social Research and Methods) [Research report - Alcohol consumption during the COVID19 period](#): May 2020.

number of alcohol producers turned their facilities over to the production of alcohol-based hand sanitizers⁸².

According to the Richmond Fellowship, there are three stages of a response to a pandemic: (i) Survival, (ii) Acceptance and (iii) Growth⁸³. In relation to alcohol consumption, the complexity is obvious. For example, some 'growth' might mean that individuals develop healthier and controlled use of alcohol as their emotional resilience improves, but where for a society this is interpreted as an easing of lockdown rules, this might be interpreted as more opportunities to drink. Equally, 'survival' could include increased or reduced drinking as a coping mechanism.

It seems that COVID-19-led responses in individual and collective consumption and purchasing of alcohol, have interweaved these three stages, as the phases of restrictions move in and out of lockdown. The impacts of COVID-19 are therefore likely to be numerous, occur through a range of different pathways, and vary by types of drinkers and communities. It is also likely that the Welsh context of a similar time convergence between COVID-19 and MPA implementation, will offer a nuanced story to that of Scotland, where nearly two years post MUP implementation evaluation data was collected prior to the first major COVID-19 outbreak in the UK.

⁸² Neufeld, M., Lachenmeier, D.W., Ferreira-Borges, C. and Rehm, J. (2020), Is Alcohol an "Essential Good" During COVID-19? Yes, but Only as a Disinfectant! *Alcohol Clin Exp Res*, 44: 1906-1909.

⁸³ Richmond Fellowship. (May 2020). [Three stages of pandemic response – support for those in recovery](#).

Appendix 4 Impact of COVID-19 on drinking and related behaviours – literature review

Table A4 Characteristics of eligible studies investigating the impact of COVID-19 on drinking and related behaviours (in order of design and data collection point(s))

Authors	Country	Design	Data collection point(s)
1. Thomas et al. (2020)	India	Cross-sectional data	After
2. Alladio et al. (2021)	Italy	Cross-sectional data	Before and after - different samples
3. Chinnaratha and Harding (2020)	Australia	Cross-sectional data	Before and after - different samples
4. Ghimire, (2020)	Nepal	Cross-sectional data	Before and after - different samples
5. Ghosh et al. (2021)	India	Cross-sectional data	Before and after - different samples
6. Grigoletto et al. (2020)	Italy	Cross-sectional data	Before and after - different samples
7. Itoshima et al. (2021)	Japan	Cross-sectional data	Before and after - different samples
8. Julien et al. (2021)	USA	Cross-sectional data	Before and after - different samples
9. Singh et al. (2021)	India	Cross-sectional data	Before and after - different samples
10. Ward et al. (2021)	USA	Cross-sectional data	Before and after - different samples
11. Balhara et al. (2020)	India	Cross-sectional interviews/ focus groups	After
12. Nicholls and Conroy (2021)	UK	Cross-sectional interviews/ focus groups	After
13. Searby and Burr (2021)	Australia	Cross-sectional interviews/ focus groups	After
14. Yazdi et al. (2020)	Austria	Cross-sectional interviews/ focus groups	After
15. Alpers et al. (2021)	Norway	Cross-sectional survey	After
16. Avery et al. (2020)	USA	Cross-sectional survey	After
17. Bramness et al. (2021)	Norway	Cross-sectional survey	After
18. Budimir et al. (2021)	Austria	Cross-sectional survey	After
19. Callinan et al. (2021)	Australia	Cross-sectional survey	After
20. Christie et al. (2021)	USA	Cross-sectional survey	After
21. Dumas et al. (2020)	Canada	Cross-sectional survey	After
22. Flaudias et al. (2021)	France	Cross-sectional survey	After

Authors	Country	Design	Data collection point(s)
23. Garnett et al. (2021)	UK	Cross-sectional survey	After
24. Grossman et al. (2020)	USA	Cross-sectional survey	After
25. Jacob et al. (2021)	UK	Cross-sectional survey	After
26. Kim et al. (2020)	UK	Cross-sectional survey	After
27. Mohr et al. (2021)	USA	Cross-sectional survey	After
28. Naughton et al. (2021)	UK	Cross-sectional survey	After
29. Opinium (2021)	UK	Cross-sectional survey	After
30. Prestigiacomo et al. (2021)	USA	Cross-sectional survey	After
31. Rodriguez et al. (2021)	USA	Cross-sectional survey	After
32. Salerno et al. (2021)	USA	Cross-sectional survey	After
33. Sallie et al. (2020)	Multiple	Cross-sectional survey	After
34. Schmits and Glowacz (2020)	Belgium/France and Canada	Cross-sectional survey	After
35. Szajnoga et al. (2020)	Poland	Cross-sectional survey	After
36. Ustun (2021)	Turkey	Cross-sectional survey	After
37. Valente et al. (2021)	Multiple	Cross-sectional survey	After
38. Villanueva et al. (2021)	Spain	Cross-sectional survey	After
39. Weerakoon et al. (2021)	USA	Cross-sectional survey	After
40. Capasso et al. (2021)	USA	Cross-sectional survey	After - 2 waves
41. Pollard et al. (2021)	USA	Cross-sectional survey	After - 2 waves
42. Salazar-Fernández et al. (2021)	Chile	Cross-sectional survey	After - 4 waves
43. Anderson et al. (2021)	UK	Cross-sectional survey	Before and after - different samples
44. Charles et al. (2021)	USA	Cross-sectional survey	Before and after - different samples
45. Croxford et al. (2021)	UK	Cross-sectional survey	Before and after - different samples
46. Jackson et al. (2021)	UK	Cross-sectional survey	Before and after - different samples
47. Karlsson et al. (2020)	Australia	Cross-sectional survey	Before and after - different samples

Authors	Country	Design	Data collection point(s)
48. Rossow et al. (2021)	Norway	Cross-sectional survey	Before and after - different samples
49. Ryerson et al. (2021)	USA	Cross-sectional survey	Before and after - different samples
50. Stevely et al. (2021)	UK	Cross-sectional survey	Before and after - different samples
51. Wisk and Buhr (2021)	USA	Cross-sectional survey	Before and after - matched samples
52. Bakaloudi, et al. (2021)	Multiple	Literature review	n/a
53. Public Health England (2021)	UK	Literature review	n/a
54. Cerezo et al. (2021)	USA	Longitudinal survey	Before and after - same samples
55. Daly and Robinson (2021)	UK	Longitudinal survey	Before and after - same samples
56. Graupensperger et al. (2021)	USA	Longitudinal survey	Before and after - same samples
57. Maggs et al. (2021)	USA	Longitudinal survey	Before and after - same samples
58. Papp and Kouros (2021)	USA	Longitudinal survey	Before and after - same samples
59. White et al. (2020)	USA	Longitudinal survey	Before and after - same samples

Appendix 5 Impact of minimum pricing policies on drinking and related behaviours – literature review

Table A5 Characteristics of eligible studies investigating the impact of COVID-19 on drinking and related behaviours (in alphabetical order by first author surname)

Author(s)	Country	Aims and method
1. Cook et al. (2020)	Australia	<ul style="list-style-type: none"> • Based on a survey of people who purchased and consumed alcohol in the past six months. • To assess levels of support for potential changes in a series of price-based policies.
2. O'Brien et al. (2021)		<ul style="list-style-type: none"> • Based on wastewater analysis in the Northern Territory of Australia. Samples collected before and after MUP every two months in capital cities and every four months in regional places between August 2016 and February 2020. • To assess the impact of MUP on population alcohol consumption
3. Taylor et al. (2021)	Australia	<ul style="list-style-type: none"> • Based on an interrupted time series analyses • To examine MUP effects on trends in estimated per capita alcohol consumption (PCAC) for cask wine, total wine and total alcohol, across the Northern Territory (NT) and in the Darwin/Palmerston region.
4. Grigoriev and Bobrova (2020)	Belarus	<ul style="list-style-type: none"> • Based on: (1) a narrative review of alcohol policies and anti-alcohol measures, (2) analysis of data on alcohol consumption and relevant variables from official statistical books, and (3) analysis of mortality trends from official tables by causes of death. • To assess the impact of different alcohol control policies on consumption and production.
5. Parna (2020)	Estonia	<ul style="list-style-type: none"> • Based on a review of routine statistics concerning alcohol consumption and relevant legislation. • To assess the effects of alcohol policy on adult (15+) pure alcohol per capita consumption (APC) in litres, alcohol outlet densities and opening hours, taxes and the price of alcoholic beverages.
6. Neufeld et al. (2020)	Former Soviet Union	<ul style="list-style-type: none"> • Based on a narrative review on recent drinking trends and alcohol policy developments in 15 Former Soviet Union countries.

Author(s)	Country	Aims and method
		<ul style="list-style-type: none"> To highlight the most important setbacks, achievements and best practices.
7. Gururaj et al. (2021)	India	<ul style="list-style-type: none"> Based on: (1) a review of published and unpublished research and (2) anecdotal media information in the period 2000-2020. To assess the burden and pattern of alcohol use and appraise alcohol control policies in India.
8. Chalak et al. (2020)	Lebanon	<ul style="list-style-type: none"> Based on analysis of stated preference alcohol purchase data from a survey of 1024 university students in Lebanon. To assess the impact of two excise tax scenarios on overall ethanol intake. (1) a broad-based 20% tax on all types of alcoholic beverages, (2) a targeted 20% tax only on the high ethanol content, while exempting the lower ethanol beverages.
9. Poikolainen (2020)	No specific country	<ul style="list-style-type: none"> Based on a review [of unknown scope] of scientific evidence on alcohol policy. To investigate to what degree the evidence supports paternalistic alcohol policy targeting fully competent adults.
10. Zaslomova and Kolosnitsyna (2020)	Russia	<ul style="list-style-type: none"> Based on the analysis of data on recorded alcohol consumption per capita (APC). To investigate regional variation in alcohol consumption and the association between the share of spirits in APC, and recorded and unrecorded APC.
11. Trollidal et al. (2021)	Sweden	<ul style="list-style-type: none"> Based on time series analysis of data from a survey of students aged 15-16. To assess the effect of changes in price on consumption levels and binge drinking.
12. Alcohol Health Alliance (2020)	UK - England and Wales	<ul style="list-style-type: none"> Based on a survey of the price of alcohol in supermarkets and off-licences and an assessment of prices in a range of off-licence premises in England, Scotland and Wales to identify the cheapest products. To assess the impact of MUP/MPA on prices of alcohol in Scotland and Wales compared with England.
13. Weston's Cider Report (2021)	UK - England, Scotland and Wales	<ul style="list-style-type: none"> Based on analysis of sales data and alcohol industry expert views. To provide an annual overview of the cider category, looking back but also looking forward.

Author(s)	Country	Aims and method
14. Alcohol Focus Scotlan (2021)	UK - Scotland	<ul style="list-style-type: none"> • Based on a review of the alcohol-related death data in Scotland • To assess whether MUP is associated with reduction in alcohol-specific deaths.
15. Buykx et al. (2021)	UK - Scotland	<ul style="list-style-type: none"> • Based on three waves of cross-sectional structured interview survey data from people with probable alcohol dependence presenting to treatment services in Scotland and northern England. • To assess the impact of MUP among people who are alcohol dependent and accessing treatment services
16. Ferguson et al. (2020)	UK - Scotland	<ul style="list-style-type: none"> • Based on data drawn from the Scottish Attitudes Survey from 2013, 2015 and 2019. • To assess public attitudes to MUP for alcohol in Scotland
17. Ferguson et al. (2021)	UK - Scotland	<ul style="list-style-type: none"> • Based on a descriptive analysis of changes in the price distribution of pure alcohol sold per adult in the off-trade before and after MUP. • To evaluate the impact of MUP on the price distribution of off-trade alcohol in Scotland
18. Robinson et al. (2020) and then updated (March 2021)	UK - Scotland	<ul style="list-style-type: none"> • Based on a controlled interrupted time series • To assess whether the introduction of MUP was associated with a change in the volume of pure alcohol sold per adult in the off-trade in Scotland in the 12-month period after it was introduced, overall and by drink category • Off-trade alcohol sales data from January 2013 to May 2019.
19. Xhurxhi (2020)	UK - Scotland	<ul style="list-style-type: none"> • Based on yearly alcohol price and sales data from 2011 to 2019. • To develop early estimates of the impact of MUP on three outcomes in three different settings (off-premise, on-premise and both combined): <ol style="list-style-type: none"> 1. average price per unit (8 gr/10 ml) of alcohol 2. litres of alcohol sold per adult 3. litres of alcohol sold per adult drinker
20. Anderson et al. (2021)	UK - Scotland and Wales	<ul style="list-style-type: none"> • Based on a controlled interrupted time series analyses of Kantar World Panel's household shopping panel, which included 1.24m separate alcohol

Author(s)	Country	Aims and method
		<p>purchases 2015-18 and the first half of 2020.</p> <ul style="list-style-type: none"> • To assess the impact of MPA/MUP on prices and purchases in Scotland and Wales.
21. Alcohol Change (2020)	UK - Wales and England	<ul style="list-style-type: none"> • Based on a comparison of popular alcohol brands sold in major supermarkets in Wales in December 2019 and 2020 and in England in December 2020. • Data were captured from online prices listed by four major supermarket chains: ASDA, Morrison's, Sainsbury's and Tesco. • To assess changes in price post implementation of MPA in Wales compared with England.