International Journal of Mental Health and Addiction
https://doi.org/10.1007/s11469-025-01543-w

COMMENTARY

Prioritizing Abstinence-Based Prevention, Regulation, and Recovery to Reduce Substance-Related Harm and Promote Mental Health at a Population-Level

John W. Toumbourou[1] · **Elizabeth Jane Doery**[1] · **Shane Varcoe**[2]

Received: 9 May 2025 / Accepted: 7 August 2025

Abstract
This commentary argues the need to prioritize regulation and abstinence-based prevention and recovery as critical services in efforts to maximize the reduction of substance-related harm and the promotion of mental health at a population-level. Treatment and harm reduction for those experiencing mental health and or substance use problems tends to be poorly integrated with regulatory and prevention approaches, which seek to reduce the development of these problems. This commentary examines evidence from Australia to argue the benefits of more deliberate service system integration based on life-course science. Harm reduction programs dominated the substance use prevention field in Australia until 2009 and were associated with high levels of youth substance use. The introduction of abstinence-based prevention programs and policies effectively reduced adolescent substance use and these reductions have flowed to generational reductions in adult substance use. The potential benefits of Australia's movement to abstinence-based prevention continue to be disrupted by conflicting harm reduction treatment messages. This commentary outlines the argument to maximize substance use intervention effectiveness and mental health promotion by increasing investment in abstinence-based substance use regulation and prevention and then restructuring treatment and recovery services to more deliberately integrate with this emphasis. The benefits of this approach are argued to include reduction of substance use harm and mental health burden.

Keywords Policy · Treatment · Prevention · Drug abuse · Mental health promotion · Service systems

Alcohol and other drug (substance) use and mental health problems contribute to significant health and social costs internationally (Ciobanu et al., 2018; Manthey et al., 2021; Toumbourou et al., 2007). Solutions to reduce the high costs of substance use and mental

✉ John W. Toumbourou
john.toumbourou@deakin.edu.au

[1] Research Centre for Social and Early Emotional Development (SEED Lifespan) and School of Psychology, Faculty of Health, Deakin University, Geelong, Australia

[2] Dalgarno Institute, Dandenong, Australia

health problems include both prevention (reducing the development of problems through life-course and community change policies and programs) and treatment (assisting the reduction or recovery from problems). There has been success in Australia and other nations reducing tobacco use combining prevention and treatment approaches (Borland & Yong, 2018).

Although prevention and treatment efforts coexist in each community, there has been limited consideration of how to integrate these efforts within community service systems to reduce the population burden of substance use and mental health problems. This commentary paper reviews evidence from substance use evaluations to argue for a stronger emphasis on abstinence-based prevention as the basis for aligning substance use treatment and recovery efforts. We note that many of the programs and practices emphasized in abstinence-based prevention and aligned treatment and recovery have evidence for promoting community-wide mental health and social cohesion.

Evaluations of Community Systems Frameworks

Toumbourou et al. (2007) provided one of relatively few reports that have considered how prevention and treatment models can be integrated across population settings (e.g., community, state, nation) to reduce harm associated with adolescent substance use. This highly cited review recommended that investment should emphasize regulatory interventions (i.e., using law, policies, and enforcement to reduce supply and demand of harmful substances, universally [across the whole population]), developmental prevention (improving conditions for healthy child and adolescent development using universal and targeted strategies), early screening and brief motivational interventions to reduce high-risk use in targeted groups, and treatment, and harm reduction.

The current report updates these recommendations with contemporary evidence to argue for system integration based on normalizing abstinence-based regulatory, developmental prevention, and recovery principles as the foundation to build treatment practices within communities. In the section that follows, we outline how the recommendations from Toumbourou et al. (2007) led to reductions in youth and adult substance use across Australia.

Abstinence-Based Programs Prevented Adolescent Substance Use in Australia

Through until the late 1990s, harm reduction programs were the dominant substance use education programs offered to school-aged adolescents in Australia (Evans-Whipp et al., 2007). These programs were premised on the view that it was not feasible to prevent adolescent substance use, hence the pragmatic goal of prevention was to reduce harmful patterns of use rather than use per se. In contrast, during the 1980s, US programs to prevent adolescent substance use were reshaped to focus on abstinence, leading to large reductions in school-age alcohol and other drug use (Toumbourou et al., 2014a). In 2002, researchers conducted cross-national comparisons and identified substantially higher rates of alcohol, tobacco (McMorris et al., 2007), and overall substance use in Australian adolescents (Toumbourou et al., 2009), relative to their same aged, demographically matched US peers.

Evaluation studies identified aspects of harm reduction drug education to be the cause of the higher rates of substance use in Australian adolescents (Hemphill et al., 2011;

McMorris et al., 2011). School leaders and students reported Australian schools to have higher implementation of harm reduction and lower abstinence policies, relative to matched US schools (Evans-Whipp et al., 2007). These differences were associated with higher adolescent perceptions of favorable community and family attitudes to adolescent alcohol and other drug use, which were similar cross-national predictors of adolescent progression to alcohol and other drug use (Hemphill et al., 2011). Australian parents were more likely to supervise adolescent alcohol use, which was found to be a similar cross-national predictor of adolescents progressing to heavy alcohol use (McMorris et al., 2011). When longitudinally followed, the harmful effects of parental supervision of adolescent alcohol use (Bailey et al., 2024) and early adolescent alcohol use (Epstein et al., 2019) were found to explain cross-national differences in higher young adult alcohol problems in Australia.

The above research findings were influential in encouraging regulatory changes in Australian national health guidelines, which for the first time in 2009 recommended that adolescents abstain from alcohol use until age 18 (the legal age for purchasing alcohol in Australian states). Large school trials were run in Australia combining developmental prevention and regulatory education and demonstrated that rates of adolescent heavy alcohol use could be reduced by 25% through parent education that discouraged parents and neighborhood adults supplying and supervising adolescent alcohol use (Toumbourou et al., 2013). Large community trials demonstrated that adolescent alcohol use could be reduced using community-led programs that combined developmental prevention and regulatory enforcement interventions to reduce retailer, adult, and family supply of alcohol to adolescents (Rowland et al., 2022a, 2022b).

The movement away from harm reduction toward abstinence-based adolescent regulatory and developmental prevention interventions was associated with large reductions in adolescent alcohol and other drug use across Australia from 2002 to 2015 (Toumbourou et al., 2018). The increasing rates of adolescent alcohol use abstinence observed in Australian youth have resulted in generational changes whereby recent young adult populations have reduced rates of alcohol use and harm (Livingston et al., 2022).

Longitudinal research studies show that adolescents and young adults who have low rates of substance use experience better mental health through their adult lives (Hutchison et al., 2016; Merrin et al., 2024) and make larger contributions to social capital and social cohesion (Hutchinson et al., 2016). In adolescence, prevention programs can reduce both substance use problems, and mental health problems (Toumbourou et al, 2024).

Screening and brief interventions in young adults offer a further means of encouraging reductions in harmful substance use (Tanner-Smith & Lipsey, 2015). However, the potential benefit of these interventions remains theoretical as there are few examples where they have been able to achieve widescale population change.

Poor Integration Between Prevention and Harm Reduction Treatment Programs

In Australia and in other nations, debates persist as to how prevention and treatment programs can be better integrated at a community level. There appears broad agreement that abstinence-based regulatory and developmental prevention is an effective and efficient public investment (Kuklinski et al., 2021). In what follows, we outline how substance use industries and public investments in substance use treatment and harm reduction programs often conflict with abstinence-based regulatory and prevention strategies.

Tobacco

The integration of abstinence-based regulatory and treatment programs has been successful in reducing tobacco use. In more recent times, there is evidence that the harm reduction strategy of e-cigarette use has been beneficial in assisting tobacco smokers to quit cigarette use and avoid related harms (Mendelsohn et al., 2022). However, the proliferation of e-cigarette use weakened the non-smoking social norms achieved through tobacco prevention, leading to a developmental increase in e-cigarette use among youth previously abstinent from substance use (Veliz et al., 2020). Youth e-cigarette use has been associated with mental health problems (Becker et al., 2021).

Alcohol

There is increasing evidence supporting alcohol abstinence to protect public health. Strong evidence suggests reforming public health guidelines to align with World Health Organization (WHO) advice recommending alcohol abstinence to minimize cancer risks (Anderson et al., 2023). Currently, Australian public health guidelines recommend abstinence for youth, and for women around the period of pregnancy and breast-feeding (National Health & Medical Research Council, 2020). However, there are opportunities for better integrating alcohol use regulatory, prevention, and treatment. In the years since COVID-19 online and rapid alcohol delivery services have proliferated and increased alcohol access and harm (Coomber et al., 2024). There are sound arguments to extend the age range for regulatory interventions by raising the legal age of alcohol purchase from 18 to 21 in Australia (Toumbourou et al. 2014b) and other nations (Catalano et al., 2012). There is evidence that public health is improved through regulatory interventions to restrict alcohol markets, both for those with alcohol use problems and other community members (Coomber et al., 2024; Toumbourou et al, 2014b). In Australia, alcohol harm reduction programs are effectively used for road safety (Parmar et al., 2020); however, there is overly limited use of effective abstinence-based alcohol treatment programs such as Alcoholics Anonymous (AA, Kelly et al., 2020). We estimate that 0.1% of Australian adults have participated in AA, compared to 0.5% in the USA. We present in later sections the advantage of expanding the referral to the AA option.

Cannabis

There is a world-wide trend toward liberalization and legalization advocated by harm reduction arguments that the benefits in tax income and reduced policing will outweigh the public health risks (Hall et al., 2019). The trend to liberalize and legalize cannabis use conflicts with abstinence-based regulatory, prevention, and treatment efforts (Toumbourou et al., 2021) as it has been associated with increased adult use, and disorders (Athanassiou et al., 2023; Smart & Pacula., 2019), and harms including increasing cancer and birth defects (Reece & Hulse, 2022). Clear international policy action is required to increase regulatory, developmental prevention, and abstinence-treatment responses to reduce the harm of medicinal or recreational cannabis use.

Opioids

The commercial marketing of pharmacological opioids as harm reduction strategies to reduce pain has been linked to increased deaths and mental health problems associated with opioid use disorder (Beseran et al., 2022). The industrial marketing of pharmacological pain medications has led to extensive use, conflicting with pain management guidelines recommending abstinence-based strategies together with lifestyle changes such as moderate physical activity, and educational and psychosocial interventions (Foster et al., 2018; Geneen et al., 2015; Ryan et al., 2024).

In Australia, there are large populations using opioid maintenance therapies (e.g., methadone and buprenorphine) as a harm reduction strategy to reduce deaths associated with opioid use disorder. However, available studies associate high levels of physical and mental health problems and mortality with opioid maintenance therapies (Hser et al., 2015). The observation of increasing deaths of despair requires long-term risks of opioid maintenance to be addressed through attention to underlying social and economic determinants (Beseran et al., 2022).

Emphasizing Abstinence-Based Regulation, Prevention, and Treatment Does Not Mean Abandoning Harm Reduction for Substance Users

Effective harm reduction interventions include roadside alcohol and drug testing, needle and syringe exchange programs, serving alcohol in shatter-resistant glasses, and pharmacotherapies (Toumbourou et al., 2007). Our position is that harm reduction strategies should be evaluated for opportunity costs and implemented where they are demonstrated to be effective, and do not undermine abstinence-based regulatory or prevention strategies or the goal of increasing the abstinent population proportion. However, we argue that where there are limits to investments, abstinence-based regulatory and prevention should be prioritized to improve population health, human development, and social cohesion.

As the burden of substance abuse falls inequitably on minority groups, it is important to consider equity arguments in advocating public health investments. Emphasizing abstinence-based regulatory and prevention interventions does not require zero tolerance or harsh penalties for substance users. A compassionate approach should integrate effective policy, education, therapeutic support, and socioeconomic opportunities to encourage treatment and recovery (De Leon et al., 2020; Magor-Blatch et al., 2014). The next sections examine evidence supporting abstinence substance use treatment approaches and their association with these areas of enrichment.

Improving Cost-Effective Life-Course Investment in Abstinence-Based Approaches

Table 1 outlines current problems that result across the life course from the lack of emphasis on regulation, abstinence-based prevention, and recovery. Table 1 also outlines the cost-effective investment solutions and the key population indicators to assess success.

The sections that follow expand on the summary points in Table 1, beginning in childhood. Each year increasing numbers of children worldwide are harmed through exposure to parental substance use (McCabe et al., 2025). Examples include household tobacco smoke, fetal alcohol problems, and other impacts of parent alcohol use (Kuppens et al., 2020). More recently, cannabis legalization has been causally associated

Table 1 Life-course periods, current problems, investment solutions, and targets

Life-course period	Problems with current approach	Investment solutions (measurable population target)
Childhood (aged 0 to 10 years)	Unregulated industries, non-abstinence treatment, and weak utilization of recovery increases child harm from exposure to parent substance use	Spend more on cost-effective abstinence-based prevention, treatment, and recovery (fewer children exposed to parent substance use)
Adolescence (11 to 17)	Industry regulation and prevention under-emphasized and poorly implemented	Increase effective regulation and prevention investment (more adolescents abstinent)
Young adults and parents (18 to 29)	Unregulated industries encourage social norms favorable to substance use. High rates of substance use through conception and child rearing	Invest to improve regulation, prevention, and recovery (more parents and young adults abstinent)
Adults (30+)	Unregulated industries. Treatment and harm reduction poorly coordinated with abstinence and recovery efforts	Invest to improve regulation, and recovery (fewer adults harmed by substance use; recovery: more common and comprehensive)

with increased birth deformities and child development problems (Reece and Hulls, 2022). As substance use during child conception, pregnancy, or child rearing compromises healthy family and child development, encouraging substance use abstinence in early adulthood will have flow on benefits for the next generation. Targeted interventions with families vulnerable to substance use are feasible and offer benefit for future generations (Goldfeld et al., 2022). There are sound public health arguments for communities, states, and nations to set deliberate policy targets for integrated prevention, treatment, and recovery services to measurably reduce the number of children exposed to and harmed by parental substance use.

During adolescence, existing public health policy targets aim to increase the abstinent population proportion. However, there are opportunities to strengthen abstinence regulation and prevention interventions. For example, in Australia, underage alcohol sales regulations are weak, given the legal age is 18 rather than 21 (Toumbourou et al., 2014b) and 60% of retailers ignore regulations and sell alcohol to minors (Rowland et al., 2017). Rates of adolescent substance use abstinence show considerable cross-national variation, suggesting opportunities for international cooperation to identify and implement superior practices. For example, in 2023, lifetime abstinence from alcohol for the final years of secondary school was 47.2% in the USA (according to the Monitoring The Future (MTF) study), more than double the rate of 22.2% in Australia (reported in the Australian Secondary School Alcohol and Drug Survey (ASSAD)). USA policies such as age 21 alcohol purchasing deserve international attention (Catalano et al., 2012). However, in 2023 for late secondary student cannabis use, Australia achieved superior lifetime abstinence rates of 76.2% (ASSAD), higher than the 63.5% recorded in the USA (MTF). USA policies of recreational cannabis legalization are detrimental for abstinence (Pawar et al., 2024). Cross-national policy collaboration in prevention science can improve adolescent outcomes.

Young adults and parents have high rates of substance use. In defiance of regulations, alcohol is commonly sold to intoxicated patrons in bars and clubs (Quigg et al., 2018) and tobacco retailers use forbidden marketing techniques to encourage unhealthy social norms (Stubbs et al., 2022). In Australia, reductions in young adult alcohol use have been achieved by encouraging adolescent abstinence (Livingston et al., 2022). Population health policy targets should aim to deliberately increase the proportion of abstinent parents and young adults.

There is clear public health evidence (e.g., Anderson et al., 2023) and examples of effective approaches for promoting abstinence for adults (Borland & Yong, 2018). For these reasons, we argue that increasing the population proportion of abstinent adults should be a public health priority for communities, states, and nations.

For adults seeking assistance to address substance use problems, policies should seek to ensure recovery is more common and comprehensive. To do this with equity, different programs will be required to support diverse communities and contexts, including economic and mental health support where they contribute as underlying motives. This can be achieved by emphasizing cost-effective abstinence and recovery approaches (Kelly et al., 2020). Strengthening investment in therapeutic community and self-help models offers the potential to cost-effectively address underlying problems such as trauma and mental health recovery, physical and social health, housing, and employment. The sections below elaborate on the above summary points.

Feasible Treatment and Recovery Programs that Compliment Abstinence-Based Regulatory and Prevention Interventions

In what follows, we present evidence for abstinence-based treatment and recovery programs that are highly compatible with the effective regulatory and preventive interventions we outlined above. The current evidence strongly suggests that these types of substance abuse treatment and recovery models are feasible and cost-effective.

A Cochrane review (Kelly et al., 2020) found high quality evidence that abstinence-based programs such as Alcoholics Anonymous (AA) and Twelve Step Facilitated (TSF) substance abuse treatment have superior effects to alternative clinical interventions (e.g., Cognitive Behavioral Treatment) in supporting long-term (1 to 3 year) abstinence from alcohol use. Randomized controlled trials (RCTs) comparing manualized AA/TSF to other clinical interventions showed improved rates of continuous abstinence at 12 months (by 21%: risk ratio (RR) 1.21), with this effect consistent at both 24 and 36 months. For percentage days abstinent, AA/TSF appeared to perform as well as other clinical interventions at 12 months, and better at 24 and 36 months. AA/TSF are also cost-effective, compared to alternative models. The benefits of AA and TSF were observed in rigorous trials, as well as less rigorous, non-randomized studies.

Quasi-experimental evaluations also support the efficacy of Narcotics Anonymous (NA) participation in the treatment of substance use problems. In a review paper, Sussman (2010) identified 11 prior evaluations that had examined the effects on teenagers of AA/NA attendance after discharge from formal treatment. These evaluations all found AA/NA attendance was strongly predictive of abstinence post-treatment.

Similar findings have been demonstrated in adults. Toumbourou et al. (2002) completed a 12-month follow-up of adult NA participants in Victoria, Australia ($N = 62$) and found higher levels of participation were associated with significantly reduced levels of hazardous alcohol use, and marijuana use, and non-significantly lower injecting drug use. Kelly et al. (2013) completed a 12-month follow-up with residential drug treatment clients in the USA ($N = 303$) and associated higher post-treatment NA participation with higher rates of abstinence. Gossop et al. (2008) followed US residential drug treatment clients ($N = 142$) for 5 years and found higher rates of opioid abstinence were associated with higher post-treatment NA participation.

Therapeutic communities offer an additional effective drug-free approach to substance abuse recovery (De Leon et al., 2020). Therapeutic communities are effective as a substance abuse treatment intervention, reducing substance-use and criminal activity, and improving mental health and social engagement (De Leon et al., 2020; Magor-Blatch et al., 2014).

Strategies to Improve the Integration of Abstinence-Based Substance Use Regulatory, Prevention, and Treatment and Recovery Interventions

It is essential that rigorously evaluated and efficient models are emphasized in public investments. This section outlines currently operating approaches for advancing abstinence-based regulatory and prevention interventions and integrating with compatible treatment and recovery approaches across large populations. Critical components are

that community attitudes and practices (social norms) that value abstinence are integrated using evidence-based approaches across population systems. In what follows, we present two approaches that achieve this, professional training and public health planning.

Professional Training Models build professional expertise to implement abstinence-based regulation and prevention and to integrate with treatment and recovery responses. The Universal Prevention, Treatment, and Recovery Curriculum (UPC) offers an international example of an integrated and highly feasible approach. The UPC was developed in recent years based on international collaboration between prevention research experts, the United Nations Office of Drugs and Crime and other partners (Miovský et al., 2019).

The UPC is initiated with training modules addressing prevention science, physiology and pharmacology. The curriculum modules then provide relevant training in the life course development of substance use and modifiable socioecological risk and protective factors in environments such as families, schools, the workplace, policing, neighborhoods, and the media. The UPC has been successfully integrated into professional training programs in Europe (Orte et al., 2022).

Evidence from a randomized trial in Peru demonstrated implementation of the UPC Prevention Curriculum was associated with reductions in student alcohol and tobacco use, while also improving school climate (Salazar & Bustamante, 2021). The UPC approach is integrated using social norms theory as a core driver of behavior change. Hence, a critical component is the establishment of social norms that are favorable to the prevention of substance use.

The importance of abstinent social norms is identified in the review by Kelly et al. (2020), which argued that an important mechanism explaining the effectiveness of AA was the fellowship with a community practicing abstinence. Health psychology has noted that substance use behavior change can be influenced by mentors and peers that model the desired substance use behavior (Hansen et al., 2020; White & Evans, 2013). White and Evans (2013) argued that employing recovered users within addiction treatment can serve to create enduring, equal, and reciprocal therapeutic relationships that support recovery.

Hansen et al. (2020) implemented a peer recovery coaching program in low socio-economic areas of the USA, with limited access to substance use treatment. Adults experiencing substance use disorders that were recruited into the program exhibited significant declines in depression, anxiety, and prescription drug use and improvements in stable housing and training or employment at 6-month follow-up (Hansen et al., 2020). These studies provide evidence for implementing recovered alumni and peer mentors in treatment recovery programs.

Public Health Planning Models use techniques such as community-based participatory research and economic modeling to plan and implement effective substance abuse prevention, regulatory, and treatment interventions across large populations. In the human development field these techniques have been used by agencies such as the WHO to design, advocate, and implement national approaches such as the Framework Convention on Tobacco Control that have guided country policy and planning efforts to globally prevent and reduce tobacco use. Community systems interventions have also been implemented and evaluated to reduce alcohol use and related problems (Porthé et al., 2021).

The Communities That Care prevention system provides a feasible public health planning framework for community coalitions to improve regulatory and developmental prevention programs across large populations. This process can also enhance links to treatment and recovery programs using the structured 5-phase process. Phase 1 of Communities That Care completes consultations to increase community solidarity and support for the benefits of a prevention focus. Phase 2 formalizes a community board to increase prevention and regulatory service investment. In phase 3, the local Communities That Care board complete a community needs assessment and set priorities to address identified risk factors for substance use, aggression, and other problems in children and young people. An analysis of existing prevention, treatment, and recovery organizations is completed to identify those that can increase investment in evidence-based prevention programs. A prevention service delivery plan is implemented in phase 4 and evaluated for community-wide benefits in phase 5. One focus of the Communities That Care process is on using training and intervention to measurably improve caring social bonds within each community.

A US community trial demonstrated that the implementation of Communities That Care led to increases in prevention investment which resulted in significant reductions in adolescent substance use and antisocial behavior and improved school outcomes. When adolescents were longitudinally followed into early adulthood this approach yielded a $12.88 return for each dollar invested (Kuklinski et al., 2021). The return was well over twice as great when the predicted downstream economic benefits of increased college completion were accounted.

Large community trials in Australia have demonstrated that adolescent alcohol use can be reduced by 10% and alcohol abstinence intentions significantly increased (Rowland et al., 2018) using the Communities That Care model to implement developmental prevention and regulatory interventions to reduce the sale and supply of alcohol to adolescents (Rowland et al., 2022a). The Australian Communities That Care implementation has been able to successfully integrate within treatment and recovery organizations to assist them to increase investment in prevention (Toumbourou et al, 2019). Evaluations of whole-community effects associate the Australian Communities That Care model with at least 8% annual reductions in child and youth hospitalization for intentional and unintentional injury (Berecki-Gisolf et al., 2020), and reductions in police-reported youth crime (5% annually) and violent crime (2% annually) (Rowland et al., 2022b) across large municipal populations.

The impact of the Communities That Care model in Australia is in part attributed to its success in increasing adolescent social bonding to community members with healthy attitudes and behaviors (Toumbourou et al., 2019). Adolescents that bond to healthy community role models adopt attitudes disapproving of substance use and are hence less likely to initiate tobacco, alcohol, or cannabis use (Hemphill et al., 2011).

Toumbourou (2016) has described how the Communities That Care model can be scaled up to equitably increase community levels of youth prosocial behavior and consequently reduce substance use, mental health problems, and anti-social behavior, while increasing healthy community bonds. This is achievable by coordinating increased youth participation in "beneficial action" approaches such as cross-age mentoring and tutoring. Programs of this type offer a win–win solution in universally increasing pro-social character and bonding while also preventing, treating, and reducing the development of anti-social behavior.

Conclusions and Recommendations

This commentary argues that public health benefits can be achieved by extending the success of abstinence-based prevention models to form the main stay of treatment and recovery programs. What needs to change to achieve this?

Firstly, we emphasize the importance of economic modeling and public health planning to identify equitable and effective community investment strategies. Research, simulation, consultation, and intervention design studies should further elaborate the features and potential benefits of different models of integrating prevention and treatment services within a defined community. Table 1 presents key population success indicators to guide evaluation. Available evidence should be reviewed to model, forecast, and compare the potential costs and benefits of alternative models for maximizing these indicators. This commentary advocates that abstinence-based prevention should be a primary focus to protect children, adolescents, and young adults and that treatment and recovery practices should integrate with this social norm, but empirical verification is essential. Community outcomes to be sought for adults through integrated service systems should include the reduction of substance use harm, and more comprehensive recovery in areas such as improved physical and mental health, improved social cohesion (indicated by reduced crime and violence), and economic prosperity.

Secondly, funding and policy support is required to continue to trial and advance alternative integrated system models (Stockings et al., 2018; Walmisley et al., 2024). Coalition-based prevention programs such as Communities That Care provide one effective example of an approach that invites community participation in planning evidence-based abstinence-focused prevention and regulatory approaches (Toumbourou et al., 2019). The Communities That Care approach has the capacity to be further adapted, trialed, and commercialized as a broader framework targeting adult prevention issues such as the sale, marketing, and regulation of substances in retail outlets, and in sporting, socialization (Toumbourou et al., 2014a), and workplace settings (Oesterle et al., 2023). Public health guidelines should be further developed to explain the benefits and feasibility of substance use abstinence and referral to services such as biopsychosocial pain management (Foster et al., 2018; Geneen et al., 2015; Ryan et al., 2024) and trauma-informed interventions (Han et al., 2021). Vested interests that market and sell substances should be tackled by public health coalitions to increase evidence-based regulation (Rowland et al., 2022a).

Thirdly, abstinence-based treatment should be expanded by increasing funding for options such as therapeutic communities, Facilitated Twelve Step models, peer recovery coaching and counselor referrals to AA and NA groups. Work force opportunities should include recovered users who provide social norms reinforcing abstinence (Hansen et al., 2020; White & Evans, 2013). Issues of safety should be addressed within recovery programs through peer coaching (Hansen et al., 2020) and fellowship guidelines and practices (White & Evans, 2013). Recovery alumni and other community stakeholders should receive information and advice on effective adolescent substance prevention practices, including supply and demand reduction models to encourage constructive innovation. The movement to include consumer perspectives in managing substance treatment programs should be embraced to increase opportunities for recovery alumni to influence services and find employment (Goodhew et al., 2019).

Fourthly, abstinence-based prevention and treatment should be targeted to address community inequalities, embrace diversity, and enhance inclusion. Heavier rates of both

adolescent and adult alcohol and drug use continue in Australia in families and communities experiencing socio-economic disadvantage and in regional and remote locations (Toumbourou et al., 2018). In places with heavy family and community alcohol and drug use, children and adolescents are more likely to experience trauma and stress (Toumbourou, 2016). Recovery peer coaching and fellowship models may offer cost-effective approaches for addressing equity and inclusion in settings with high levels of both disadvantage and substance use problems (Kelly et al., 2020). As relevant to prevention, the current review notes considerable evidence that social connections with abstinent adults have protective effects in reducing the development of adolescent substance use.

Acknowledgements We acknowledge the contribution of Mr Jay Varcoe who assisted an earlier version of this paper.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions. Dalgarno Institute provided funding support to Deakin University for research assistants.

Data Availability There is no data collection associated with this commentary paper.

Declarations

Competing interests/Conflict of interest John W Toumbourou has an approved conflict of interest management plan at Deakin University in relation to his voluntary Directorship of the not-for-profit company Communities That Care Ltd. that is mentioned in this manuscript. All other authors declare no competing interests.

References

Anderson, B. O., Berdzuli, N., Ilbawi, A., Kestel, D., Kluge, H. P., Krech, R., Mikkelsen, B., Neufeld, M., Poznyak, V., Rekve, D., Slama, S., Tello, J., & Ferreira-Borges, C. (2023). Health and cancer risks associated with low levels of alcohol consumption. *The Lancet Public Health,8*(1), e6–e7. https://doi.org/10.1016/S2468-2667(22)00317-6

Athanassiou, M., Dumais, A., Zouaoui, I., & Potvin, S. (2023). The clouded debate: A systematic review of comparative longitudinal studies examining the impact of recreational cannabis legalization on key public health outcomes. *Frontiers in Psychiatry,14*, Article 1060656. https://doi.org/10.3389/fpsyt.2022.1060656

Bailey, J. A., Le, V. T., McMorris, B. J., Merrin, G. J., Heerde, J. A., Batmaz, E. A., & Toumbourou, J. W. (2024). Longitudinal associations between adult-supervised drinking during adolescence and alcohol misuse from ages 25–31 years: A comparison of Australia and the United States. *Addictive Behaviors,153*, Article 107984. https://doi.org/10.1016/j.addbeh.2024.107984

Becker, T. D., Arnold, M. K., Ro, V., Martin, L., & Rice, T. R. (2021). Systematic review of electronic cigarette use (vaping) and mental health comorbidity among adolescents and young adults. *Nicotine & Tobacco Research,23*(3), 415–425. https://doi.org/10.1093/ntr/ntaa171

Berecki-Gisolf, J., Rowland, B., Reavley, N., Minuzzo, B., & Toumbourou, J. (2020). Evaluation of community coalition training effects on youth hospital-admitted injury incidence in Victoria, Australia: 2001–2017. *Injury Prevention,26*(5), 463–470. https://doi.org/10.1136/injuryprev-2019-043386

Beseran, E., Pericàs, J. M., Cash-Gibson, L., Ventura-Cots, M., Porter, K. M. P., & Benach, J. (2022). Deaths of despair: A scoping review on the social determinants of drug overdose, alcohol-related liver

disease and suicide. *International Journal of Environmental Research and Public Health,19*(19), Article 12395. https://doi.org/10.3390/ijerph191912395

Borland, R., & Yong, H.-H. (2018). Tobacco control: Preventing smoking and facilitating cessation. In E. B. Fisher, L. D. Cameron, A. J. Christensen, & et al. (Eds.), Principles and concepts of behavioral medicine: A global handbook (pp. 771–805). Springer New York.

Catalano, R. F., Fagan, A. A., Gavin, L. E., Greenberg, M. T., Irwin, C. E., Ross, D. A., & Shek, D. T. (2012). Worldwide application of prevention science in adolescent health. *Lancet,379*(9826), 1653–1664. https://doi.org/10.1016/S0140-6736(12)60238-4

Ciobanu, L. G., Ferrari, A. J., Erskine, H. E., Santomauro, D. F., Charlson, F. J., Leung, J., Amare, A. T., Olagunju, A. T., Whiteford, H. A., & Baune, B. T. (2018). The prevalence and burden of mental and substance use disorders in Australia: Findings from the Global Burden of Disease Study 2015. *Australian and New Zealand Journal of Psychiatry, 52*(5), 483–490. https://doi.org/10.1177/0004867417740278

Coomber, K., Baldwin, R., Wilson, C., McDonald, L., Taylor, N., Callinan, S., Wilkinson, C., Toumbourou, J. W., Chikritzhs, T., & Miller, P. G. (2024). Test purchasing of same day and rapid online alcohol home delivery in two Australian jurisdictions. *Journal of Studies on Alcohol and Drugs*. https://doi.org/10.15288/jsad.23-00223

De Leon, G., Perfas, F. B., Joseph, A., & Bunt, G. (2020). Therapeutic communities for addictions: Essential elements, cultural, and current issues. In Textbook of addiction treatment: International perspectives (pp. 697–707). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-36391-8_48

Epstein, M., Bailey, J.A., Catalano, R.F., Furlong, M., & Toumbourou, J.W. (2019). Does adolescent alcohol harm minimization policy exposure reduce young adult alcohol problems? A longitudinal comparison of Washington State, United States, and Victoria, Australia. *Journal of Adolescent Health, 66*, 713–718. https://doi.org/10.1016/j.jadohealth.2019.08.019

Evans-Whipp, T. J., Bond, L., Toumbourou, J. W., & Catalano, R. F. (2007). School, parent, and student perspectives of school drug policies. *Journal of School Health,77*(3), 138–146. https://doi.org/10.1111/j.1746-1561.2007.00183.x

Foster, N. E., Anema, J. R., Cherkin, D., Chou, R., Cohen, S. P., Gross, D. P., Ferreira, P. H., Fritz, J. M., Koes, B. W., Peul, W., Turner, J. A., Maher, C. G., Lancet Low Back Pain Series Working Group. (2018). Prevention and treatment of low back pain: Evidence, challenges, and promising directions. *Lancet, 391*(10137), 2368–2383. https://doi.org/10.1016/S0140-6736(18)30489-6

Geneen, L. J., Martin, D. J., Adams, N., Clarke, C., Dunbar, M., Jones, D., McNamee, P., Schofield, P., Smith, B.H. (2015). Effects of education to facilitate knowledge about chronic pain for adults: A systematic review with meta-analysis. *Systematic Reviews, 4*(1), Article 132. https://doi.org/10.1186/s13643-015-0120-5

Goldfeld, S., Bryson, H., Mensah, F., Price, A., Gold, L., Orsini, F., Kenny, B., Perlen, S., Bohingamu Mudiyanselage, S., Dakin, P., Bruce, T., Harris, D., & Kemp, L. (2022). Nurse home visiting to improve child and maternal outcomes: 5-year follow-up of an Australian randomised controlled trial. *PLoS One,17*(11), Article e0277773. https://doi.org/10.1371/journal.pone.0277773

Goodhew, M., Stein-Parbury, J., & Dawson, A. (2019). Consumer participation in drug treatment: A systematic review. *Drugs and Alcohol Today,19*(2), 97–112. https://doi.org/10.1108/DAT-05-2018-0023

Gossop, M., Stewart, D., & Marsden, J. (2008). Attendance at Narcotics Anonymous and Alcoholics Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: A 5-year follow-up study. *Addiction,103*(1), 119–125. https://doi.org/10.1111/j.1360-0443.2007.02050.x

Hall, W., Stjepanović, D., Caulkins, J., Lynskey, M., Leung, J., Campbell, G., & Degenhardt, L. (2019). Public health implications of legalising the production and sale of cannabis for medicinal and recreational use. *Lancet,394*(10208), 1580–1590. https://doi.org/10.1016/S0140-6736(19)31789-1

Han, H. R., Miller, H. N., Nkimbeng, M., Budhathoki, C., Mikhael, T., Rivers, E., Gray, J. L., Trimble, K., Chow, S., & Wilson, P. (2021). Trauma informed interventions: A systematic review. *PLoS ONE, 16*(6), e0252747. https://doi.org/10.1371/journal.pone.0252747

Hansen, M. A., Modak, S., McMaster, S., Zoorob, R., & Gonzalez, S. (2020). Implementing peer recovery coaching and improving outcomes for substance use disorders in underserved communities. Journal of Ethnicity in Substance Abuse, 1–14. https://doi.org/10.1080/15332640.2020.1745532

Hemphill, S. A., Heerde, J. A., Herrenkohl, T. I., Patton, G. C., Toumbourou, J. W., & Catalano, R. F. (2011). Risk and protective factors for adolescent substance use in Washington State, the United States and Victoria, Australia: A longitudinal study. *Journal of Adolescent Health, 49*(3), 312–320. https://doi.org/10.1016/j.jadohealth.2011.02.001

Hser, Y. I., Evans, E., Grella, C., Ling, W., & Anglin, D. (2015). Long-term course of opioid addiction. *Harvard Review of Psychiatry,23*(2), 76–89. https://doi.org/10.1097/HRP.0000000000000052

Hutchinson. D., Macdonald, J.A., Hallam, B., Leung, R.K., Toumbourou, J.W., McGee, R., Tooley, G., Hemphill, S.A., Skouteris, H., and Olsson, C.A. (2016). Care orientation in the teens as a predictor of young adult psychosocial adjustment. *Journal of Happiness Studies, 17*(5), 2051–2076. https://doi.org/10.1007/s10902-015-9685-x.

Kelly, J. F., Humphreys, K., & Ferri, M. (2020). Alcoholics anonymous and other 12-step programs for alcohol use disorder. *Cochrane Database of Systematic Reviews*. https://doi.org/10.1002/14651858.CD012880.pub2

Kelly, J. F., Stout, R. L., & Slaymaker, V. (2013). Emerging adults' treatment outcomes in relation to 12-step mutual-help attendance and active involvement. *Drug and Alcohol Dependence,129*(1–2), 151–157. https://doi.org/10.1016/j.drugalcdep.2012.10.005

Kuklinski, M. R., Oesterle, S., Briney, J. S., & Hawkins, J. D. (2021). Long-term impacts and benefit–cost analysis of the communities that care prevention system at age 23, 12 years after baseline. *Prevention Science,22*(4), 452–463. https://doi.org/10.1007/s11121-021-01218-7

Kuppens, S., Moore, S. C., Gross, V., Lowthian, E., & Siddaway, A. P. (2020). The enduring effects of parental alcohol, tobacco, and drug use on child well-being: A multilevel meta-analysis. *Development and Psychopathology,32*(2), 765–778. https://doi.org/10.1017/S0954579419000749

Livingston, M., Callinan, S., Vashishtha, R., Yuen, W. S., & Dietze, P. (2022). Tracking the decline in Australian adolescent drinking into adulthood. *Addiction, 117*(5), 1273–1281. https://doi.org/10.1111/add.15720

Magor-Blatch, L., Bhullar, N., Thomson, B., & Thorsteinsson, E. (2014). A systematic review of studies examining effectiveness of therapeutic communities. *Therapeutic Communities: The International Journal of Therapeutic Communities,35*(4), 168–184.

Manthey, J., Hassan, S. A., Carr, S., Kilian, C., Kuitunen-Paul, S., & Rehm, J. (2021). What are the economic costs to society attributable to alcohol use? A systematic review and modelling study. *PharmacoEconomics, 39*(7), 809–822. https://doi.org/10.1007/s40273-021-01041-6

McCabe, S. E., McCabe, V. V., & Schepis, T. S. (2025). US children living with a parent with substance use disorder. *JAMA Pediatrics,179*(7), 797–799. https://doi.org/10.1001/jamapediatrics.2025.0828

McMorris, B. J., Catalano, R. F., Kim, M. J., Toumbourou, J. W., & Hemphill, S. A. (2011). Influence of family factors and supervised alcohol use on adolescent alcohol use and harms: Similarities between youth in different alcohol policy contexts. *Journal of Studies on Alcohol and Drugs,72*(3), 418–428. https://doi.org/10.15288/jsad.2011.72.418

McMorris, B. J., Hemphill, S. A., Toumbourou, J. W., Catalano, R. F., & Patton, G. C. (2007). Prevalence of substance use and delinquent behavior in adolescents from Victoria, Australia and Washington State, United States. *Health Education & Behavior,34*(4), 634–650. https://doi.org/10.1177/1090198106286272

Mendelsohn, C. P., Wodak, A., Hall, W., & Borland, R. (2022). A critical analysis of 'electronic cigarettes and health outcomes: Systematic review of global evidence.' *Drug and Alcohol Review,41*(7), 1493–1498. https://doi.org/10.1111/dar.13515

Merrin, G. J., Bailey, J. A., Kelly, A. B., Le, V. T., Heerde, J. A., Doery, E., Batmaz, E. A., & Toumbourou, J. W. (2024) Continuity and change in substance use patterns during the transition from adolescence to young adulthood: Examining changes in social roles. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-024-01342-9

Miovský, M., Vondrová, A., Gabrhelík, R., Sloboda, Z., Libra, J., & Lososová, A. (2019). Incorporation of universal prevention curriculum into established academic degree study programme: Qualitative process evaluation. *Central European Journal of Public Health,27*(Suppl), S74–S82. https://doi.org/10.21101/cejph.a5952

National Health and Medical Research Council (2020) Australian guidelines to reduce health risks from drinking alcohol. Canberra, Australia: National Health and Medical Research Council. https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-reduce-health-risks-drinking-alcohol

Oesterle, S., Bailey, J. A., Catalano, R. F., Epstein, M., Evans-Whipp, T. J., & Toumbourou, J. W. (2023). Alcohol-tolerant workplace environments are a risk factor for young adult alcohol misuse on and off the job in Australia and the United States. *International Journal of Environmental Research and Public Health,20*(18), Article 6725. https://doi.org/10.3390/ijerph20186725

Orte, C., Amer, J., Gomila, A. M., & Pascual, B. (2022). Combining the European prevention curriculum (EUPC) and universal treatment curriculum (UTC) in a Master's Degree in addictions. *Addictology/Adiktologie, 22*(1), 7–12. https://doi.org/10.35198/01-2022-001-0006

Parmar, J., McComb, C., House, P., & Barnes, G. C. (2020). Breath tests in Western Australia: Examining the economic dividends and effectiveness of general deterrence. *Accident Analysis and Prevention,136*, Article 105430. https://doi.org/10.1016/j.aap.2019.105430

Pawar, A. K. S., Firmin, E. S., Wilens, T. E., & Hammond, C. J. (2024). Systematic review and meta-analysis: Medical and recreational cannabis legalization and cannabis use among youth in the United States. *Journal of the American Academy of Child and Adolescent Psychiatry,63*(11), 1084–1113. https://doi.org/10.1016/j.jaac.2024.02.016

Porthé, V., García-Subirats, I., Ariza, C., Villalbí, J. R., Bartroli, M., Júarez, O., Díez, E. (2021). Community-based interventions to reduce alcohol consumption and alcohol-related harm in adults. *Journal of Community Health, 46*(3), 565–576. https://doi.org/10.1007/s10900-020-00898-6.

Quigg, Z., Hughes, K., Butler, N., Ford, K., Canning, I., & Bellis, M. A. (2018). Drink less enjoy more: Effects of a multi-component intervention on improving adherence to, and knowledge of, alcohol legislation in a UK nightlife setting. *Addiction,113*(8), 1420–1429. https://doi.org/10.1111/add.14223

Reece, A. S., & Hulse, G. K. (2022). Novel insights into potential cannabis-related cancerogenesis from recent key whole epigenome screen of cannabis dependence and withdrawal: Epidemiological commentary and explication of Schrott et al. *Genes,14*(1), Article 32. https://doi.org/10.3390/genes14010032

Rowland, B., Kelly, A. B., Mohebbi, M., Kremer, P., Abrahams, C., Abimanyi-Ochom, J., Carter, R., Williams, J., Smith, R., Osborn, A., Hall, J., Hossein, T., Renner, H., & Toumbourou, J. W. (2022b). Evaluation of communities that care - effects on municipal youth crime rates in Victoria, Australia: 2010–2019. *Prevention Science, 23*(1), 24–35. https://doi.org/10.1007/s11121-021-01297-6

Rowland, B., Hall, J., Kremer, P., Miller, P., & Toumbourou, J. W. (2017). Underage purchasing of alcohol from packaged liquor outlets: An Australian study. *Health Promotion International, 32*(5), 790–799. https://doi.org/10.1093/heapro/daw007

Rowland, B. C., Kremer, P., Williams, J., Kelly, A. B., Patton, G., & Toumbourou, J. W. (2022a). A component evaluation of a randomized control community intervention to reduce adolescent alcohol use in Australia. *Prevention Science,23*(1), 36–47. https://doi.org/10.1007/s11121-021-01310-y

Rowland, B. C., Williams, J., Smith, R., Hall, J. K., Osborn, A., Kremer, P., Kelly, A. B., Leslie, E., Patton, G., Mohebbi, M., & Toumbourou, J. W. (2018). Social marketing and community mobilisation to reduce underage alcohol consumption in Australia: A cluster randomised community trial. *Preventive Medicine,113*, 132–139. https://doi.org/10.1016/j.ypmed.2018.02.032

Ryan, C. G., Karran, EL., Wallwork, S. B., Pate, J. W., O'Keeffe, M., Fullen, B. M,. Livadas, N., Jones, N., Toumbourou, J. W., Gilchrist, P., Cameron, P. A., Fatoye, F., Ravindran, D., Lorimer Moseley, G. (2024). We are all in this together - whole of community pain science education campaigns to promote better management of persistent pain. *The Journal of Pain, S1526–5900*(23), 00597–7. https://doi.org/10.1016/j.jpain.2023.10.024.

Salazar, F., & Bustamante, I. V. (2021). Findings of the implementation of the Universal Prevention Curricula (UPC) in Peru. In International Approaches to Promoting Social and Emotional Learning in Schools (pp. 73–89). Routledge.

Smart, R., & Pacula, R. L. (2019). Early evidence of the impact of cannabis legalization on cannabis use, cannabis use disorder, and the use of other substances: Findings from state policy evaluations. *The American Journal of Drug and Alcohol Abuse, 45*(6), 644–663. https://doi.org/10.1080/00952990.2019.1669626

Stockings, E., Bartlem, K., Hall, A., Hodder, R., Gilligan, C., Wiggers, J., Sherker, S., & Wolfenden, L. (2018). Whole-of-community interventions to reduce population-level harms arising from alcohol and other drug use: A systematic review and meta-analysis. *Addiction, 113*(11), 1984–2018. https://doi.org/10.1111/add.14277

Stubbs, T., White, V. M., Kong, M., & Toumbourou, J. W. (2022). Uncovering the advertising and promotional strategies of tobacco companies in Cambodia: Recall of below-the-line marketing among young male smokers. *Tobacco Control*. https://doi.org/10.1136/tobaccocontrol-2021-057063

Sussman, S. (2010). A review of Alcoholics Anonymous/Narcotics Anonymous programs for teens. *Evaluation and the Health Professions, 33*(1), 26–55. https://doi.org/10.1177/0163278709356186

Tanner-Smith, E. E., & Lipsey, M. W. (2015). Brief alcohol interventions for adolescents and young adults: A systematic review and meta-analysis. *Journal of Substance Abuse Treatment*. https://doi.org/10.1016/j.jsat.2014.09.001

Toumbourou, J. W. (2016). Beneficial action within altruistic and prosocial behavior. *Review of General Psychology, 20*(3), 245–258. https://doi.org/10.1037/gpr0000081

Toumbourou, J. W., Hamilton, M., U'Ren, A., Stevens-Jones, P., & Storey, G. (2002). Narcotics anonymous participation and changes in substance use and social support. *Journal of Substance Abuse Treatment, 23*(1), 61–66. https://doi.org/10.1016/S0740-5472(02)00243-X

Toumbourou, J. W., Stockwell, T., Neighbours, C., Marlatt, G. A., Sturge, J., & Rehm, J. (2007). Interventions to reduce harm associated with adolescent substance use. *The Lancet, 369*(9570), 1391–1401. https://doi.org/10.1016/S0140-6736(07)60369-9

Toumbourou, J. W., Hemphill, S. A., McMorris, B. J., Catalano, R. F., & Patton, G. C. (2009). Alcohol use and related harms in school students in the USA and Australia. *Health Promotion International, 24*(4), 373–382. https://doi.org/10.1093/heapro/dap037

Toumbourou, J. W., Douglas Gregg, E., Shortt, A. L., Hutchinson, D. M., & Slaviero, T. M. (2013). Reduction of adolescent alcohol use through family-school intervention: A randomized trial. *Journal of Adolescent Health, 53*(6), 778–784. https://doi.org/10.1016/j.jadohealth.2013.07.005

Toumbourou, J. W., Olsson, C., Rowland, B., Renati, S., & Hallam, B. (2014a). Health psychology intervention in key social environments to promote adolescent health. *Australian Psychologist, 49*, 66–74. https://doi.org/10.1111/ap.12043

Toumbourou, J. W., Kypri, K., Jones, S., & Hickie, I. (2014b). Should the legal age for alcohol purchase be raised to 21? *Medical Journal of Australia, 200*(10), 568–570. https://doi.org/10.5694/mja13.10465

Toumbourou, J. W., Rowland, B., Ghayour-Minaie, M., Sherker, S., Patton, G. C., & Williams, J. (2018). Student survey trends in reported alcohol use and influencing factors in Australia. *Drug and Alcohol Review, 37*(S1), S58–S66. https://doi.org/10.1111/dar.12645

Toumbourou, J. W., Rowland, B., Williams, J., Smith, R., & Patton, G. C. (2019). Community intervention to prevent adolescent health behavior problems: Evaluation of communities that care in Australia. *Health Psychology, 38(*6), 536–544. https://doi.org/10.1037/hea0000735

Toumbourou, J. W., Heerde, J., Kelly, A., & Bailey, J. (2021). Marijuana use. In W. O'Donohue & M. Zimmermann (Eds.), *Handbook of evidence-based prevention of behavioral disorders in integrated care*. Springer. https://doi.org/10.1007/978-3-030-83469-2_11

Toumbourou, J. W., Westrupp, E. M., Benstead, M., Klettke, B., Clancy, E. M., Kelly, A. B., Reavley, N., & Rowland, B. (2024). Using effective community coalitions to prevent mental and behavioral disorders on a national scale. *Mental Health & Prevention, 33*, 200322. https://doi.org/10.1016/j.mhp.2024.200322

Veliz, P. T., Boyd, C. J., Evans-Polce, R. J., & McCabe, S. E. (2020). Increases in the prevalence of frequent e-cigarette use among adolescents. *American Journal of Preventive Medicine,59*(1), 146–147. https://doi.org/10.1016/j.amepre.2020.02.004

Walmisley, U., De Jong, M., George, A., Okeyo, I., Späth, C., Siegfried, N., Harker, N., Tomlinson, M., & Doherty, T. (2024). Whole-of-community and intersectoral interventions that address alcohol-related harms: A scoping review. *Global Public Health,19*(1), Article 2357211. https://doi.org/10.1080/17441692.2024.2357211

White, W. L., & Evans, A. C. (2013). The recovery agenda: The shared role of peers and professionals. *Public Health Reviews,35*(4), Article 4. https://doi.org/10.1007/BF03391703