

EDITOR'S CORNER

A Festival of Epiphanies: Three Revelations in Support of Better Alcohol Control Policies

AN EPIPHANY, according to the literary definition of the word, is a revealing moment when the essential meaning of something suddenly becomes apparent. In this issue of the *Journal of Studies on Alcohol and Drugs*, we publish a set of three review articles (Carah & Brodmerkel, 2021; Lachenmeier et al., 2021; Rossow & Mäkelä, 2021) that provide the basis for a festival of epiphanies. The articles were commissioned by the authors of the forthcoming third edition of the book *Alcohol: No Ordinary Commodity* (Babor et al., in press) to provide background information on three issues of crucial importance to the design and implementation of effective alcohol policy: (a) the importance of alcohol per capita consumption (APC) for public health and safety (Rossow & Mäkelä, 2021), (b) the dramatic innovations taking place in the way alcohol and other consumer goods are marketed on a global level (Carah & Brodmerkel, 2021), and (c) the yawning gap in our knowledge of illicit and unrecorded alcohol production (Lachenmeier et al., 2020). Each article offers the reader the opportunity to experience an “aha” moment when things that were unknown or unexplained are suddenly revealed.

The process of commissioning, writing, and peer reviewing these articles was established almost 50 years ago, when Professor Kjetil Bruun gathered a group of social, behavioral, and public health scientists to produce a report titled “Alcohol Control Policies in Public Health Perspective” (Bruun et al., 1975). That report set the stage for a series of book projects and systematic reviews devoted to a critical evaluation of the scientific research relevant to alcohol policy at the local, national, and international levels (Babor et al., 2003, 2010; Edwards et al., 1994; Rehm et al., in press). What the three new review articles have in common with these book projects is their ability to critically evaluate the scientific evidence, question basic assumptions, confirm conventional wisdom (at times), and provide practical guidance on policies and practices related to the prevention of alcohol problems in different societies.

Per capita alcohol consumption

The first article, by Rossow and Mäkelä (2021), reviews the epidemiological evidence and population theory per-

taining to APC, a common indicator used in public health to monitor exposures related to alcohol-related harm. The authors explain why there are close associations between APC and population levels of many health and social consequences, as demonstrated in a substantial literature. The mean consumption in a population is closely associated with the prevalence of heavy drinking, and for many types of harm—including alcohol-related injuries and chronic diseases—a substantial amount of alcohol harm is experienced by “ordinary” drinkers. Although heavy drinkers are most at risk, the aggregate harm accrues to ordinary drinkers as well because they are far more numerous in the population. Several studies have shown that the close connection between mean consumption and prevalence of heavy drinking pertains to within-country changes over time, suggesting that by reducing APC, less alcohol-related harm will be experienced by both heavy and moderate drinkers. This is consistent with what has been found from extensive research demonstrating that universal policies targeting APC such as taxation policies and availability restrictions are the best ways to prevent alcohol-related problems.

In the course of arriving at these conclusions, Rossow and Mäkelä’s review provides important insights into the history of alcohol control measures. The first is the continuing work on the distribution of consumption model, also called the single distribution theory, which was first popularized by French demographer Sully Ledermann (1956), reinvented by the authors of “Alcohol Control Policy in Public Health Perspective” (Bruun et al., 1975), and subsequently brought to a higher level of theoretical integration by Ole-Jørgen Skog (1985). These insights lead to the first epiphany in the reading of these articles: Strategies that reduce drinking in all consumer groups are likely to slow down the pace of drinking careers that would result in severe problems.

Another insight is the authors’ description of the historical and contemporary responses of the alcohol industry to the distribution of consumption theory. For example, the International Alliance for Responsible Drinking, an organization funded by leading alcohol producers, has been attempting to replace APC with indicators of harmful alcohol use (Sherwin, 2020; see also Rehm et al., 2020). This self-serving strategy betrays a basic misunderstanding of the skewed dis-

tribution underlying APC, which shows no clear demarcation between light, moderate, and heavy drinkers. The industry strategy may also be influenced by the greater difficulty in collecting such indicators, especially in low- and middle-income countries, compared with the more readily available measures of APC.

The dark side of alcohol marketing

If the growth of APC in the emerging economies of the world were not a troubling harbinger of things to come, the unholy alliance between the alcohol industry and the largest advertiser-funded media companies in the world adds to this concern because it may be one of the drivers of increasing APC outside of the high-income countries, combined with greater disposable income resulting from economic growth (Rehm et al., in press). This is suggested in the second review (Carah & Brodmerkel, 2021), which deals with the remarkable and very troubling changes that have occurred in alcohol marketing over the past two decades. Digital media platforms such as Facebook, YouTube, and Instagram now play a significant role in the marketing of alcohol, with little or no regulation in place to protect vulnerable population groups, including in less developed countries in which the emerging economies are fueling increased drinking.

The sad irony of this development is captured in the authors' observation that even as these platforms provide marketers with information about the minute details of our everyday lives, allowing an unprecedented level of targeting, they also make digital marketing much more impervious to public scrutiny and empirical study, which has now become the "dark" side of alcohol marketing. The authors' review of the academic and industry literature shows how alcohol marketing has become a dynamic, participatory, and data-driven process that has the potential to go far beyond the effects of more traditional forms of television, radio, and print advertising, which are limited to the one-way manipulation of exposure and content.

The innovative use of digital platforms is also part of a larger strategic effort by the alcohol industry to reverse the decline in alcohol consumption among young people in developed countries and to create new markets in developing countries with a young, Internet-using consumer base (Gupta et al., 2018).

The participatory nature of social media platforms provides a context for creating media-driven drinking cultures, along with the problems they entail. Current responses focus mainly on voluntary agreements with the alcohol industry to limit the exposure of youth and avoid content that is considered inappropriate. The inability to monitor the content, processes, and exposures of the digital media removes the alcohol industry's activities from public scrutiny particularly in relation to their use of personal data to target unwary consumers.

Digital marketing is substantially organized around the collection and use of the consumer's personal data, and these aspects are not covered by any regulations or voluntary codes. In this new digital marketing environment, the object to be regulated is no longer just the content of a particular message but rather the processes of data-driven for-profit optimizations.

Unrecorded alcohol: The hidden epidemic

The third article in this series, by Lachenmeier et al. (2021), begins with a startling revelation: About 25% of global alcohol consumption is unrecorded, that is, the alcohol produced is not registered in the country in which it is consumed and is often not taken into account in epidemiological research. Unrecorded alcohol includes homemade, illicit, and surrogate alcohols, as well as some legally purchased alcohol brought across borders. The article reviews approximately 100 articles published in the past decade on various aspects of unrecorded alcohol.

Despite this growth in the literature, the topic continues to be under-researched, a gap in knowledge filled in many ways by this review. Contrary to the impressions derived from media reports of methanol poisoning outbreaks, most of the harm associated with unrecorded and especially home production is caused by the excessive amounts of ethanol consumed, just like the harms caused by legally produced alcohol. Toxic ingredients such as methanol can cause blindness and death, but they account for only a small proportion of the morbidity and mortality of unrecorded alcohol.

If we assume that unrecorded alcohol has the same health consequences as recorded alcohol, Lachenmeier et al. suggest that ethanol as a component of unrecorded alcohol would be responsible for about 750,000 to 800,000 deaths per year. Reported methanol deaths, on the other hand, amount to several thousand per year at most.

Ironically, in some cases unrecorded alcohol is even cleaner than commercial alcohol because it often lacks the added chemicals used by commercial producers to add taste or color. And many homebrews, such as traditional beers made in rural areas of Africa, are actually less harmful than commercial beers because of their lower alcohol content.

The article also summarizes the impacts of unrecorded alcohol use on the health of people with lower socioeconomic status. Widespread availability, membership in heavier drinking networks, and low cost were found to be the main precipitants for the consumption of nonbeverage alcohol, including mouthwash, hairspray, aftershave, and rubbing alcohol.

Beyond the epidemiology of unrecorded alcohol, Lachenmeier et al. describe the policy options that can be used to reduce unrecorded alcohol consumption and its consequences. Effective policy options include restricting access to methanol, denaturing ethanol-containing liquids that

could be used as surrogates, introducing more effective and less toxic denaturizing additives, and improving monitoring systems for fraud, tax evasion, and local sales restrictions.

Note that the options in this list do not include the solutions proposed by the alcohol industry, such as improving the competitive position of its recorded alcohol by lowering taxes, combined with increased penalties for home brewing. When this was tried in Belarus two decades ago (Grigoriev & Bobrova, 2020), it contributed to increased consumption of cheap commercial alcohol, which calls into question the industry's solution to the problem.

A festival of epiphanies

Read as a set of independent reviews, each of these articles stands alone as a valuable contribution to the broad area of alcohol policy analysis. But considered as a group of commissioned articles guided by a more deliberate process of inquiry into policy-relevant issues, the articles represent a more concerted attempt to develop a science-based approach to the global burden of alcohol problems and a disturbing set of insights into enormous challenges to effective alcohol control measures in the future.

Alcohol policies are often based on a combination of political expediency, commercial interests, historical tradition, common sense, health needs, crisis intervention, and sometimes even a scientific understanding of what works. Of all the factors influencing alcohol policy, scientific understanding is perhaps the most important but the least influential route to minimize or prevent alcohol-related problems. With the growing strength and professionalism of alcohol science throughout the world, there is now a cadre of career scientists who have been trained in the analysis and evaluation of alcohol policies. The three featured articles collected in this issue of the *Journal of Studies on Alcohol and Drugs* are part of this movement to advance the knowledge base behind alcohol policy through research, theory, and monitoring of global trends that affect alcohol problems. We are grateful to the authors for their efforts to bring science and policy into a closer alignment.

Acknowledgment

The authors of the forthcoming edition of *Alcohol: No Ordinary Commodity* are grateful to the Norwegian Health Directorate, which provided financial support for a meeting of the commissioned paper authors that was held in Dublin, Ireland, March 7–8, 2020, and to Jean O'Reilly and the British Society for the Study of Addiction, which supported the logistics of the commissioning process.

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