

## COMMENTARY

## Alcohol use in times of the COVID 19: Implications for monitoring and policy

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### Abstract

Based on a literature search undertaken to determine the impacts of past public health crises, and a systematic review of the effects of past economic crises on alcohol consumption, two main scenarios—with opposite predictions regarding the impact of the current COVID-19 pandemic on the level and patterns of alcohol consumption—are introduced. The first scenario predicts an increase in consumption for some populations, particularly men, due to distress experienced as a result of the pandemic. A second scenario predicts the opposite outcome, a lowered level of consumption, based on the decreased physical and financial availability of alcohol. With the current restrictions on alcohol availability, it is postulated that, for the immediate future, the predominant scenario will likely be the second, while the distress experienced in the first may become more relevant in the medium- and longer-term future. Monitoring consumption levels both during and after the COVID-19 pandemic will be necessary to better understand the effects of COVID-19 on different groups, as well as to distinguish them from those arising from existing alcohol control policies. [Rehm J, Kilian C, Ferreira-Borges C, Jernigan D, Monteiro M, Parry CDH, Sanchez ZM, Manthey J. Alcohol use in times of the COVID 19: Implications for monitoring and policy. *Drug Alcohol Rev* 2020;39:301–304]

**Key words:** alcohol drinking, COVID-19, pandemics, psychological distress, availability.

The current pandemic caused by the coronavirus disease 2019 (COVID-19) outbreak [1] has many implications, one of them being the potential impact on health behaviour, including the consumption of alcohol. As there is no scientific evidence on the impact of the pandemic

yet, we conducted a quick search of the literature on the impact of other recent public health crises—either triggered by other infections or by strong economic downturns—on the levels and patterns of alcohol use (for search terms, see Appendix). From this, two

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potential main mechanisms that are not mutually exclusive emerge, with accompanying hypotheses about the possible impact of COVID-19 on alcohol use (see the systematic review on the impact of economic crises on alcohol consumption by de Goeij *et al.* [2]).

One mechanism suggests that the increase in psychological distress triggered by the interaction of financial difficulties, social isolation and uncertainty about the future during and after crises like the COVID-19 pandemic can worsen patterns of alcohol use and increase attributable harm.

The other set of mechanisms, based on the physical and financial availability (affordability) of alcohol derived from evidence of alcohol control policy research [3], would predict reductions in the level of alcohol use and attributable problems:

- As crises like the COVID-19 pandemic are usually associated with unemployment and reduced working hours leading to income reductions for larger parts of the population, this might lead to tighter budgets and a decrease in alcohol use and attributable problems. While the exact impact on unemployment will differ by country and the countermeasures enacted by governments, the potential size of this factor can be seen in the USA, where unemployment insurance claims had already reached new record heights in March 2020 [4].
- The availability restrictions in the pandemic—linked to measures such as the closing of on-premise consumption sites—could also lead to reductions in the level of alcohol use and attributable harm. Again, on-premise consumption varies by country and type of alcoholic beverage but can be sizable, as in the UK in 2016, when about half of the beer was consumed on-premise (Nielsen Survey, cited by Statista [5]). In some countries, not only was on-premise consumption restricted, but a total temporary ban of selling alcoholic beverages was implemented, and in one instance (Northern France), it was already retracted in late March [6].
- South Africa can also serve as an example of more restrictive availability interventions that have developed over the past days. On 18 March 2020, as part of its COVID-19 Disaster Management Strategy, the government announced a number of limitations on the sale, distribution and transportation of liquor, including among other things: a 50-person limit on the number of people that can be accommodated in on-site consumption premises selling liquor, including taverns, restaurants and clubs at any time; a ban on the granting of special events liquor licenses; a stipulation that all on-site consumption premises selling liquor must be closed between 18:00 and 09:00 the next morning on weekdays and Saturdays

and from 13:00 on Sundays and public holidays; and the requirement that all off-site consumption premises selling liquor must be closed between 18:00 and 09:00 the next morning on weekdays and Saturdays and from 13:00 on Sundays and public holidays [7]. A week later, as one of the measures instituted as part of a 21-day state lockdown from midnight on 26 March 2020 to control the spread of the coronavirus, even more stringent controls on alcohol were imposed. Alcohol was not included in the list of essential goods and services that could be purchased during the lockdown period. Specific mention was made that among the list of premises closed to the public during the lockdown were on-site consumption premises, including taverns and shebeens, where liquor is sold, and off-site consumption premises, including bottle stores and areas of supermarkets where alcohol was sold [8]. In explaining the measures, the Minister of Police indicated that the ‘expected decline in accidents and assaults due to the ban on buying alcohol will free up much-needed space in hospitals during the coronavirus crisis’ [9]. He further indicated that nobody would be able to transport alcohol during the lockdown. As of 25 March 2020, several liquor traders and consumers had been arrested and were facing charges for contravention of the *National Disaster Management Act*. In addition, the regulatory authorities were looking at revoking or cancelling the trading licenses of traders contravening this Act [10].

The timing of the effects also needs to be considered. Some of the impacts may be immediate, that is, during the crisis (e.g. financial implications, availability restrictions), and some may be in the longer term, that is, later consequences in the months or years after the crisis. In the most comprehensive systematic review on the topic of economic crises, de Goeij *et al.* [2] found evidence for both mechanisms: across many countries, the psychological distress mechanism was observed mainly in men. However, the tighter budget constraints mechanism seemed to play a role in all population subgroups across all countries. For other mechanisms examined (deterioration in the social situation, fear of losing one’s job and increased non-working time), empirical evidence was scarce or absent or had small to moderate effect sizes.

When examining research more tightly linked to prior epidemics of infectious diseases, we found additional evidence for the distress mechanism. Two studies were identified by a recent search (see below) that examined Chinese citizens exposed to the Severe Acute Respiratory Syndrome (SARS) pandemic in 2003 [11,12]. Among more than 800 Hong Kong residents, 4.7% of male and 14.8% of female current drinkers reported an increase in their drinking 1 year after the SARS pandemic [11]. In

particular, for affected individuals, such as hospital employees in Beijing who were either in quarantine or worked in high-risk hospital wards, the risk of reporting symptoms of an alcohol use disorder 3 years after the SARS outbreak was about 1.5 times higher than for non-exposed hospital employees [12]. Both references point to medium- or longer-term consequences. Similarly, natural and man-made disasters seem to be linked to longer-term increases in drinking due to distress [13–15].

What does this mean for alcohol use and COVID-19? First, we expect the level of use to decrease in the immediate future, although some governments, especially in high-income countries, are likely to help the economic operators by declaring off-premise alcohol sales to be an essential business and requiring vendors to remain open in times of lockdown, as has been done in many countries. Governments may also loosen existing restrictions on delivery and internet sales (e.g. [16]). Given the history of alcohol control in high-income countries, such changes may not be retracted after the pandemic is over. A relaxation of alcohol control measures and increasing personal distress related to the COVID-19 outbreak could lead to an increase in alcohol consumption and/or a worsening of patterns in the long term [2,17]. Thus, the economic crisis of 2007/2008 had no lasting impact on the overall slight increase in global alcohol consumption until 2017 [18].

In the short term, the shift from on-premises to off-premises drinking may have a concomitant shift in consequences: while drunk-driving will almost certainly decline due to less travelling to and from drinking locations, violence may increase due to the stronger relationship between off-premises outlets and violent crime ([19]; potential domestic and other violence increases were also used as the main rationale for temporary bans on alcohol).

What are the implications of the current situation?

- We need to closely monitor any change in alcohol use. The tendency for some affected individuals to increase their drinking during prior epidemics may be indicative of self-medication, which can have long-term deleterious effects, including exacerbating alcohol's role in the 'diseases and deaths of despair' [20].
- The current situation is unique in terms of mass physical distancing and use of social media for interaction and may trigger different behaviours. Any increase in alcohol use, however, would not only add to the usual disease burden associated with alcohol [21,22] but also add to the COVID-19 load given that alcohol use, particularly heavy drinking, may weaken the innate and acquired immune system [23].
- This monitoring effort should not only look at the overall level of consumption but should differentiate by

gender and socio-economic status. The above-mentioned review [2] already identified gender differences, and alcohol-attributable harm differs markedly by socio-economic status. For instance, the increases of alcohol-attributable mortality in North America have been almost exclusively borne by the lower socio-economic strata [24,25].

We also need better evidence on the relationship between social isolation, with the exception of interactions via internet and social media, and alcohol use and on the impact of the above-described policy changes. This becomes all the more necessary as some of the changes introduced in high-income countries may now foreshadow future key market mechanisms for selling alcohol. Finally, we need to quantify the effects of the different elements associated with COVID-19 to be honest in reporting on the impact of global policy initiatives on alcohol use. Assuming that the COVID-19 pandemic will indeed be associated with a global reduction in alcohol use, this effect should not be promoted as an indicator of the success of current alcohol control policy commitments.

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### Conflict of Interest

The authors have no conflicts of interest to declare.

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## APPENDIX

### Search terms:

- Public health crisis and alcohol and health behaviour.
- Public health crisis and [influenza or corona or covid or sars or flu or ebola or mers or cholera or dengue or pandemic or epidemy) and (alcohol or health behaviour)].
- Alcohol and health behaviour and (Fukushima or natural disaster or Chernobyl or flood or blizzard).