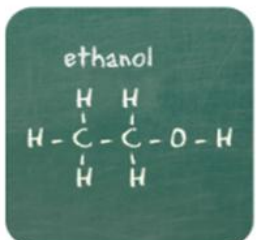




ALICE RAP

Science Findings

Summarising the results of 1000 months of academic endeavour over the 5-year ALICE RAP project



ALICE RAP Science Findings

The 55 ALICE RAP Science Findings, which give a simple account of the main results coming out of the [different lines of research](#) undertaken in the project, have been grouped into 7 themes (see table of contents below). Each Science Finding gives a summary of the results and links to further reading and the more detailed [ALICE RAP deliverable reports](#).

How to use the AR Science Findings:

The AR Science Findings have been designed to summarise the results of the project and to lead you into the many ALICE RAP research studies and outputs.

Browse the AR Science Findings titles using the table of contents below, or [search for a specific term in the AR Science Findings library](#).

Acknowledgement and Disclaimer:

The research leading to these results or outcomes has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013), under Grant Agreement n° 266813 - Addictions and Lifestyle in Contemporary Europe – Reframing Addictions Project (ALICE RAP – www.alicerap.eu).

Participant organisations in ALICE RAP can be seen at <http://www.alicerap.eu/about-alice-rap/partner-institutions.html>.

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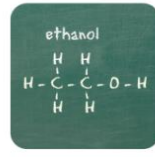
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An increased convergence of 'addiction' policies in EU Member States has been found, with some interesting similarities of policies in the fields of licit and illicit drugs

**trends
 addiction policies
 forces
 decision making**

In order to analyse forces and factors influencing the development of the governance of 'addictions', three current drug policy trends found in Europe were selected:

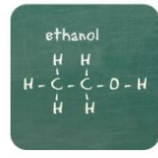
- The wider acceptance of harm reduction.
- The decriminalisation of use of illicit drugs (and possession of small quantities for personal use), accompanied by a tougher, more punitive approach to the production and trafficking of illicit drugs.
- The growing interest in exploring the feasibility of regulation as drug control instrument.

Case studies were performed based on a purposive sample of five EU Member States (France, the Netherlands, Slovenia, Spain and UK), representing different geographical regions and different governance approaches. The scope of the study was limited to heroin, cannabis, tobacco and gambling. We focussed on identifying important factors that influence policy decision making and shape the implementation of policy. Our aim was to explore the selected policy trends to identify important forces and factors that influence policy decision making and shape the implementation of policy in the field of drug use and gambling. Some important elements in our conclusions were:

- Regarding the process of convergence of policies in the EU: All three trends in the illicit drugs field show a primarily bottom-up driven process in the early stages, which - in the cases of the wider implementation of harm reduction and decriminalisation of use - later turned into a process where top-down forces played a dominant role.
- Regarding the content: All three convergence trends we analysed can be understood as paradigm changes, as the emergence of a new consensus among influential stakeholders, a prevailing perception of how elements of the 'drugs problem' have to be explained. Well-being might be a possible alternative for the currently prevailing health (illness) paradigm.
- Regarding the stakeholders: Our case studies show that besides politicians and policymakers three stakeholders played a decisive role in the decision making process: science and research, the supply lobby and social movements. Social movements and science played a key role in challenging dominant paradigms, functioning as facilitators of changes.
- Regarding the context: historical, economic, political and social-cultural factors have proven decisive in determining the influence of stakeholders or of specific policy content in the decision making process. Contextual factors that had a major impact on the policy changes in the field of illicit drugs seem to have been societal changes, the 'social mood' in societies, and 'uncertainties' about the approach to choose in a changing policy environment.

READ MORE

Trautmann F et al. (2014): *Description and analysis of addiction governance practices - Understanding changes in governance practice*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 14.2](#)



Policy scaling tools, which translate national addiction policies into numbers and measure how strict and/or comprehensive they are, show that there are no unified and integrated addiction policies implemented throughout Europe

addiction policies
**monitoring
 scales**

Policy scales have been used for many decades measuring the strictness and comprehensiveness of alcohol and tobacco policies (Joossens & Raw 2014; Karlsson, Lindeman & Österberg 2012). A brand new scale to measure gambling policies developed within the Alice Rap project, together with updated alcohol and tobacco scales, offered an opportunity to compare the outcomes and results for how these addictive substances and behaviours are governed in Europe.

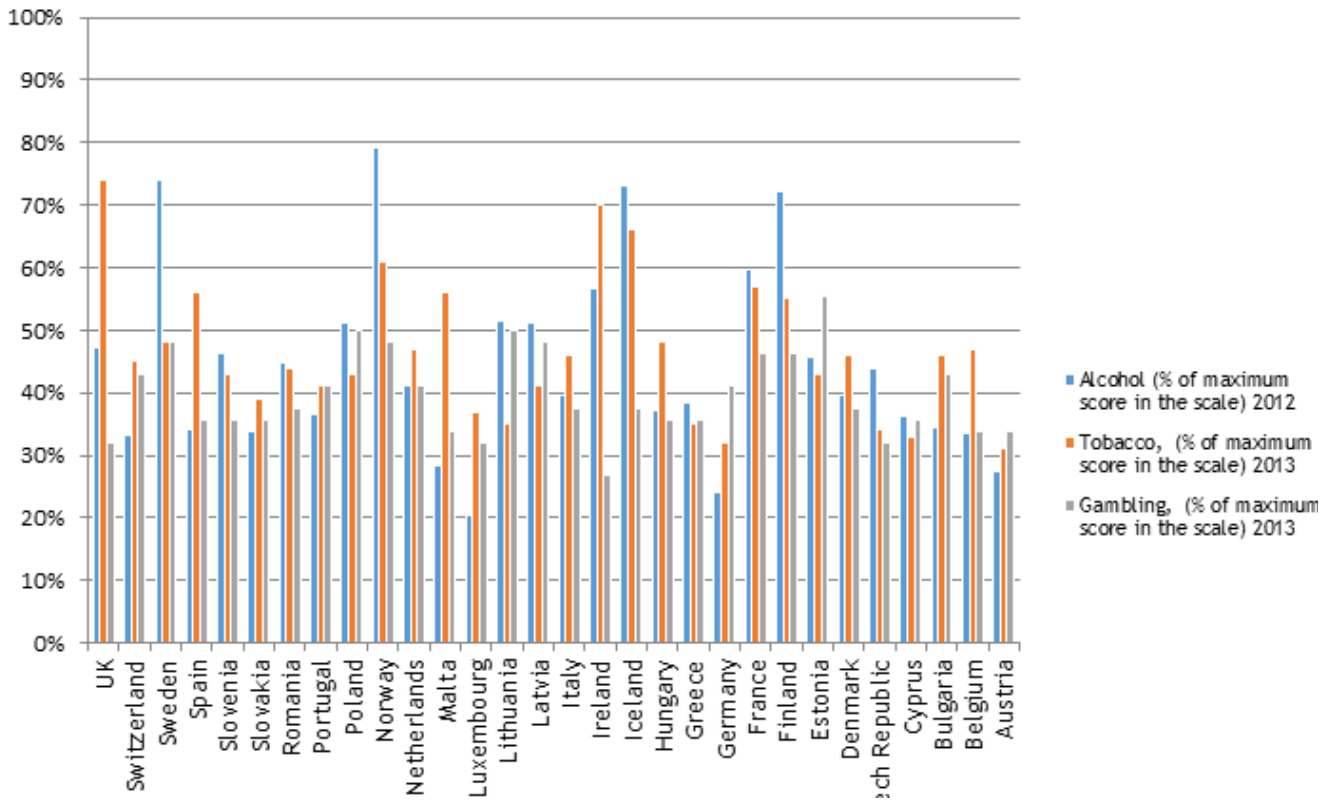


Figure: Relative gambling, tobacco and alcohol policy scores

When comparing alcohol, tobacco and gambling policies with the help of the policy scales, a picture of the addiction policy field in Europe took shape and bivariate correlation analysis showed that a statistically significant correlation was found between:

- Alcohol policies and tobacco policies
- Alcohol policies and gambling policies

But not between tobacco and gambling policies. However, it seems more accurate to say that countries tend to combine liberal and strict policy measures for the different addictive substances and behaviors as they see fit, rather than speaking of an integrated and unified addiction policy including all substances and behaviours.

In addition to these three scales, a policy scale for illicit drugs was created, but due to the illegal status of the substances measured it could not be constructed in the same way as the scales for alcohol, tobacco and gambling. The drug scale ended up being strictly descriptive in nature, and therefore left out of the comparison above.

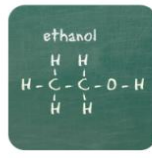
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Lindeman, M., Karlsson, T. & Österberg, E. (2015): Policy Scales. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 14.1](#)

Karlsson, T., Lindeman, M. & Österberg, E. (2012): Does alcohol policy make any difference? Scales and consumption. In: Anderson P, Braddick F, Reynolds J & Gual A eds. (2012) *Alcohol Policy in Europe: Evidence from AMPHORA*. 2nd ed, pp. 17-25. [The AMPHORA project](#). ISBN: 978-84-695-7411-9.

Joossens, L. & Raw, M. (2014): *The Tobacco Control Scale 2013 in Europe*. Brussels: Association of European Cancer Leagues

The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Comparative analyses of historical and conceptual developments in Denmark, Finland, and Sweden show differences in the drug policy agenda and governance, despite fundamental similarities in these Nordic welfare states.

Drug policy agenda
Nordic countries
welfare
conceptualisation

This piece of research undertook a comparative analysis of how drug users and drug use are conceptualized and managed in Denmark, Finland, and Sweden. The Nordic countries are often described as quite similar welfare states, with common characteristics and ideologies; but this study has demonstrated that very different policies can be adopted by similar political systems to address similar conditions and issues in society.

The present-day drug policies of Denmark, Finland, and Sweden have a common basis in a conceptualization of ‘the drug problem’ as a *social* problem that should be managed primarily through social reform and various kinds of social expertise. However, scrutinizing the historical and conceptual developments in each country, and comparing 3 themes - *Sanctions against drug users, coercive treatment, and medical substitution treatment* - we find that:

- In both Finland and Sweden, the welfare approach to conceptualizing and managing drug problems was coupled with a conception of drug use and drug users as ‘alien’ to society.
- In Denmark, the welfare approach rested upon an understanding of drug use and drug users as part of society, as a ‘normal’ social problem.
- There are, however, recent signs of convergence between the drug policies of these three Nordic countries in regard to all three themes

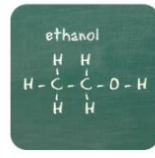
Overall the study shows how similar welfare systems conceptualize drug use and users according to specific national developments, traditions, and actors influencing the drug policy agenda.

READ MORE

Bjerge B., Houborg E., Edman J. & Perälä R. (2016): Chapter 4: Concepts and policies directed at drug use in Denmark, Finland, and Sweden. In [Hellman, M., Berridge, V., Mold A., & Duke, K. \(eds.\) Concepts of Addictive Substances Across Time and Place. Oxford: Oxford University Press.](#)

Edman, J. & Olsson, B. (2014). [The Swedish drug problem: conceptual understanding and problem handling 1839–2011. Nordic Studies on Alcohol and Drugs, 31\(5–6\).](#)

Houborg, E. (2014). [Construction and handling of drug problems in Denmark from the 1870s to the 1980s. Nordic Studies on Alcohol and Drugs, 31\(5-6\), 527-550.](#)



Governance of addictions in Europe can be classified into four typologies based on the strategy of their policies and the organizational structure of their governments

policy strategy
 organizational structure
typologies
 governance of addictions

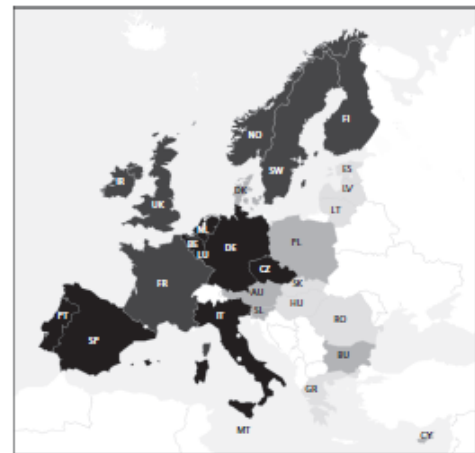
Europe has 4 different typologies of governance of addictions. This result is based on an analysis that takes into account:

- (1) The strategies determining addiction policies
- (2) The organizational structures designed to implement the policies

Model 1 gathers eight countries whose strategy is focused on illegal substances, i.e. cannabis and heroin. They mostly have a well-being and relational management strategy combined with a comprehensive structure that involves different stakeholders. They have decriminalized the possession of illegal substances (mostly cannabis) and have innovative harm reduction policies. Model 2 includes six countries which have focused their national policies on regulating legal substances, especially tobacco and alcohol. Similarly to Model 1, they promote well-being and have complex and inclusive organization structures.

Model 3 includes a heterogeneous group of countries from the socioeconomic point of view. Their particularity is that they can be considered countries in transition from Model 4 to either Model 1 or 2. Model 4 countries have a traditional approach to addictions. They do not have a public health approach and the ministry responsible to tackle addictions is the ministry of the interior. The organizational structure is simple and the government does not facilitate the involvement other public, private and nonprofit stakeholders.

Based on this analysis, most European countries are heading towards an ideal model whose main focus is public health and thus the strategy is to deal in a comprehensive way both with legal and illegal substances. To avoid inconsistencies, collaborative governance is needed (both inside multilevel governance in cross cutting issues within structures; and outside the public sector in collaboration with stakeholders). However, none of the 4 models presented has yet achieved this ideal model of governance of addictions.



Model 1: Trendsetters in illicit substances
 Model 2: Regulators of legal substances
 Model 3: Transitioning model
 Model 4: Traditional approach

AU	Austria	FI	Finland	LV	Latvia	PT	Portugal
BE	Belgium	FR	France	LT	Lithuania	RO	Romania
BG	Bulgaria	DE	Germany	LU	Luxemburg	SK	Slovakia
CY	Cyprus	GR	Greece	MT	Malta	SL	Slovenia
CZ	Czech Republic	HU	Hungary	NL	Netherlands	SP	Spain
DK	Denmark	IR	Ireland	NO	Norway	SW	Sweden
ES	Estonia	IT	Italy	PL	Poland	UK	United Kingdom

* These abbreviations for the countries are used for the figures throughout this book.

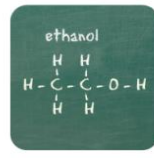
READ MORE

Segura, L., Albareda, A., Ysa, T., Colom, J., Ramon, A., Carrión, M. & Fernández-i-Marín, X. (2013): *Governance view. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP)*: [Deliverable 13.1](#)

Ysa, T., Colom, J., Albareda, A., Ramon, A., Carrión, M., & Segura, L. (2014): *Governance of Addictions: European Public Policies*. Oxford, United Kingdom: Oxford University Press

Ysa, T., Albareda, A. & Forberger, S. (2014): [What is Governance?](#) In Peter Anderson, Gerhard Bühringer and Joan Colom (eds.) *Reframing addictions: policies, processes and pressures*. The ALICE RAP project, p. 8-16

The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Although evidence supporting young people's addictions policies is accumulating, the field is underdeveloped compared to adult orientated actions. Currently, for many areas of concern it is difficult to make strong evidence based recommendations to EU policy makers on effective policy actions for young people

Young People
 Policy options
 evaluation
 framework
 addiction

This work sought to develop a framework to better understand policy options responding to young people's addictive behaviours in relation to controlled drugs, alcohol, tobacco, and gambling. The framework was developed through a combination of policy mapping, expert surveys, analysis of policy scales, and systematic review of evidence of effectiveness of interventions. Particular attention was paid to how policies for young people were developed (including the role of scientific evidence and consultation with stakeholders and target groups), implemented, assessed for impact, and what outcomes were specified (e.g. simple measures of participation in targeted behaviors vs broader outcomes related to health and wellbeing).

Our findings suggested that legislation (e.g. drugs laws) and general population addiction or substance use policies represented the key documents for young people, but we found few examples of policy specifically developed for, and with the participation of, young people, and there was inconsistency in approach across targeted behaviours. This meant a perceived lack of priority towards *specific* needs of young people, and, in general, it is felt that young people need to be protected from *any* participation in potentially addictive behaviors rather than being seen as active agents, as is predominately the case with adults. Whilst this is understandable, as early participation in harmful behavior can have long lasting adverse effects, such approaches may not best prepare young people for adult environments in which they will be regularly exposed to such risks and opportunities.

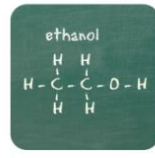
Our framework suggested three broad areas considered important for the evaluation of young people's policy: *quality of development & content*; *implementation*; and *outcomes*; and we suggested indicator descriptors for each. However, we found few examples of 'real world' policy evaluation in order to test these, compared with research on the actions that might contribute to policy aims (e.g. interventions research). Furthermore, our review of evidence of effectiveness suggested that a major future challenge for 'evidence-based' addictions policy making for young people is that the currently available evidence base for young people is incomplete. At best, recommendations can only be made about 'promising' approaches, which may not serve the needs of policy makers. A weak evidence based for young people's actions also means that it may be difficult to respond to challenges from some industry actors who oppose more restrictive approaches to currently legal behaviours.

READ MORE

Brotherhood A et al. (2014): *Adolescents as customers of addiction*. Addictions and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 16.1](#)

See the Policy Database: <http://alice-rap.prevention-standards.eu/> for further information and research results.

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Almost a third of premature deaths in Poland, Portugal and Catalonia are caused by alcohol, tobacco and illicit drug use; the proportion is even higher amongst men

**social cost
drugs**
mortality burden

Cross-country comparisons between Catalonia, Poland and Portugal in terms of deaths attributable to 3 addictive substances (alcohol, tobacco, illegal drugs) indicate that smoking contributes most significantly to mortality rates and years of life lost in the male population in these countries (in the broadest age group of 15-84, as well as the working age group). Among women, crucial cross-country differences were observed in the burden attributable to different substances: in Catalonia the greatest health burden is caused by smoking, in Poland - by smoking and drinking, and in Portugal - by drinking.

There are also significant cross-country differences in terms of the burden connected to the use of illegal drugs. Even though mortality attributable to illegal drugs is lower than alcohol and tobacco in all 3 countries, it is significantly higher in Catalonia than in Poland and Portugal: attributable mortality and years of life lost among Catalonian men are approximately two times higher than in the two other countries, and three times higher in the female Catalan population.

It should be mentioned however, that, as there are many people who drink and also smoke, or drink and use drugs etc. (poly-drug users), and these addictive substances contribute to the same diseases or conditions, the deaths of these people can be counted twice or even three times, meaning that the mortality rates attributed to the 3 different drugs use appears somewhat overestimated in the graph above.

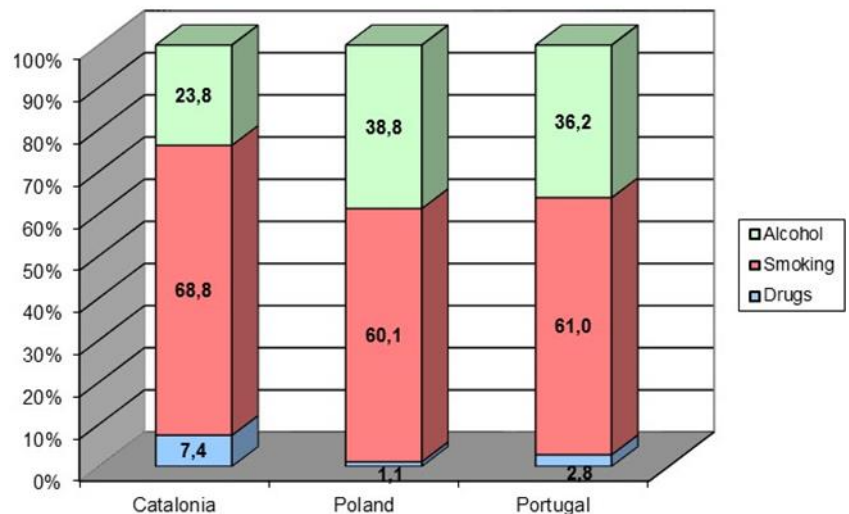
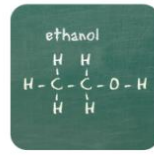


Figure: Percent of deaths attributable to alcohol, smoking or illegal drugs

READ MORE

Mielecka-Kubieñ, Z., Okulicz-Kozaryn, K., Zin-Sędek, M., Oleszczuk, M., Brzozka, K., Colom, J., Garcia-Altes, A., Ibanez, N., Segura, L., Feijao, F., Derevensky, J. & Remmers, P. (2014): *Social costs: a report specifying the costs of addiction to societies*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 6.1](#)

Anderson, P., Moller, L., Galea G. (eds.) (2012): [Alcohol in the European Union. Consumption, Harm and Policy Approaches](#). WHO



More than 11 million people aged 18-64 years are alcohol dependent in Europe (EU+ Iceland+ Norway+ Switzerland), whereas more than 22 million qualify for an alcohol use disorder (AUD; i.e. alcohol dependence or alcohol abuse/harmful use)

monitoring
alcohol-attributable harm
dependence
heavy drinking

Alcohol dependence and alcohol abuse/harmful use was estimated in general population surveys by a variety of different measurement instruments; either well accepted screening instruments like the CAGE or the Alcohol Use Disorders Identification Test (AUDIT), or based on DSM-IV diagnostic criteria, e.g. assessed with the Munich Composite International Diagnostic Interview (M-CIDI). In addition, alcohol use in grams per day was measured.

Heavy drinking (defined as 40+ grams/day for women and 60+ grams/day for men) - clearly related with a major share of alcohol-attributable burden - was more than twice as prevalent as alcohol dependence (5.2% alcohol dependence versus 13.9% heavy drinking). More than 240,000 people die each year because of their alcohol use in ALICE RAP countries (EU-27 plus Iceland, Norway, and Switzerland). A clear majority of overall alcohol-attributable burden was due to heavy drinking and alcohol dependence.

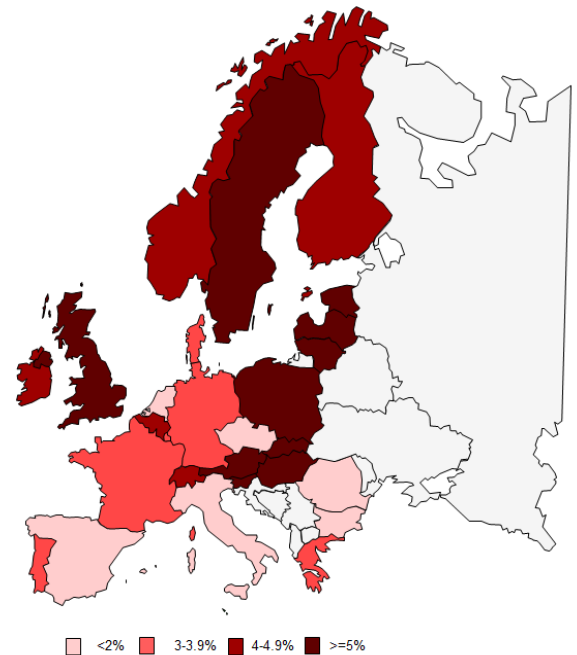


Figure: Alcohol dependence prevalence (12 month) in Europe, 18-64 years old

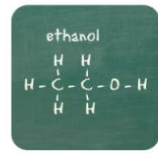
As data stem from general population surveys these estimates can be seen as conservative estimates; general population surveys commonly do not include marginalized, homeless, or institutionalized individuals which commonly have even higher prevalence rates of alcohol dependence, alcohol use disorders or heavy drinking.

Only very few countries regularly monitor heavy alcohol use and AUD in a standardized and comparable way. Given that alcohol-attributable burden of disease is one of the major contributors to overall burden of disease in Europe, standardized reporting is of importance for a continuous monitoring of alcohol-attributable mortality and morbidity due to AUD and heavy use.

READ MORE

Rehm J., Anderson P., Barry J., Dimitrov P., Elekes Z., Feijão F., Frick U., Gual A., Gmel G., Kraus L., Marmet S., Raninen J., Rehm M., Scafato E., Shield K., Trapencieris M., Gmel G. (2015): Prevalence and potential influencing factors of alcohol dependence in Europe. *European Addiction Research*, 21(1), 6-18. [DOI:10.1159/000365284](https://doi.org/10.1159/000365284).

Rehm J., Anderson P., Barry J., Dimitrov P., Elekes Z., Feijão F., Frick U., Gual A., Gmel G., Kraus L., Marmet S., Raninen J., Rehm M., Scafato E., Shield K., Trapencieris M., Gmel G. (2014). Alcohol use and dependence. In: Marmet, S., Gmel, G. & Rehm, J. (Eds.) (2014). *Prevalence of substance use, dependence and problematic gambling in Europe*. Addictions and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 5.1](#)



Toxicological analyses find that alcohol is the most dangerous out of 10 commonly used illegal and legal drugs.

Toxicology
 Ranking drugs
MOE
 alcohol

Ten drugs (heroin, cocaine, cannabis - THC, nicotine, alcohol, methadone, amphetamine, methamphetamine, MDMA and diazepam) were analysed for their margin of exposure (MOE), which measures the ratio between their toxic threshold and their intake, giving an indication of whether individuals are exposed to (or use) a drug at a lower level of risk or not.

An MOE of 100 means that the drug is being consumed at one hundredth of the toxic dose; an MOE of 1 means that the drug is being consumed at the toxic dose - thus, the higher the MOE, the lower the level of risk. MOE for drugs can be calculated taking into account a range of hazard outcomes in health and other well-being domains, as long as suitable dose-response data are available (which is not the case for most drugs). Therefore, analyses to date are primarily restricted to lethal outcomes based on animal studies, also a surrogate indicator of broader impact on functioning and well-being. Results for European adults are summarized in Figure 1. Alcohol is found to be the most dangerous drug, with a MOE of 1.0 when based on risk of death from liver cirrhosis. The low MOE for alcohol (and thus high risk) is due to the high exposure levels of alcohol use by European adults.

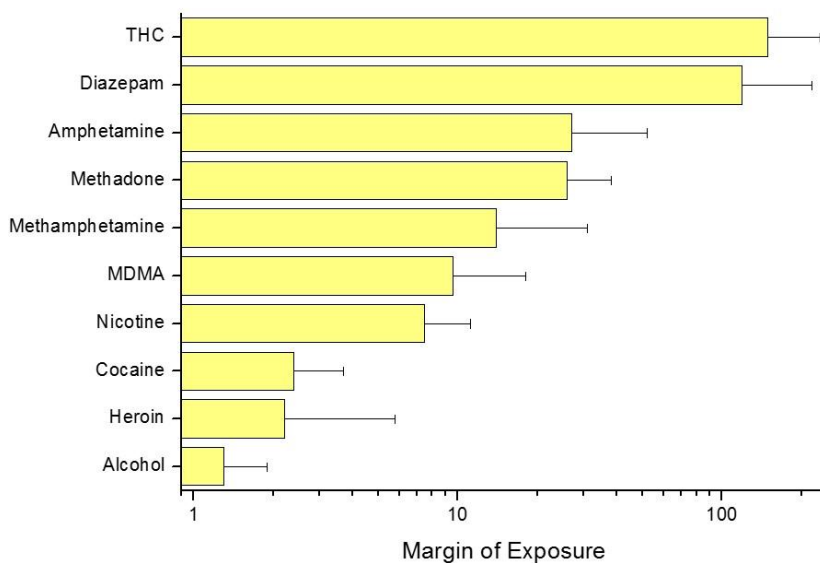


Figure 1 Margin of exposure for daily drug use estimated using probabilistic analysis. Source: Lachenmeier & Rehm (2015).

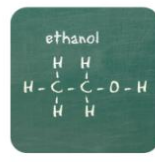
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Lachenmeier, D.W., & Rehm, J. (2015). [Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach. *Sci. Rep.* 5, 8126; DOI:10.1038/srepo8126](#)

Rehm, J., Lachenmeier, D. W. & Room, R. (2014) [Why does society accept a higher risk for alcohol than for other voluntary or involuntary risks? *BMC Med.* 12, 189.](#)

Lachenmeier, D.W., & Rehm, J. Classification of addictions: Addendum Analyses of margins of exposure. [Deliverable 4.1 - Addendum, Work Package 4.](#)

The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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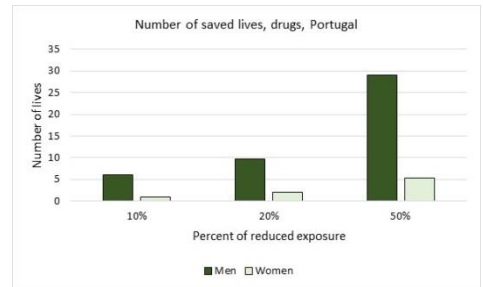
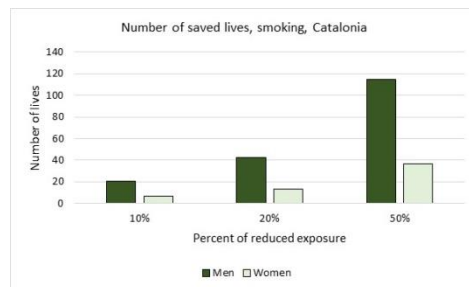
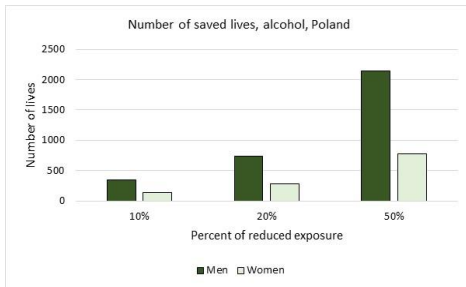
Reduced exposure to three addictive substances (alcohol, cigarettes, illegal drugs) could save a lot of lives in Catalonia, Poland and Portugal

mortality burden
avoidable cost
drugs
productivity loss

As the resources which can be assigned by country authorities for dealing with negative consequences of substance abuse are limited, it is very important to have the information about where these resources could be best allocated. In addition to the information on the social costs, valuable indicators can give an estimation of the avoidable part of the costs of substance abuse.

The avoidable costs are defined as the costs of using addictive substances (here: alcohol, cigarettes and illegal drugs) which can be reduced by the appropriate social policy of the country.

In the ALICE-RAP project, the estimation of avoidable costs was performed for three jurisdictions using two of the most applied approaches: *the Feasible Minimum* and *the Arcadian Normal*. We estimated which consequences would occur, given hypothetical reductions (by 10%, 20% or 50%) in the level of use of each of the three addictive substances, in the mortality, the number of years of lives lost, and the productivity loss in Catalonia, Poland and Portugal.



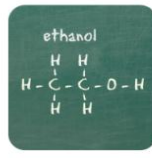
In all cases, significant gains could be obtained by reducing current levels of exposure. Exemplary results are presented in the figures; illustrating the theoretical gain in the number of lives of the population's members, were the current exposure of alcohol (Poland), smoking (Catalonia) or drugs (Portugal) to be reduced (by 10%, 20% or 50%).

READ MORE

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Poland's "zero tolerance" drug legislation in 2010 could have been responsible for high police and judiciary sector costs and for high number of recorded drug crimes at that time.

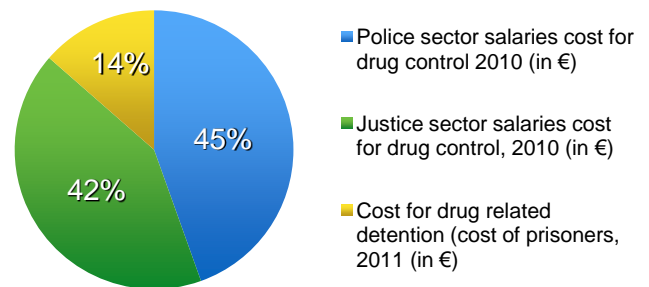
**Criminal justice
 Drug control
 Costs
 Zero tolerance**

A 2010 quantitative estimate of the criminal justice sector costs for drug control in Poland showed an expenditure of 44% for the police sector, 42% for the justice sector, and 14% for detention. Amendments in 2011 introduced more discretionary powers for prosecutors and judges regarding drug possession for personal use. Further research could show whether a different approach to personal drug possession had an effect on the overall allocation of criminal justice resources for drug control and on the practical policy implementation

- **Police Sector:** Police salaries for drug control amounted to 6.3% of the total budget for police salaries - with 1.57€ per capita cost and corresponding to 0.017% of the GDP.
- **Judiciary Sector:** Per capita costs of justice sector gross salaries dedicated to drug control was estimated to be around 1.47€, corresponding to 0.016% of GDP. With a population of 36 million, Poland has a very high density of judges and prosecutors, 3.2 every 10,000 inhabitants. This might partially justify the high costs attributed to this sector.
- **Prison Sector:** The expenditure for prisoners convicted for drug related crimes in Poland is just 0.005 of its GDP, much lower than the average EU expenditure.

These data appear to be consistent with the type of drug legislation enacted in Poland at the time, where a traditional zero tolerance approach was in place. It might be assumed that this approach was likely to be responsible for the high costs of the police and judiciary sector and for the high number of recorded drug crimes.

Qualitative research conducted before 2010 also confirmed the above estimate. A closer look at the actual policy implementation of Poland's "zero tolerance" legislative approach showed that it created in fact a huge burden on the police and judiciary sector and a very minimal repercussion on the prison system, where the most represented population, the active drug users, would be processed on a revolving door system and having little or no access to health and risk reduction opportunities.



Further research would be useful to understand whether the 2011 legislative Amendment, introducing a more relaxed approach to personal use, also brought changes in the allocation of resources for drug control within the criminal justice system and a more public health oriented policy implementation, as well as changes in the overall addiction governance, as outlined in the ALICERAP WP13.1.

READ MORE

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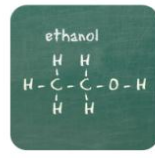
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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Portugal decriminalized personal use of all illicit drugs in 2001 and adopted a national strategy based on a strong public health focus. A 2010 quantitative estimate of the criminal justice sector costs for drug control in Portugal showed an expenditure of 73% for detention, 20% for the police sector and 7% for the justice sector. The high costs in the prison sector should be explored in greater depth, to understand whether or not they reflect the country's new legislative framework and governance of addiction, or are due to other factors, such as investment in treatment services for prisoners.

Criminal Justice decriminalization Costs Portugal

Based on a 2011 estimate, Portugal spent 73% of its criminal justice budget dedicated to drug control on the prison sector, 20% on the police sector and 7% on the justice sector.

- **Prison Sector:** In 2011, Portugal's expenditure on drug offenders, as a percentage of the total prison population expenditure, was around 20.79%, while the percentage GDP for drug-related detention corresponded to 0.026.
- **Police Sector:** In 2011, Portugal spent only 1.1% of its total police salary costs on drug enforcement cost, equivalent to 1.18€ per capita and 0.007% of its GDP.
- **Judiciary Sector:** In 2011, the costs for the justice sector gross salaries dedicated to drug control was estimated to be less than 50¢ per capita, corresponding to 0.003% of the country's GDP. With a population of approx. 10 million inhabitants, Portugal has a fairly high density of judges and prosecutors at 2.2 for every 10,000 inhabitants. However, judiciary drug-related costs are very low, as are the total number of reported drug crimes.

Portugal's low number of reported drug-related offences might be a consequence of the decriminalization of the personal use of all drugs, enacted by law in 2011. In Portugal, the highest costs are in the prison sector. Our estimate in ALICE RAP was based on the cost per prisoner and not on prison staff salaries. The high investment in the Portuguese prison system may be suggestive of the country's efforts to ensure the necessary resources for drug-related treatment and rehabilitation of drug users in prison, in line with the health-focused approach of the legislative framework, based on the diversion of drug users from prison to treatment and the provision of prison based treatment, risk reduction and recovery options. This should be verified with additional research, given that Portugal was hard hit by the 2008 economic crisis and given the evidence of serious overcrowding and inhumane conditions reported in prisons. It should be stressed that our estimates need to be taken with some degree of caution, as they cannot capture the relationship between the laws, their policy implementation, the consequences of these investments in the real world and in the impact on lives of citizens.

Further analysis may provide useful insights into the type of investments and allocation of resources that are made within the three criminal justice sectors, how efficient these investments are in supporting the respective national drug control strategies, as well as how effective they are in contributing to diminishing the negative social and health impact of illicit drugs and enhancing the overall governance of addiction, as outlined in the ALICE RAP WP13.1.

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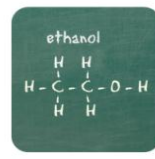
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European Prison Observatory: <http://www.prisonobservatory.org/>

The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Parental substance abuse has different manifestations throughout all the child's developmental stages: it is important to improve multi-professional cooperation

substance use
multi-profession cooperation
children
Intergenerational impact

In the ALICE RAP sub-study “Vanla - Parents and children” we found that parents’ substance abuse can lead to many kinds of risks in the child’s healthy development. These risks are related to health, psychological and social problems and educational achievements. Professionals in different services meet these children and young people, but do not necessarily see the connection between children’s problems and parental substance abuse. The study is based on register data in three birth cohorts of Finnish children and their biological parents.

The study showed that small children (under 7 years of age) with substance-abusing parents were more often hospitalized because of injuries and infectious diseases than other children. They had also been placed out of home more often. Parents’ abuse of both alcohol and drugs was a bigger risk for the child than solely alcohol or solely drug abuse.

Furthermore, risks of behavioral problems and learning difficulties as well as other psychiatric disorders were significantly higher among those 0-12 year old children whose parents were substance abusers, had psychiatric disorders, or both, than in the comparison group.

Parents’ substance abuse increased the 20 year old children’s risk of psychiatric disorders and heavy substance use as well as their risk of not achieving sufficient education for future professional development. Low levels of education may lead to poverty and social marginalization.

Social and health care professionals and teachers in day care centers and schools have a potentially important role in giving support to the parents and/or their children, as substance-abusing parents and the children have had several contacts with them. Prevention of harm to children of substance-abusing parents should perhaps focus more on the possibilities offered by these contacts in different health, social and educational services. It is likely that multi-professional cooperation in treating and supporting these children would lead to better results than treating the child for each symptom separately.

READ MORE

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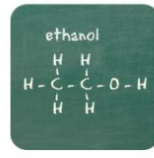
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Adult and child family members affected by their relatives' heavy alcohol use, drug use, or gambling have a greatly increased risk of ill-health, but they continue to be neglected in research, policy and practice

**family
harm to others
addiction**

In terms of research, policy and practice, 'affected family members' (AFMs), both adults and children, continue to be neglected. What research there has been, qualitative and quantitative, paints a fairly clear picture: AFMs experience multiple emotional, social and financial stressors, and disruption of family relationships sometimes involving emotional abuse, 'coercive control' and physical violence. They face difficult coping dilemmas, often struggling to refocus attention on their own rights and needs. AFMs are often left uninformed about what is happening and there are a number of barriers that stand in the way of them receiving the support they need. Research consistently shows AFMs to be at increased risk of ill-health, notably depression for adults and educational, emotional, behavioural, and friendship problems for children, made worse if there is exposure to additional family health or social problems.

This disturbing picture is essentially the same whether the problem is one of alcohol, other drugs or gambling; but there is comparatively little focus on AFMs exposed specifically to alcohol misuse, and the situation of professional/academic neglect is even worse for AFMs exposed to gambling problems.

The total number of AFMs who need help remains unknown but estimates suggest it is very large, constituting in itself a very significant and largely unrecognised public health problem. Professionals are often perceived by AFMs as lacking in knowledge and understanding. It is important that those in specialist and general services such as social work, mental health services, primary care, education and generic youth services, receive better training in understanding and working with children and adult AFMs. Scarcely any intervention methods for AFMs in their own right have been thoroughly researched and none has been adopted widely (let alone as a matter of routine) despite a number of promising methods being reported.

The most important factor is the availability and accessibility of help for child and adult AFMs.

What is needed now is:

- More of a research, policy and practice focus on the affected family members (AFMs) - both adults and children affected by alcohol, drug or gambling problems in the family. Adult AFMs have been particularly neglected; they are an at-risk group themselves and are also often in the best position to protect children in the family.
- Better information about the numbers of adults and children affected by family substance misuse or gambling problems, and about the numbers of services wholly or partly working with them.

- More pre- and post-qualification training about parental and family alcohol misuse and problem gambling for social workers and professionals in a range of other specialist and general services such as primary care, mental health, education and generic youth services.
- Increased availability and accessibility of helpful approaches for AFMs in their own right and wider adoption of, and research into, intervention methods, of which there are a number of promising examples.

READ MORE

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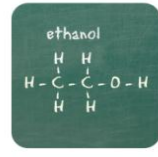
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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Throughout modern history, addictions, in particular alcoholism, have been used to stigmatise “inferior” classes or people(s), including indigenous populations, and to discredit their social and national aspirations; currently this stigma still continues to exist, covering addicts as well as addiction treatment, and leads to serious health inequalities across social classes, peoples and countries

addictions
health inequalities
stigma
social justice
discrimination

Since the concept of social justice has become legitimised in political thought and through revolutionary practice, it has not been rare to use the blame of addictions to justify the exclusion from the principles of social justice of those individuals, social classes, nations and ethnic minorities who allegedly “do not deserve it” due to their apparent or real excessive alcohol and/or drug consumption. The blame of addiction petrifies existing inequalities, including the unfair distribution of power, wealth and access to health.

Abstaining from some addictive substances or their controlled use became a symbol of moral superiority legitimising the existing social order, a superior position of the ruling classes, justifying harsh measures to control lower classes, and eventually discrediting claims of apparently inferior classes and ethnic and other minorities for more social justice, as well as social and/or national emancipation.

Attempts to remove moral stigma on addictions by their medicalisation proved to be successful only partially. People suffering from addictions experience discrimination in the labour market, as well as limited access to appropriate health services, which leads to serious health inequalities across social classes, peoples and countries. In particular, the consumers of drugs declared as illicit suffer not only discrimination in the health and social services, but their discrimination is reinforced by the criminal justice system.

READ MORE

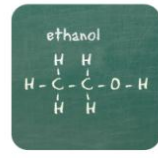
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It is clear that the increasing availability and varied forms of gambling and gaming will have socio-economic impacts, but the reliability of estimates of these is hampered by research gaps

**problem gambling
expansion
social costs
data availability**

The landscape of gambling throughout Europe has dramatically changed within the past decade; with an explosion in availability and access to gambling and gaming with the rise in internet venues and mobile access points, increase in development of land-based venues, and accompanying changes in regulation, treatment options for problem gambling and prevention.

As part of the broader work on costs of addictions, ALICE RAP scientists attempted to study the social costs (including costs to those other than the user) of gambling and gaming for three EU jurisdictions - Poland, Portugal and Catalonia - using a review methodology. Within this context, gambling was included with the aim of:

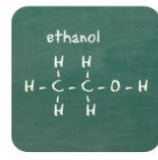
- determining the social costs attributable to pathological gambling in three EU countries (Poland, Portugal and Spain, more specifically Catalonia);
- examining the relationships between policies and costs, with particular emphasis on criminal behaviours and costs;
- estimating the avoidable costs associated with key policy directives and actions and;
- specifying the costs associated with addictive behaviours to society in general.

Recent trends with regard to use of techniques and problem gambling and responsible gaming were analysed, across different market segments (casinos, lotteries, remote gambling).

The resulting estimates of the costs and benefits associated with the expansion of gambling are widely disparate, due to the significant data gaps, methodological issues and inconsistency amongst existing data sources. There is considerably less available data concerning the impacts of gambling on the individual, his/her family and society than is available for alcohol, drugs and tobacco. There is little doubt that additional, systematic research within the EU is necessary in order to reliably assess the economic and social costs associated with gambling availability and expansion. The social cost studies carried out in ALICE RAP are merely a “snapshot” in time, but indicate the need for future research to be able to reliably measure true benefits and costs associated with gambling and gaming.

READ MORE

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Understanding human evolutionary behaviour and the common mismatch between the way we run our lives in present times and the way our lives were run in the environment in which we evolved can provide better pointers as to what needs to be done to reduce the ill-health and premature death resulting from the use of alcohol and drugs

**ill-health
heavy use
drugs
evolutionary
behaviour**

Ecological analyses find that humans have evolved to be active and functional, rather than passive and vulnerable with respect to the drugs that we take. Many drugs (other than alcohol) are neurotoxins developed by plants as defence mechanisms against being eaten by animals. Humans, as many other plant-eating animals, have counter-exploited plant neurotoxins for advantage. For example, both cannabis and nicotine are used by modern hunter-gatherer communities for their anti-parasitic properties, with, for example people living in high intestinal worm-burden areas, titrating cannabis and nicotine use with worm burden (the greater cannabis and nicotine use, the lower the worm burden). Moreover, treating the worm burden with anthelmintic drugs treats the heavy use of tobacco - the number of cigarettes smoked drops. As a separate mechanism, ethanol results from fermenting fruit, as a defence mechanism to avoid premature rotting. Ethanol vapour is used for olfactory location of ripe fruit, and thus giving nutritional advantage, also to humans who evolved as fruit-eating hominids.

An understanding of evolutionary behaviour has at least two implications for alcohol and drug policy: first, policies that prohibit the use of alcohol and drugs are unlikely to succeed because people are biologically programmed to seek these chemicals; and, second, in the presence of active and functional behaviour, high modern drug potency and ease of availability and affordability are likely to be core drivers of alcohol and drug-related harm.

READ MORE

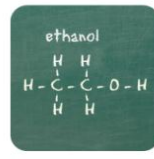
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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Determinants at the level of the social, economic and political environment are more important in the transition to risky substance use and gambling whilst determinants at the individual and sub-individual level of analysis are more dominant in the transition to harmful behaviours

determinants
harmful behaviour
transitions
risky behaviour

In order to facilitate understanding of the broad range of determinants of transitions in the development of harmful substance use and gambling, determinants were organised into three levels of analysis: the social, economic, and political environment, individual level, and cellular and molecular (including substance-related factors e.g. drug kinetics).

Our findings suggest that different levels of analysis are dominant at different stages in the development of harmful substance use and gambling. Specifically, in the transition from no use or low-risk use to risky substance use and gambling, many more determinants were identified in the social, economic, and political environment (e.g. social acceptance, availability and price) than at the other two levels of analysis. In contrast, in the transition to harmful substance use and gambling, determinants at the individual and cellular and molecular levels are more dominant (e.g. adverse life events, route of administration, and speed and degree of neuroadaptations).

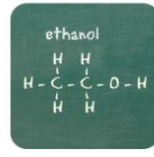
Thus, different approaches may be better suited to influencing behaviour at different stages in the trajectory of harmful substance use and gambling.

READ MORE

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Limited research evidence exists on the determinants of transitions from high-risk to low-risk substance use and gambling that occur without clinical or psychotherapeutic intervention; however, evidence supports that a key driver of transitions from harmful to low-risk substance use or gambling is life changes in the user, for example getting a job, getting married and having children.

determinants
reduction
life changes
harmful behaviours

Identifying the factors that influence transitions from harmful to low-risk substance use and gambling - that is, material reductions in harm of a social, mental or physical nature for the user, their friends and family, and wider society - is important for reducing the societal burden of harm from problem behaviours. Analysis was limited to transitions without formal treatment and intervention (often named as “self-change”, “spontaneous remission” or “natural recovery”), as such transitions are clearly understudied, even though this is the most frequent form of full or partial remission. Reductions in harmful substance use and gambling were defined as a reduction in or cessation of an individual’s use, but also changes in societal perceptions and attitudes and changes in the governance of substance use and gambling, both of which can lead to reduced harm.

In contrast to determinants of the transition to risky and harmful substance use and gambling, there is less evidence on factors that influence the transition to low-risk or abstinence behaviour. Evidence suggests that many people change their problem behaviour without formal interventions, but the underlying processes are not well understood, in part because examining changes in behaviour that occur outside of formal settings are difficult to capture.

Key factors that are evidenced to be associated with reductions in harmful behaviour can be grouped into following domains:

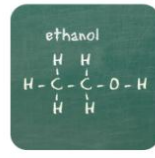
- Social, economic, and political environment level: social identity and social networks, economic and cultural changes, social movements, market regulation and formal social control, and criminalization and depenalisation
- Individual level: emotional and cognitive factors, life circumstances and patterns of use and drug knowledge.
- Cellular and molecular level: changes in neurocircuitry and neurotransmitters.

The influence of the social, economic, and political environment in the reduction of harmful substance use and harmful gambling is better understood than that of individual characteristics and cellular and molecular factors.

READ MORE

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Automatic biases towards alcohol drinking in adolescents are related to a genetic vulnerability; and online interventions which directly target such cognitive-motivational processes show promise as add-ons to treatment for clinical alcohol problems.

**alcohol
cannabis
implicit cognitions
online interventions**

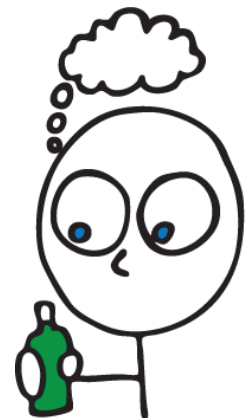
Cognitive-motivational processes related to substance use are influenced both by biological factors (e.g., genetics), and by cultural factors (e.g., differences between Southern and Northern drinking cultures); and relatively automatic (or “implicit”) and more consciously controlled (explicit) cognitive-motivational processes come into play, both of which can be targeted in prevention interventions.

By combining new data on implicit approach tendencies for alcohol in a sample of European adolescents with their biological (including genetic) data gathered through another EU project (IMAGEN, 2016), AR found that implicit bias was related to a genetic vulnerability factor. The same genetic factor has been previously related to the same bias in heavy adult drinkers, irrespective of drinking status and country.

In addition, AR used a multilingual online platform (www.mindsurfer.eu) to assess cognitive-motivational processes related to use of the most common legal substance (alcohol) and illegal or semi-legal substance (cannabis). ALICE RAP also examined cultural differences through a panel-study, including participants from countries with very different drinking cultures (England and Italy).

Although drinking and cognitive-motivational processes were largely found to differ in the expected directions (more frequent drinking in the South, more intoxication oriented drinking in the North), factors related to problematic drinking were rather stable across countries, with the expected risky motives (enhancement and coping) playing a role, as well as alcohol or cannabis identity, a construct less studied so far, which might open up new avenues for further research into interventions.

The online platform, which is available in 7 languages, has also been used to accommodate a number of (ongoing) online intervention studies, which directly target specific cognitive-motivational processes (cognitive bias modification), an approach which has shown promise as an add-on to treatment for clinical alcohol problems.



READ MORE

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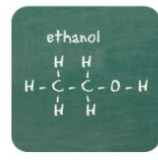
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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Most addiction concepts in various European countries changed between 1860 and 1980, but by the end of this period some degree of homogeneity around terminology can be observed

**evolution
addiction
concept
Europe**

Throughout history, and across Europe, an assortment of different concepts and terms were employed to describe the long-term use of illicit drugs, alcohol and tobacco. Words such as ‘inebriety’, ‘chronic alcohol poisoning’, ‘narcomania’, ‘dependence’ and ‘addiction’ were used by a variety of actors in a range of contexts to describe the problems caused by psychoactive substances. In this study, we examined addiction concepts in selected European countries (Austria, Italy, Poland and the UK and their historic boundaries and components) over the period from 1860 to 1980.

A variety of approaches to drugs, alcohol and tobacco can be found over time and place. In the period 1860-1930, alcohol was the prime concern throughout the studied countries, but by the middle of the twentieth century we start to see differences emerge. From the 1950s onwards, in Italy and Austria, drugs were of more legislative interest than alcohol, perhaps partly because of the significant domestic production and trade in wine. In Poland, alcohol was the main concern, with drugs and tobacco attracting much less attention. In the UK, all three substances prompted policy initiatives, and tobacco was of much greater concern there than in any of the other countries studied. The different substances also prompted different kinds of policies: there was considerable heterogeneity in approaches to addiction at the national and local level. At the same time, by the end of the period some degree of homogeneity appeared to have been achieved, largely through the World Health Organisation (WHO) expert committees on drugs, alcohol and tobacco.

The long view of addiction concepts in Austria, Italy, Poland and the UK therefore has much to add to current debates. By understanding the history of such concepts, and how and why they came into and out of use, we can better understand the changes in addiction terminology and substance use policy today.

READ MORE

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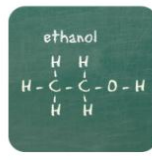
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Expert committees of the WHO played a significant role in the development, dissemination and standardization of concepts and terminology around addiction in relation to drugs, alcohol and tobacco from the 1940s to the early 21st Century

addiction
WHO
concepts
dependence

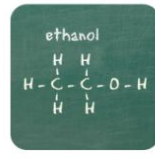
We examined the role of the World Health Organization (WHO) and its expert committees in disseminating concepts around addiction in relation to illicit drugs, alcohol and tobacco from 1949 to 2013. Expert committees had considerable engagement with concepts and terminology and the WHO was important in establishing and shifting the conceptual boundaries between these substances. Three time periods were surveyed: 1949-1963 when intense discussion of concepts and terminology in relation to drugs and alcohol occurred, most notably around the term ‘addiction’, and the substances were discussed as separate issues; 1964-1989 when the concept of ‘dependence’ emerged ushering in the potential for a combined approach to the substances and when discussion of tobacco arose for the first time; and the 1990s onwards, when a more sustained, combined approach to the substances developed and the WHO exercised its constitutional powers to establish the Framework Convention on Tobacco Control. We found increasing linkages between the three substances, in particular, a more combined approach to research and treatment, but differences in control. Early involvement with the problems of substance use and earlier discussion of tobacco than has generally been indicated in the existing literature was uncovered. Factors that influenced discussions included: changing scientific knowledge, varying approaches from an increasing number of scientific disciplines, changes in drug use, political-economic concerns and cultural differences. Harmonisation of concepts of addiction at the international level is by no means straightforward and it remains an ongoing process.



READ MORE

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The role of the EMCDDA in defining concepts of addiction in relation to drugs, alcohol and tobacco since its establishment in 1995

addiction
concepts
EMCDDA
poly-drug use

We explored the role of a European agency, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in defining concepts and terminology around ‘addiction’, in relation to drugs, alcohol and tobacco. The period from the establishment of the EMCDDA in 1995 to 2014 was examined. Drawing on the examination of annual reports, reports on activities, and their glossary, we found an expanding and evolving institution facing an increasingly complex situation. We noted the sheer variety of terms employed and the evolution of new terminology to cope with an increasingly complex substance use culture. Recognition of poly-drug use and the difficulty of maintaining the distinction between licit and illicit substances led to the emergence of new terms including ‘addictive behaviours’ designed to apply across the different substances. Finally, variations in focus and terminology with other international agencies, including the WHO, are revealed reflecting the continuing uncertainty over terminology around addiction.



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European Drug Report 2015

high-potency cannabis products are more available

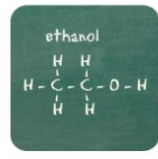
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International alcohol conferences from 1885 onwards began a process of internationalisation in understanding the concept of addiction, but this influence declined as national differences and tensions between European countries became sharper in the 1930s

**internationalisation
addiction
concepts
temperance**

The aim of this sub-project was to analyse the alcohol question and its responses through a series of international anti-alcohol conferences from 1885 onwards. How did they view the alcohol problem and its causes; what were the consequences for the individual and the society as a whole; and which solutions merited discussion?

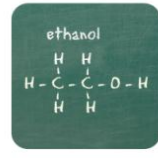
The conferences before the First World War can be seen as an arrangement for the modern state where the temperance movement placed itself in the service of the state and at the same time demanded that it be given some responsibility for the future development of society. These were years when the nation acted as a point of reference in several questions that were chafing within the modern project: population qualities and the condition of future generations, the notion of citizenship, industrial strength and competitiveness, the role and the strength of the state.

The first inter-war conferences enjoyed an optimistic and internationalist atmosphere, added to by American prohibition, which had given the temperance movement plenty to be hopeful about. But when the 1920s turned to the 1930s, the conferences were transformed into arenas for national solutions and into outright propaganda pieces. The responses to the alcohol problem debated in the inter-war conferences built on a combination of scientifically masked ideological conviction and ideologically inspired passion for science.

Several themes from the early part of the twentieth century also dominated the post-war conferences: much of the presented research could easily fall into categories such as control, treatment and prevention; women and youth (who still hold positions as extraordinary but frequently discussed problem groups); and traffic and working life. All these themes are recurrent arenas for the formulation of alcohol and drug problems. But sociological and psychological perspectives are more common now, epidemiological research has grown steadily, the drug problem is ever present and a comprehensive addiction concept has opened up for topics beyond substance misuse.

READ MORE

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The addictions field is characterised by tensions between groups, by entrenched relationships between some addiction-specific stakeholder groups and powerful political stakeholders, and by the dominance of some forms of evidence over other forms of knowledge. Science and scientists are mainly influential in policy terms only if their scientific findings ‘fit’ with the wider political and economic context

decision-making
stakeholders
influence
addiction policy

This ALICE RAP [WP](#) used a case study approach to examine the role of different stakeholder groups in addictions policy (drugs, alcohol, gambling) in Austria, Denmark, Italy, Poland and the UK - a sample of countries representing different political histories and varying drug policies. The case studies were informed by a range of theories, but mostly drew on Kingdon’s ‘multiple streams’ theory. The following were some of the main conclusions:

- Political, social and economic changes and crises provide ‘windows of opportunity’ in which new/ some stakeholders can increase their policy salience, re-frame understanding of the issue and negotiate a space for their policy ideas.
- It is difficult for new stakeholder groups/ alliances to compete with groups which have entrenched relationships with powerful political stakeholders unless radical political change revises power relationships.
- The inclusion/ exclusion of bodies of evidence in policy decisions is determined by which types of evidence (and which experts) are given legitimacy/ credibility. What is accepted as policy relevant evidence tends to become an integral part of established systems, supported by powerful stakeholders; the evidence itself becomes the basis for attracting resources and extending the evidence base, thus making it less likely that challenges to existing evidence and policies will be successful.
- Representation/ participation of stakeholder groups in the policy arena does not necessarily lead to the democratisation of addiction discourse and policies.
- Representation is a matter of both stakeholders’ abilities and the possibilities available to engage in collective action; this will vary with the political and administrative structures of different societies.
- International organisations (e.g. UNODC, WHO, EMCDDA) are recognised as influential stakeholders. But national governments can (do) use international edicts to support their policies when convenient and also find ways of resisting or re-interpreting international regulations to suit national needs and preferences.

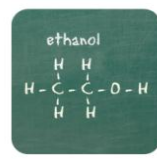
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The role and prominence of user groups as stakeholders in European drug policy processes varies greatly, but are generally difficult to fit into existing analytical research frameworks.

stakeholders
drug policy processes
drug users
analysing voices

There is variation between countries in the role and influence of drug user groups as stakeholders in drug policy developments. This piece of work studied, more precisely, how drug user groups act and get the opportunity to participate in policy processes. The analysis is based on data generated by interviews with stakeholders and document studies from four country cases, Austria, Denmark, Italy and the UK.

When analyzing these materials it becomes clear that drug users and drug user groups played rather different roles in the different countries. In some countries, such as Denmark and UK, user groups were very active and visible in policy processes, while in others, such as Austria, they were almost absent, or, if present, hardly visible. The study also highlights the difficulty in locating drug user groups' voices within the existing literature and placing such groups in the analytical frameworks employed in this type of research - this is because they are not very sensitive to unconventional stakeholders such as drug users. To explore these issues, the study has taken as its point of departure Backstrand's three concepts of representation, participation and democratization; paying attention to the fact that user groups and user voices are, for various reasons, often not very well organized or prominent in public debates, but can nevertheless - at times - play important roles in policy processes. Overall, the analysis found that the countries studied are only beginning to grapple with the issues of representation, participation and democratization. Even within those countries where these processes have been developed the most, there are limited 'windows' for these processes to emerge and develop.

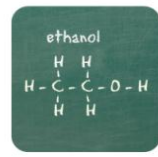
It is also worth noting that representation and participation do not necessarily lead to democratization or democratic governance. These attempts at greater public participation may be just 'cosmetic adjustments' which do not challenge the traditional policy-making structures and procedures.

READ MORE

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The way in which General practitioners' view problem gambling is shaped by both the country-specific approaches to problems in general and the predominant welfare culture

Problem gambling
Health professionals
views
welfare culture
professional approaches

General practitioners have been identified as important actors in brief interventions targeted at problem gambling. The analysis of focus-group interviews with Finnish, French, Italian and Polish general practitioners showed that their view on the problem is strongly influenced by their country-specific institutional context of welfare provision as well as the approach towards addictions.

The Finnish GPs tend to replicate Nordic welfare state's inclusive all-embracing system logic and they embrace some typical individual traits in the same culture. The French GPs, on the other side consider problem gambling as beyond the individual's control and instead refer towards bodily reactions. This echoes the French medical approach towards addictions in general. The Italian context of the Southern European welfare state regime is articulated in the GPs' discourse about familial relations. Also the influence of the Church in shaping the concept of addiction is made evident. The profound changes in Polish society initiated deep changes in the perception of social problems, including their individualization: The Polish physicians referred to individual and familial contexts of help provision.

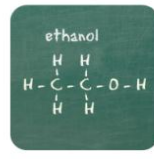
These results point out some challenges for any attempt to standardise the medical profession and hints towards differing demands when integrating GPs into early interventions concerning problem gambling in the four countries.

READ MORE

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The media plays a crucial role in constructing popular narratives on addiction, which are also molded by country particularities such as the welfare regime, the most prominent addiction problem in the society, or the level of secularity

addiction media
cultural constructions

We have been able to discern governing ideas in popular narratives on addiction from different countries and traced them to their welfare state cultural origin.

Mappings of how different countries deal with addiction problems are often achieved through descriptions of treatment systems or policy interventions. Although these can be of great value, they often lack a conceptual context of origin, and information of societal reasons and implications. Often, the action repertoire is portrayed in relation to aims of global epistemic governance, which in turn is construed as value-free evidence.

In the media study of work package 3 we have shown that the governing story on the nature of and on the solution to addiction problems correlates with the kind of problem most prevalent and salient in the studied country. This problem served as a baseline idea of addiction that permeated constructs of other addiction-related problems. In Finland and Poland alcohol has played a crucial role (in Poland also tobacco); whereas in the Netherlands and in Italy, illicit drugs have been more salient in the public discussion.

Level of secularity, welfare state regime and system for handling the problems also played a role in the governing cultural constructions. Patterns in perceptions on how to address the problems can especially be discerned from the solution repertoires offered in the press stories. In the USA small scale voluntary peers, community, family and church played a great role, whereas in Finland the welfare state institutions that deal with the problems were referred to in abstract terms as a “machinery” that will address the problems after they have been put on the public agenda.

The study suggests that the media plays a crucial establishing and reinforcing role in the cultural articulation of the problems. However, the media will take different roles depending on their country-specific normative roles in relation to state and other actors. A general de-politization of addiction-related question was observed in all participating countries.

READ MORE

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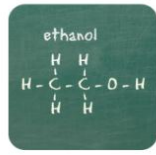
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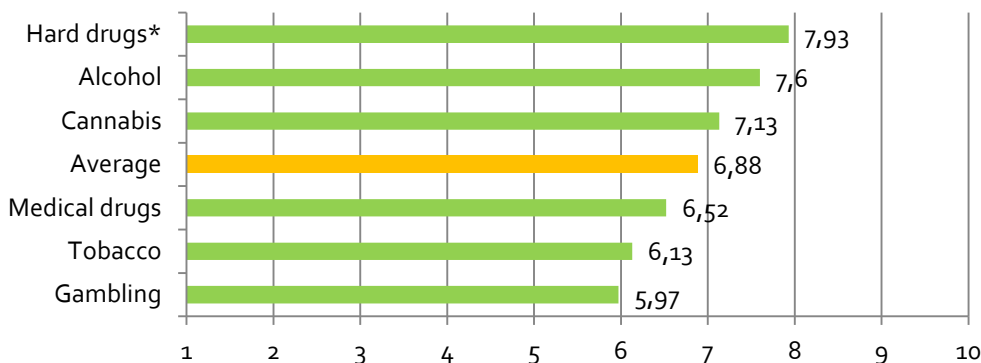


Cocaine, amphetamines and heroin are perceived by European citizens as the ‘addictions’ with the most severe consequences to society, whereas tobacco, despite being responsible for the largest share of premature deaths caused by addictive substances, is perceived as having one of the least severe impacts on society

**addictions
severity
popular perceptions
addictiveness**

Popular images of different addictive substances and behaviours were investigated in five European countries (Poland, Norway, Germany, Finland, and Sweden), via surveys directed at largely representative population samples (total N= 4.843). There are, in all five countries, large differences in the perception of the severity to society of different addictions. Addiction to ‘hard’ narcotic drugs (heroin, amphetamines, and cocaine) is, with a few exceptions, seen as the far most dangerous problem to society, whereas behavioural addictions, such as addictions to gambling and internet use, generally are perceived as much less severe. Largely the same differences, although less pronounced, appear as concerns the perceived risk to get addicted to various substances and/or activities. Most respondents seem to adopt a rather “moral” view on addiction problems, holding the individual, rather than other circumstances responsible, both for acquiring and solving an addiction problem. The main exceptions here seem to be addictions to medical drugs, ‘hard’ narcotic drugs, and alcohol, where the individual is more often seen as a victim.

Perceived social severity of various addictions, from not at all serious (1) to extremely serious (10), based on surveys in 5 EU countries: Poland, Norway, Germany, Finland and Sweden



Comparing European citizens’ perceived personal and social dangers of various addictions with the objective health burdens of the same addictive substances (as documented in other ALICE RAP work; see, for instance [Mortality burden](#), or [Prevalence of alcohol disorders](#)), may have important policy implications.

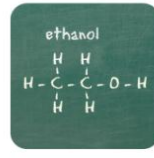
* amphetamines. cocaine & heroin

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In recent decades, European countries have witnessed a process of withdrawing addictions from their political context in the media and public discourse. Social determinants of addictions were replaced by specific individual causes. Decreased authority of political and institutional actors made a room for individual experiences and experts representing mostly biomedical sciences

addiction
 public portrayal
media
 individualization
 knowledge sources

The collected material from Italian, Finnish and Polish printed media demonstrates increasing amounts of sources of knowledge on the addiction problem in the course of the 1990s, with a clearly lower coverage in 2011. In all three countries, media increasingly presented the individual addict's perspective, therefore strengthening the image of addiction as a risk to anybody, no matter structural content.

Addiction problems have become less articulated in the political agenda. Decreasing representation of civic and political sources reflects a general weakening of a social framing of addiction problems, as well as an overall depoliticizing trend of the addiction questions. The process of individualization of addiction at the expense of public spheres occurred most clearly in Finland, but individualization trends have been also found in Italy and Poland, accompanied by the medicalization of the problem.

The dominant sources in addiction discourse varied between countries. In Finland actors representing the private sphere -individuals and addicts- dominated. This was different in Italy and Poland, where research and medical sources, on the one hand, with media (Italy) and public/state sources (Poland), on the other, were found to be among the most frequently used.

Alcohol and illegal drugs were most often the subject of the media focus. Finnish and Polish newspapers mainly referred to alcoholism, whereas the Italian newspapers dealt mostly with drug-related addiction. The small number of articles on tobacco and the decreasing number of articles on alcohol in Finland and Italy was somehow substituted by the increase of articles on behavioural addictions such as gambling or eating disorders, mostly referred to by medical and research sources.

Changing sources of authority in addiction-related issues reflect social and political outcomes of economic transformations, mixed with the cultural context of traditional alcohol and drug addictions. For instance, in Finland, the domination of individual sources in alcohol and drug discourse illustrated a more general trend of replacing collective control and responsibility of the state by the notion of individual responsibility, whereas in Poland and Italy the preoccupation of the political sphere with morally sensitive drug issues reflected attempts of new political and economic elites to legitimize their new powers.

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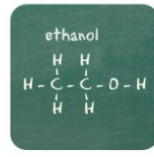
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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Corporate actors use a wider variety of channels to engage with policy makers. Not all of these are openly acknowledged. Policy makers' are not always aware of these channels with potentially serious consequences for evidence based policy making

channels
 political action
addictions
 corporate actors

[WP12](#) involved mapping the activities of corporate and economic actors in order to ascertain the shape and nature of the engagement of 'addiction related industries' (Alcohol, Tobacco, Gambling and Food) with policy makers. Comparing the architecture of corporate political action in the EU of these 'addiction related industries' is a relatively unexplored area of policy action in relation to the governance of addictions. The ways in which these products and services are sold and promoted are regulated differently across Europe and member states. Similarities can be observed, however, in the ways in which the commercial sectors that manufacture and promote these products operate.

It is clear that in addition to direct action from corporations, a myriad of intermediaries also engage in policy related activities. By following the 'routes' that corporations take to pursue their interests, as opposed to examining a predetermined universe of 'lobby groups', we were able to develop a more comprehensive analysis of corporate political action. The many and various 'routes' to policy influence are significantly greater than has been suggested in previous research. However, while the 'routes' increase, the actors involved may not. This can result in the appearance of a range of voices engaging with policy makers, when in fact a much more limited range of corporate actors is behind the apparent range on offer.

Our research demonstrated that a wide range of organisations including trade associations, think tanks, law firms, lobbying and PR consultancies, research institutes and civil society groups appear to have direct or indirect relations with corporate actors. This can result in two issues: first corporate linked voices can be over-represented in policy discussions; and second that this skewing of the information environment is not necessarily easily visible to policy makers. As a result, public health interests can be overwhelmed or drowned out in policy discussion and evidence based approaches can be undermined.

Those who seek to exert influence often attempt to keep this hidden. Therefore, one policy measure could be to facilitate wider knowledge by improving transparency-registers and conflict of interest measures where they exist and establish them where they do not.

Another is to more effectively manage policy access - attempting to ensure a level playing field for contending interests.

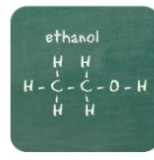
READ MORE

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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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In-lab exposure to alcohol advertisement causes physiological cue-reactivity and craving in alcohol dependent patients. However, the level of exposure to alcohol adverts in patients' daily lives can not be demonstrated to affect the course of alcohol dependence

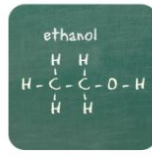
craving
advertisement
alcohol
dependence

The present study investigated the nature of physiological cue-reactivity and craving in response to alcohol advertisement among alcohol dependent patients (N=80) who were enrolled in detoxification treatment. We assessed the predictive value with regard to future drinking of both the magnitude of the physiological and craving response to alcohol advertisement while in treatment and the degree of alcohol cue exposure in patients' natural environment. Physiological reactivity and craving in response to experimental exposure to alcohol and soft-drink advertisements were measured during detoxification treatment using heart rate variability and subjective rating of craving. Following discharge, patients monitored exposure to alcohol advertisement for five consecutive weeks with a diary and were followed up with an assessment of relapse at 5 weeks and 3 months post discharge. The results indicated that the presence of alcohol cues such as the portrayal of an alcoholic beverage and drinking behaviour induced physiological cue reactivity and craving when exposed to alcohol advertisement. The magnitude of cue-reactivity and the craving response to alcohol cues at baseline and degree of exposure to alcohol advertisement in patients' natural environment did not predict relapse. It is concluded that the presence of alcohol cues such as portrayal of alcoholic beverages and drinking behaviour induces cue-reactivity and craving in alcohol dependence through a conditioned appetitive response.

A recommendation from this work is that removing alcohol cues from alcohol advertisement could reduce (adverse) physiological cue-reactivity and craving in alcohol dependent patients. Reducing the volume of alcohol advertisement all together would be expected to have a similar effect.

READ MORE

Witteman, J., Post, H., Tervainen, M., De Bruijn, A., de Sousa Fernandes Perna, E.B., Ramaekers, J. G., & Wiers, R. (2014): *Cue-reactivity and its relation to craving and relapse in alcohol dependence: A combined laboratory and field study*. *Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP)*: [Deliverable 11.3](#) (part II, study 2)



Online bingo websites use a range of strategies to draw in new users, foster emotional attachment and encourage heavier involvement in gambling

**online bingo
marketing
gambling
belonging
excessive use**

We analysed the features, content, messages and imagery of online bingo websites popular in the UK. Websites had a number of features which helped to draw in the first time user: easy to access, with minimal age-verification procedures, and it was possible to play and win for ‘free’ even before entering credit card details. Textual and design elements evoked the thrill of playing and winning, while at the same time presenting a reassuring image of bingo as normal, widespread and everyday. Images, graphic design and references were strongly female-oriented and also unsophisticated, suggesting a child-like, playful and benign activity.

Belonging was a major theme in the sites. Language was inviting and inclusive, with constant references to joining in, social interaction, community and friendship. ‘Chat’ and ‘Community’ pages offered the facility to chat with ‘chat hosts’ or ‘room hosts’ and other players during and between games. Mascots and other features were used to convey brand ‘personality’ and to build a relationship between brand and users. Features such as rewarding existing players to ‘recruit’ friends helped to draw in new customers, to cement users’ relationship with the site, and to knit bingo further into users’ everyday life.

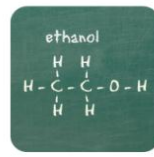


Websites used a number of strategies to encourage users to step up their involvement. These included: offering a wide variety of games to prevent boredom, encouraging users to embed bingo into their daily routines, emphasising the ability to play frequently and continuously, evoking the ‘fear of missing out’, providing the ability to ‘play on the go’, encouraging other forms of gambling between games, and linking rewards to engagement, in particular by incentivising frequent play or high spend.

Our analysis suggests that bingo in its online form has the potential to lead to excessive use. Ongoing critical scrutiny is needed of the nature of online bingo marketing and its effects on users.

READ MORE

Stead, M., Angus, K., Purves, R., Dobbie, F., Reith G.: *The Online Bingo Boom in the UK: A Qualitative Examination of its Appeal*. Article in preparation for submission to PLOS ONE.



Addicts account for a substantial share of both tobacco and alcohol consumption across Europe

tobacco
addicts
alcohol
share of consumption

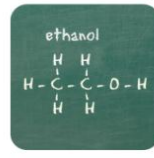
A report produced as part of the ALICE RAP project offers a synthetic estimate of the proportion of alcohol/tobacco consumption that is accounted for by those dependent on alcohol/tobacco across Europe. It combines (i) survey data on consumption in each country, with (ii) risk functions on the relationship of consumption with addiction, and (iii) new methods to deal with the under-reporting of alcohol consumption. We should stress that there are a number of methodological caveats with these synthetic estimates, particularly around the link between consumption and dependence, and that the ranges given below do not capture the full range of uncertainty around the estimates.

Nevertheless, the estimates are likely to be reasonably accurate, and allow us to conclude that:

- **Addicts account for a substantial share of both tobacco and alcohol consumption across Europe.**
- **Addicts seem to account for a greater share of total consumption for tobacco vs. alcohol.** While this is perhaps to be expected given that tobacco use has sometimes been equated to tobacco dependence in ways that are not true for alcohol, it is perhaps surprising that the share of tobacco addicts is lower than we might expect (38-64% of cigarette consumption depending on the definition of dependence), and the share of alcohol addicts is perhaps higher than we might expect (15-20% of total consumption).
- **We estimate that tobacco addicts spend €49-88bn on cigarettes across the EU, while alcohol addicts spend €44-63bn on alcoholic drinks.** This combines industry data on the size of these markets in Europe with the preceding estimates; again, we should stress that while the estimates are likely to be reasonably accurate, they are subject to some uncertainty.

READ MORE

Baumberg, B. (2014): *Addicts' share of alcohol and tobacco expenditures*. In Disley, E. et al (2014) *Addiction revenues*. Addictions and lifestyles in contemporary Europe - Reframing addictions project (ALICE RAP). [Deliverable 10.1](#)



Imprisoned drug dealers reported that they aimed to sell mainly to regular customers and employed tactics to secure a stable customer base, including offering discounts, providing credit and even occasionally, offering ‘freebies’ or ‘extras’ to regular customers

**suppliers
drug dealing
tactics**
customer service

This area of work in ALICE RAP draws on interviews with 135 male drug dealers in prison in Italy, Slovenia and Germany. The aim of this ALICE RAP research was to improve understanding of how dealers in cocaine and heroin entered the market, organised their dealing operations and managed suppliers, customers, risks, profits and costs. Interviewees were in prison at the time of the interview, having been convicted of at least one drug offence related to distribution or sale of heroin or cocaine.

Most dealers in our three samples reported having regular suppliers. Analysis of the interviews indicates that supply arrangements varied according to whether the interviewee was an independent dealer or worked as part of an organisation, as well as whether they were high or low quantity sellers. Dealers’ relationships with their customers were described as revolving around trust and reputation. Tactics dealers’ described using to maintain their customer base included being reliable and providing a quality product. A few quotations illustrate these points.

“They [customers] would always come back because the product was good.” (I60)

“Customers are people you know, if there are any problems they will come back”. I35

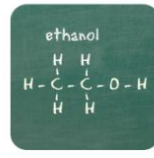
“New drug is not always the same. My supplier always told me if the drug was not ok. And I have always told my customers about it and I let them to try it before they bought it.”S29

READ MORE

Tzvetkova, M., Pardal, M., Rena, A., Liquori, A., Libianchi, S., Disley, E., Talic, S., Forberger, S., Khan, M. A. A., Perschall, A. (2014): *Drug dealers’ careers, behaviours and strategies - in their own words. A study of imprisoned drug dealers in Italy, Slovenia and Germany.* Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 10.2](#)

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Tzvetkova, M., Pardal, M., Rena, A., Disley, E., Liquori, A., & Libianchi, S. (2014): *Dealing in cocaine and heroin in Italy: business strategies and operations.* In: Anderson, P., Bühringer, G. & Colom, J. eds. [Reframing addiction: policies, processes and pressures.](#) The ALICE RAP project. ISBN: 978-84-697-1647-2



Frequency of supply, price levels, quality and quantity of supplies, typical places and dealing techniques are different at various levels of the illicit drug supply chain and areas of Italy, outlining two main categories of dealers, each with typical characteristics: those who work as part of a criminal organization and those who work independently

business strategies
drug dealing
motivations
organized crime

A total of 72 interviews were conducted in five Italian prisons with the aim to understand how cocaine and heroin dealers enter the illicit market, organise their dealing activities and manage supplies, customers, risks, profits and costs. With regard to business profits, costs and revenues, the interviewed dealers were able to provide limited information. However, many relevant insights were gained about business strategies, their perception of success and career expectations in this field and the way they face and manage challenges and risks associated with drug dealing activities.

Economic motivations, the need to support their own drug use habits and the inducement of family and friends were reported as the main reasons for their engagement into the illicit drug market. Differences and commonalities in roles, tasks, buying and selling strategies, as well as perceptions about risks and reputation emerged among dealers operating in different areas of Italy and at different levels of the illicit drug supply chain. Relevant differences also emerged between independent dealers and those who worked as part of criminal organizations. Such differences were related to the possibility to choose the suppliers, to set the prices and to decide the dealing place as well as the quantity of drugs to be sold. Relevant information was also gained on mechanisms affecting the drugs prices, such as the quantity bought by the dealer, the degree of access to and the availability of a certain drug in a certain time of the year/month/week which may vary over time and locations.

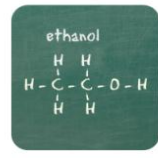
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Tzvetkova, M., Pardal, M., Rena, A., Liquori, A., Libianchi, S., Disley, E., Talic, S., Forberger, S., Khan, M. A. A., Perschall, A. (2014): *Drug dealers' careers, behaviours and strategies - in their own words. A study of imprisoned drug dealers in Italy, Slovenia and Germany.* Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 10.2](#)

Pardal, M., Tzvetkova, M., Rena, A., Liquori, A., Libianchi, S., Disley, E., Talic, S., Forberger, S., Shah, H., Washburn, M., Zhang, X., Zimmer, A. M. (2014): *Prices, profits, and business practices of drug dealers in Italy, Slovenia and Germany.* Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 10.1](#)

Tzvetkova, M., Pardal, M., Rena, A., Disley, E., Liquori, A., & Libianchi, S.: *Dealing in cocaine and heroin in Italy: business strategies and operations.* In: Anderson, P., Bühringer, G. & Colom, J. eds. (2014) [Reframing addiction: policies, processes and pressures](#). The ALICE RAP project. ISBN: 978-84-697-1647-2

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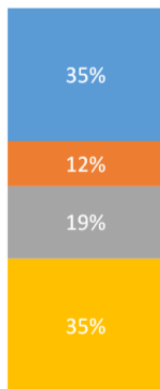


The money Italian users spend on cocaine gets split very roughly into thirds: about one-third remains in the hands of the retailers who sell directly to users, one third going to the higher-level dealers within Italy, and one-third flowing out of the country and to international traffickers

**retailers
drug dealing
profit
Int'l traffic**

This finding draws on interviews with male drug dealers in prison in Italy. Respondents were asked to describe their cocaine dealing activities. One way in which the data from the interviews were analysed was to look at drug-dealing ‘cycles’ - the collection of activities that begins with purchase from a higher-level dealer and ends when the drugs have been disposed of (mostly by sale at lower market levels). Respondents’ descriptions of dealing cycles are consistent with fairly orderly dealing networks, with reasonably well-defined market levels. In Italy, a typical scenario among the interviewed dealers (which might not be typical of other dealers) was that a multi-kilo trafficker might purchase 5 to 10 kilograms (kg) for roughly €30,000 per kg and sell 0.5 to 1 kg packets to 10 wholesalers for €40,000 per kg. Each wholesaler then sells to 10 to 20 retailers in 50 gram packets. These retailers might pay €2,750 for their 50 gram purchase (or €55 per gram) and sell one gram at a time to users for €75 per gram.

Figure:
Rough
estimate of
distribution
of revenues
across
market
levels for
Italian
Cocaine



■ Retailer ■ Wholesaler ■ Multi-kilo Trafficker ■ International Supply Chain

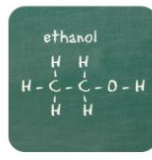
In our analysis we refined this picture, taking into account reported prices in the interview, to understand the distribution of revenues retained by market level. Under the scenario described above (as shown in the figure) there is a fairly even split between the revenue retained by retailers (around 35%); wholesalers and multi-kilo traffickers (31%) and the international traffickers (35%). Even though the lowest-level dealers collectively retain a similar share of the earnings as other market levels, retail sellers are so numerous that individually their earnings are far smaller than those earned at higher market levels.

READ MORE

Pardal, M., Tzvetkova, M., Rena, A., Liquori, A., Libianchi, S., Disley, E., Talic, S., Forberger, S., Shah, H., Washburn, M., Zhang, X., Zimmer, A. M. (2014): *Prices, profits, and business practices of drug dealers in Italy, Slovenia and Germany*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 10.1](#)

Caulkins, Jonathan P., Disley, E., Tzvetkova, M., Pardal, M., Shah, H., Zhang, X.: *The Structure and Operation of the Supply Chains for Cocaine and Heroin in Italy and Slovenia*. Paper presented at the 9th Annual Conference of the International Society for the Study of Drug Policy, Ghent, 20-22 May 2015

The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Most Corporate Social Responsibility (CSR) activities of the addiction industry are not evaluated; those evaluations that do exist are not methodologically sound; and the very small numbers of relatively better-designed evaluations show negative impacts

**impact
evaluation
CSR**
addiction industry

This area of work in ALICE RAP draws on new documentary and interview-based evidence, including 83 direct interviews with Corporate Social Responsibility (CSR) professionals in different addictive product sectors (alcohol, tobacco, gambling and high fat, salt and sugar (HFSS) foods); 31 documentary reports from published corporate CSR documents; and searches of the academic and grey literature, including a systematic analysis of all final CSR reports from the [EU Alcohol & Health Forum](#).

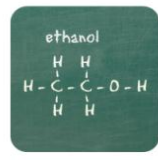
We found a variety of CSR activities that predominantly fit into a discourse of ‘encouraging the responsible consumer’. However:

- **Many CSR activities are not evaluated** - we obtained relatively few evaluations from our interviews. Within the EU Alcohol & Health Forum, 21 of 41 final commitment reports contained no outcome or impact measures.
- **Those evaluations that do exist are not convincing in terms of key outcomes** - some evaluations show that the activity had not been carried out properly; while others show that the activity was successfully carried out, but provide no robust data on impacts.
- **The very small number of relatively convincing evaluations show negative impacts** - we found very few studies with valid methodology or appropriate outcomes, but: (i) one study found that parent-focused anti-tobacco advertising was associated with *reduced* anti-smoking attitudes and *increased* odds of having smoked in the past month, and (ii) one randomised controlled trial found that Drinkaware posters led to an *increase* in consumption among undergraduate students in a simulated bar environment.

The recommendation coming out from this work is that policymakers should pay attention only to CSR activities that are both *based on the best evidence* on activities that are likely to work, and *robustly evaluated* against valued outcomes; and that professed ‘good intentions’ should not carry any weight in the absence of further evidence.

READ MORE

B. Baumberg, V. Cuzzocrea, S. Morini, P. Ortoleva, E. Disley, M. Tzvetkova, C. Harkins, M. Schlögl, D. Miller, E. Petrilli and F. Beccaria (2014): *Corporate Social Responsibility*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 11.2](#)



Exposure to alcohol advertisement affects drinking behaviour through deliberative (attentive) processing but not through automatic (pre-attentive) processing

cognitive processes
drinking
alcohol advertisement

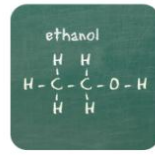
The present study investigated whether exposure to alcohol advertisement might affect drinking behaviour through automatic (pre-attentive) - or deliberative (attentive) processing, or both. It also examined whether the nature of alcohol advertisement effects differ between light and heavy drinkers of alcohol. In addition, we studied to what extent automatic and deliberative alcohol related processing could predict future drinking behaviour. Therefore, automatic and deliberative alcohol related processing were measured in light and heavy drinkers of alcohol following exposure to a block of alcohol and soft-drink advertisements. Prospective drinking behaviour was assessed one month later through a telephone interview.

The results indicated that acute alcohol advertisement exposure does not affect automatic (pre-attentive-) level alcohol related processing, but does affect deliberative (attentive-) level processing in male light drinkers. Furthermore, deliberative alcohol related processing predicted prospective drinking behaviour, while automatic processing did not. It is concluded that acute alcohol advertisement exposure influences alcohol related processing through the deliberative re-evaluation of validity tags in male light drinkers. Further, deliberative alcohol related processing might play a role in the development of addiction and hence may be a suitable target for prevention.

A recommendation that follows from this work is that, if these results can be replicated, preventive interventions targeting the deliberative processing of alcohol advertisement in light drinkers could be used to reduce the drinking promoting effects of alcohol advertisement.

READ MORE

Witteman, J., de Sousa Fernandes Perna, E.B., Cousijn, J., De Bruijn, A., Ramaekers, J. G., Theunissen, E., Kuypers, K., & Wiers, R. (2014): *The malleability of automatic and deliberative alcohol related processes by alcohol advertisement among light and heavy drinkers: Relationship with prospective drinking*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 11.3](#) (part II, study 1)



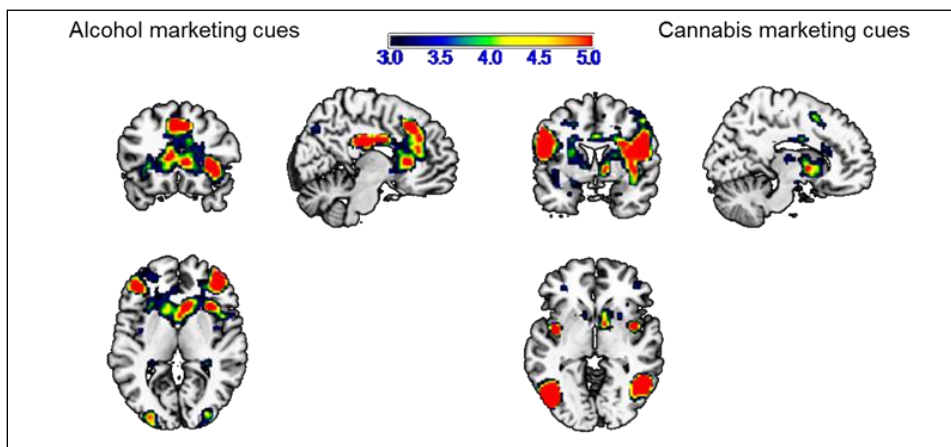
Activation of the brain reward system through alcohol and drug advertisement may directly increase the motivation for actual drug use

marketing
 addictive substances
 brain reward system

This area of work in ALICE RAP consists of a neuroimaging study about the effects of drug marketing exposure on brain activity. The study was aimed to examine the impact of alcohol and cannabis marketing cues on brain reward neurocircuitry in alcohol and cannabis users during both abstinence and intoxication. The striatum is the primary brain region that is activated by stimuli associated with reward and motivation. Brain activation of drug users during abstinence was further compared to a group of non-drug users. Alcohol and cannabis marketing significantly increased blood-oxygen-level-dependent (BOLD) activation in the striatum during abstinence in all three groups (Figure 1). Striatal activation, however, decreased during alcohol and cannabis intoxication. The effect of drug marketing seems to be stronger when one has not consumed any drugs, yet appear to be decreased when one is intoxicated with drugs.

Based on these results the following recommendation for policy can be formulated:

- ➔ Alcohol and cannabis marketing increases reward sensitivity for drug-related cues and can therefore increase the motivation for actual drug use. A reduction of alcohol and drug marketing would diminish its impact, particularly in regular alcohol and cannabis users, by reducing brain exposure to drug marketing cues that motivate and prepare for actual alcohol or drug use.

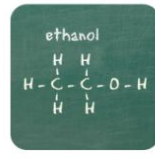


Note: Images are shown in neurological convention (left=left, right=right) and T-values are presented on a standard MNI T1 brain. The scale represents the T-values associated with the statistical analyses, which depicts the strength of activation in the positive range of a particular brain region compared to other brain regions, from least active (blue) to very active (red).

Figure: BOLD activation (red) following cannabis and alcohol marketing exposure collapsed over all three groups

READ MORE

Elizabeth de Sousa Fernandes Perna, Eef Theunissen, Kim Kuypers, Elisabeth Evers, Peter Stiers, Stefan Toennes, Jurriaan Witteman, Wim van Dalen and Johannes Ramaekers. (2014). *The effects of alcohol and cannabis marketing on brain activity*. Addictions and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 11.3](#)



Contemplate future addiction governance in Europe. A focus on collective values, long-term planning and restitutive solutions may pave the way for novel policy measures conducive to reframing the challenges of addiction

**foresight
challenges
addiction
governance**

A group of 17 European and 3 international drug disorder experts met in 2012, to construct a scenario depicting the situation in 2030+, and to indicate elements on the policy road towards that year. In doing so, they included relevant stakeholders and players as part of the descriptions. The two most prominent drivers of change were assumed, firstly to be the decisive values of European citizens -will there be a priority to self or to community?- and secondly, the nature of response from society -will there be a dominance of reactive, short-termist responses or a forethought, long-termist systemic change?-. The experts generated four contrasting scenarios by placing a major factor influencing the future on each of the two axes, which cross to form four quadrants (see figure). As an ideal future image, the «Solidarity prevails» situational scenario attracted undisputed attention, whilst not putting all elements from the remaining images aside when discussing the junctures towards the ultimate goal.

Although belonging to various scientific fields, the experts landed on a *societal* rather than an individual perspective when finalizing the scenario. Recognizing that much (but by far not all) of recent research on addiction and lifestyles is centered on theories in medicine and psychology, the positioning of this expert team is both challenging and interesting when it comes to future European policy and measures to curb addiction.

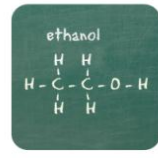
Both the need for a reframing of policy and a conceivable paradigm shift in the understanding of addiction policy and governance are implications touched upon by this expert assessment. However, European governance of addictions has no “quick fix”, according to this expert panel.

Nature of response

		React and mitigate	Anticipate and prepare
Individual responsibility first	Values	<p>Inequality prevails</p> <p>Intense individualism and short term reactions to addiction</p>	<p>Vocal players' arena</p> <p>Market driven society, prepares for future challenges of addiction</p>
	Social responsibility first	<p>Ad hoc treatment society</p> <p>Inclusive debate, challenges of addiction met when they occur</p>	<p>Solidarity prevails</p> <p>Feelings of societal vulnerability engender large scale, long term actions on addiction</p>

READ MORE

Karlsen, J.E., Gual, A., & Anderson, P. (2013): *Foresighting addiction and lifestyles in Europe 2030+*. Eur J Futures Res (2013)1:19. DOI 10.1007/s40309-013-0019-0. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 20.1](#)



Data from basic science, epidemiology and clinical research converge in suggesting that heavy use over time (HUOT) should replace current concepts of addiction or substance use disorders

substance-attributable
burden of disease
definition
HUOT
addiction

The following main reasons seem to point for heavy use over time as a better conceptualization for addiction or substance use disorders (Rehm et al., 2013; 2014b):

- Heavy use over time is responsible for the changes in the brain, and other physiological characteristics of substance use disorders.
- Heavy use is responsible for intoxication, and for the loss of control characterizing current definitions of addiction.
- Heavy use over time is responsible for the main social consequences of addiction such as problems to fulfill social roles.
- Heavy use over time is responsible for the majority of substance-attributable burden of disease and mortality.
- Heavy use over time as a definition would eliminate some of the current problems with definitions and operationalizations.

The publication of these principles has provoked a lively ongoing discussion (see e.g., Alcohol and Alcoholism, 2014, Issue 1, including Rehm et al., 2014a). Current efforts concentrate on clinical consequences of the above definitions.

READ MORE

Rehm, J., Anderson, P., Gual, A., Kraus, L., Marmet, S., Nutt, D.J., Room, R., Samokhvalov, A.V., Shield, K.D., Scafato, E., Trapencieris, M., Wiers, R.W., & Gmel, G. (2014a): [The tangible common denominator of substance use disorders: a reply to commentaries to Rehm et al.](#) (2013). Alcohol and Alcoholism, 49(1), 118-122. doi: 10.1093/alcalc/agt171.

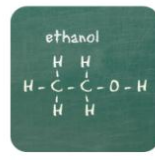
Rehm, J., Marmet, S., Anderson, P., Gual, A., Kraus, L., Nutt, D.J., Room, R., Samokhvalov, A.V., Scafato, E., Trapencieris, M., Wiers, R.W., & Gmel, G. (2013): [Defining substance use disorders: do we really need more than heavy use?](#) Alcohol and Alcoholism, 48(6), 633-640. doi: 10.1093/alcalc/agt127

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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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Viewing policy and regulation from an ethical standpoint, the prohibition of certain drugs and criminalization of users does not fulfil any of the requirements in protection of the rights of individuals to freedom of choice, reducing risks or promoting well-being of communities

**Governance
Public health
ethical
considerations**

Policy decisions and action in relation to the provision, selling and marketing of addictive substances or activities are typically plagued by moral overtones: e.g. “Why should taxpayers’ money be spent on treatment for people who just want to get high?” “It is wrong to interfere in lifestyle choices.”

Ethics, rather than moral reasoning, being more objective and impartial and based on validated evidence and agreed social goals, provides a more adequate basis for policy making, where the common good of the population should be the driving objective of the whole process and institutions of governance. Specific characteristics of the heavy use over time of addictive products (HUOT) mean that the regulation of this behaviour in the population is subject to some very unique ethical considerations.

Characteristics of HUOT which influence ethical considerations

- **HUOT is one of several *lifestyle choices*** - these are often seen as a part of a person’s identity and, as such, to be defended against intervention or manipulation, especially where the consequences of the choice are primarily seen as affecting only the individual (a debated point in HUOT, with a growing evidence base for the harm to others)
- **The determinants and impacts of HUOT can be found in a *wide variety of sectors*** - the drivers of harm due to HUOT span the private commercial, public and civil society sectors, each with specific myriads of ethical issues and nuances.
- **Because of concurrent intoxication, HUOT has been the subject of *extreme levels of social control*** e.g. as a basis for incarceration, which, it has been argued here and elsewhere, has been used as a tool of social injustice and perpetuates inequalities in societies.
- **Because of psychoactive effects and the compulsive nature of the behaviour, HUOT has a *parallel impact on individual freedom of choice*** - brain changes and neurological bias brought about by heavy use could be balanced against public health interventions and also exploited by marketing campaigns.
- **Economic returns on the sales of addictive products result in a *high degree of influence from the corporate sector*** in policy to address HUOT - It is important to note that individuals’ right to freedom of choice is impacted similarly by private producing and retailer companies’ marketing techniques, as well as ‘nudging’ public health policies.

Adopting a wellbeing framework for drug policy (see Science Finding on well-being) , where regulations and legislation are created with the aim of maximising population wellbeing and capital, can be seen as an effort to ensure that citizens and societies are treated ethically with regards to this behaviour.

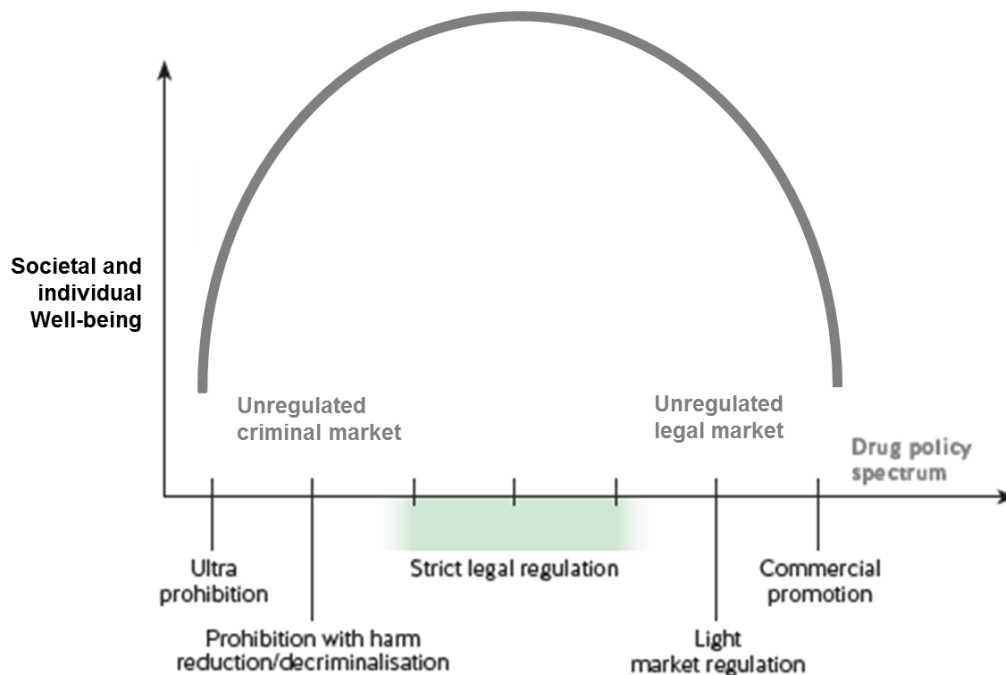


Figure: Well-being and the drug policy spectrum. (Adapted, with permission, from Rolles & Murkin, 2013)

However, if we adopt a well-being framework, we immediately have to call into question criminalisation and incarceration penalties for the consumption of psychoactive drugs which can lead to their heavy use, given that prison time detracts so greatly from well-being and contributes to entrenching stigma and discrimination.

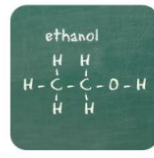
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The EU is a moderation structure for the travel of policy ideas and transnational trends. In order to understand how this structure opens up for innovations in policy, it is important to understand how governance is influenced bottom-up by civil sector actors, expertise and local and regional authorities

**policy ideas
civil society
addiction
innovation**

This [area of work in ALICE RAP](#) aims to contribute with advice for the future governance of addiction. We studied how new innovative practices develop in the addiction field and what could be the political impact of the different studies of ALICE RAP. How can the scientific results of the research project become a basis for the elaboration of new governance practices? How do we secure a good balance between expertise knowledge and the legitimate influence by organized groups of citizens?

The addiction problems as well as policy solutions are transnational in their nature. That means that the addiction problems and political solutions move beyond national borders. This is a situation where the political structures within the European Union become most relevant. The EU frames the transfer of policy ideas and the patterns for participation of interest groups and formal authorities.

In order to gain knowledge about the pattern of influence in this multi-level governance structure, we have focused especially on bottom-up processes. The organization of Cannabis Clubs in Catalonia is a concrete example on how a new model for regulation is constructed bottom-up in the governance structure. By organizing in a system of clubs, these citizens win the right to become a part of the democratic political process. They are included in the governance system because of their innovative practice. The Catalan case of cannabis clubs serves as a case of interest organization in a regional setting - paving the way for new principles in the regulation of cannabis.

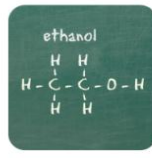
The future governance in the different areas influenced by addiction problems needs to balance between the ideal of efficiency on one side, and democratic participation, on the other. The regulatory capacity of the EU builds on a number of different methods captured in the term “soft law”. The system of different agencies, cooperation in research and a wide variety of coordination arrangements are part of top-down processes.

In the provision of advice to future governance, we should hit the balance between efficiency, accountability, openness and inclusiveness. In order to do so, we need to include both top-down and bottom-up processes in our recommendations.

READ MORE

Fjær, S., Colom, J., Sagvaag, H., Segura, L., Ramon, A.: *Balancing governance levels in the European Union*, in [Reframing addictions: policies, processes and pressures](#), ALICE RAP 2014. ISBN 978-84-697-1647-2. s. 30-36

Fjaer S & Sagvaag H (2015) Redesigning governance. Addictions and Lifestyles in Contemporary Europe - Reframing addictions project (ALICE RAP): [Deliverable 15.1](#)



New modes of civil engagement and a globalized industry represent new challenges for civil society and its role in the future governance of addictions

**governance
civil society
engagement
globalization**

Today, a big challenge for Civil Society Organizations (CSO) in the field of addiction policies is how to mobilize and engage citizens. Research shows that adoption of digital media has led to a shift in mobilization from organization to individuals. An identified risk with the increasingly personalized engaging formats for issues of the common good is that it might make it more difficult to achieve conventional political goals, sustaining a certain level of formal and centralized organization.

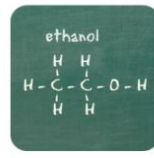
Business interests have more strongly entered areas of society that have traditionally been covered by the public sector or Civil Society (CS). There are several contemporary political situations which demonstrate that today CS is often driven into a double defensive and offensive position versus industry stakeholders. Dilemmas pertaining to the common good concern especially radically different definitions of what is to be considered public good; the ways in which the public good is to be achieved; and who is to gain from it. The most pressing front for Civil Society (CS) is to oppose industry interest in low income countries. These are regions in which abstaining often has been traditionally high, and thus make potential areas of new consumer recruitment.

READ MORE

Anderson, P., Braddick, F., Conrod, P., Gual, A., Hellman, M., Matrai, S., Miller, D., Nutt, D. J., Reynolds, G. & Ysa, T. (2016): *The New Governance of Addictive Substances and Behaviours*. Oxford: Oxford University Press

Hellman, M. (2015): *Civil society approaches to reducing the harm done by addictive substances and behaviours*. Plenary speech held at Pre-Conference Satellite Symposium, Tuesday 22 September 2015, Lisbon. European conference on addictive behaviours and dependencies

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Opioid substitution treatment is proven to positively impact drug users living conditions and well-being

Well-being OST Drug users

Opioid Substitution treatment (OST) has been present in European countries for over 40 years. However, OST implementation in the region is not harmonized, with countries having different approaches and levels of patients' coverage.

An analysis of the implementation of OST in four jurisdictions (Spain [Catalonia], Sweden, Netherlands and Poland) and a study of OST impact on clients' living conditions and quality of life were undertaken. The ALICE RAP project adapted the OECD "How's life?" model to the context of OST to gather information on the well-being and health of clients in OST in each of the mentioned jurisdictions. Results show that treatment improves several aspects of their life, from the general perception of health (fig.1) to employment status, material resources, social support and personal wellbeing (fig.2). Countries with a longer tradition of providing OST (Sweden -since 1967- & The Netherlands -since 1968- vs Catalonia -since 1983- & Poland -since 1992-) show better levels of improvement in most of the wellbeing dimensions (although this relation was not statistically significant). This evidence, together with wide availability of methadone, its low price, and the ease of its administration, strengthens the need of moving towards the harmonization of OST across Europe.

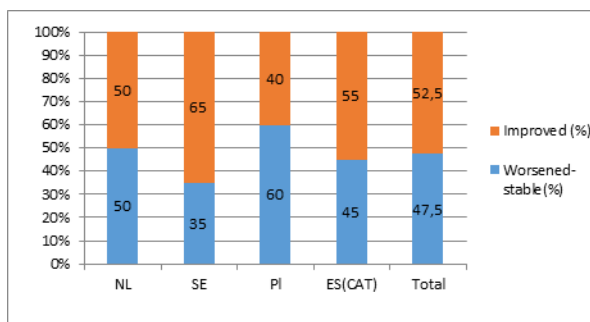


Fig 1. Perception of general health of clients in OST

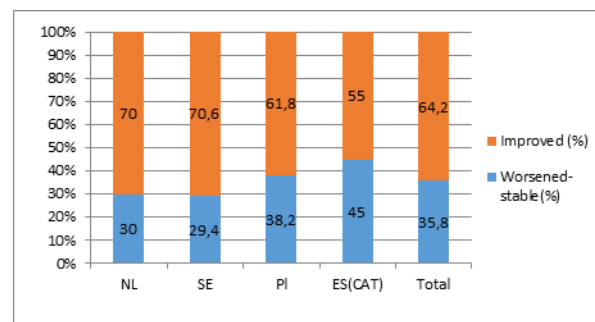
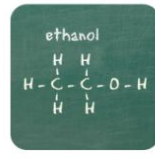


Fig 2. Well-being of clients in OST

READ MORE

Palacio-Vieira J, Segura L, Colom J, Moskalewicz J, Welbel M, Olsson B, Eriksson Tinghög M, Trautmann F (2014): *Living conditions, quality of life and wellbeing among clients in opioid substitution treatment (OST) in four European countries: Spain Catalonia, Sweden, Netherlands and Poland*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 13.2](#)

OECD (2011) *How's Life?: Measuring well-being*, OECD Publishing.



There is an urgent need for effective policy action to prevent gambling-related problems and address gambling disorders in Europe. ALICE RAP puts forward 24 recommendations for a comprehensive consumer protection policy to reduce gambling-related harm.

**gambling
policy**
consumer protection
online interventions

The growing gambling market in Europe and, in particular, the fast developing technology for interactive gambling (via Internet or mobile devices) is a major challenge for effective consumer protection. All proposals for regulation are faced with the challenge of balancing opportunities for legal gambling, on the one side, and effective Public Health measures to prevent gambling-related harm on the other. Furthermore, private and public gambling operators deal with competing interests in their marketing and business activities between maximizing profit and protecting gamblers from harm.

Within AR, the scientific Work Packages on gambling aimed to better understand the individual and environmental risk factors of risky, harmful and disordered gambling in order to improve public policy and early interventions. The [AR policy paper on gambling](#) highlighted that gambling activity has two facets: whilst for the majority of people it is a pleasurable recreational activity, at the same time, it poses a significant threat to public health in the shape of severe gambling-related problems and mental disorders. To understand why some individuals develop gambling-related problems or disorders, Chapter 6 of the [ALICE RAP e-book](#) (Anderson, Bühringer & Colom, 2015) presented an integrative, heuristic, working model on the determinants of the transition between different stages of gambling. The model proposes that gambling characteristics and social aspects are relevant aetiological factors of early stages of gambling, including onset of risky gambling. In contrast, the transition to harmful gambling, including gambling disorders, is instead determined by individual factors (vulnerabilities such as impaired brain reward circuitries or impaired cognitive control). Current scientific knowledge does not allow the precise definition of patterns of risk factors and their interaction. It is therefore necessary to systematically cover all three areas of risk factors in any Public Health concept aimed at reducing gambling-related harm. Such a consumer protection concept should aim to 1) prevent transitions into risky and harmful gambling, 2) facilitate the early recognition of disordered gambling and support for self-change or professional help in adults, and 3) ban gambling for minors (Bühringer, 2015).

The required regulatory framework should (Bühringer & Walter, 2016):

1. Cover all types of gambling in a limited, controlled market
2. Promote risk awareness
3. Protect the interest of social gamblers
4. Secure the needs for protection of vulnerable/disordered gamblers
5. Be supported by all stakeholders
6. Be effectively controlled by an independent regulatory body
7. Be designed as an adaptive learning system with input from monitored information and scientific expertise

Given that current research has shown that quantitative regulations, such as distance regulations, have limited or no effect on gambling-related problems, qualitative improvements for consumer protection regulations are recommended for a Public Health based approach to reduce harm from gambling (Bühringer & Walter, 2016). These includes regulations on the quality of environmental factors related to gambling (e.g., early information and education about gambling and related risks, limitations on advertising, exclusion of minors and banned players), quality of gambling services (e.g., transparency of game rules, procedures and characteristics), quality of prevention, early identification and treatment (e.g., monitoring of gambling behaviour, self and forced exclusion concepts, training of staff), quality of the regulatory body (e.g., responsibility for all gambling options), and quality of gambling research (e.g., making a distinction between scientific findings and expressed opinions).

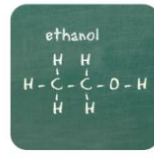
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Bühringer G (2015) [ALICE RAP findings on consumer protection for the prevention of gambling problems](#). Presentation given to the 12th meeting of DG GROW's Expert Group on Gambling, 18th September 2015, Brussels, Belgium.

Bühringer G, Braun B, Kräplin A, Neumann M & Slecza P (2013) AR Policy paper 2: [Gambling - two sides of the same coin: recreational activity and public health problem](#). ALICE RAP

Bühringer G, Walter K (2016) A Public Health-based Approach to German Gaming Regulation. Presentation given on the International Conference on Gambling and Risk Taking, 6th - 10th June 2016, Las Vegas, USA.



In Europe behavioural prevention interventions are currently implemented without a standard prior evaluation of their effectiveness, possibly leading to inefficient use of resources or even harmful effects

effectiveness prevention interventions evaluation implementation

Behavioural prevention interventions are complementary to prevention policies and have the potential to play a major role in reducing the burden of diseases associated to drug abuse and addiction. However, in Europe, no prior evaluation is required for the implementation of prevention interventions, thus leading to widespread dissemination of potentially ineffective or harmful interventions.

To tackle the overuse of interventions without scientific evidence and the underuse of effective interventions, and to foster the implementation and dissemination of effective interventions, Europe needs a central, transparent, evidence-based, context-aware, and research-oriented approval process for behavioral prevention interventions. This process would allow decision makers and implementers to access the necessary information and materials to select the best prevention intervention for any specific needs. Similarly to medicine approval systems, such a new approval process could be based on four consequential phases evaluating the effect of the following: single components (phase 1); combinations of components (phase 2); the final intervention-comprising only components found effective in the previous phases-via large, multicentre, randomized trials whenever possible (phase 3); and the long-term effects as well as the effects in different contexts (phase 4). Once phase 3 shows convincing results, the intervention would be approved for delivery to its target population.

An approval process for behavioural interventions to prevent drug abuse and addiction is likely to lead to positive consequences both for practice, by strengthening the role and impact of prevention in times of limited economic resources, and for research, by promoting the robust evaluation of all promising prevention interventions.

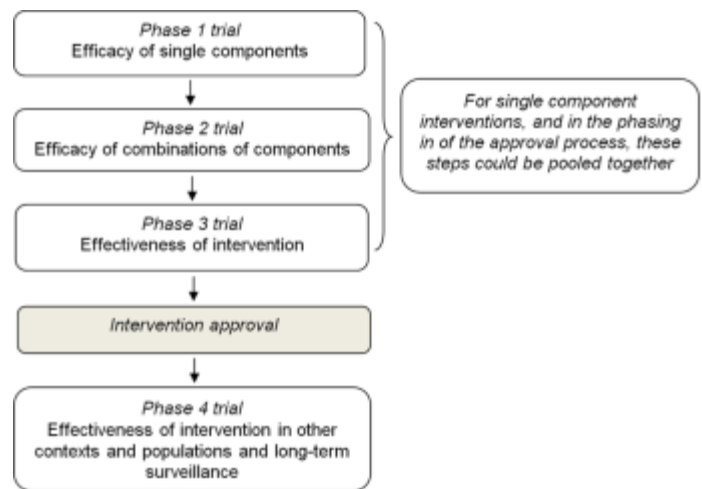
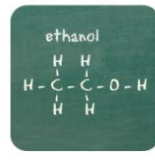


Figure: Proposal for a four-step evaluation and approval process of prevention interventions for drug abuse and addiction

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Faggiano, F., Allara, E., Giannotta, F., Molinar, R., Sumnall, H., Wiers, R., Michie, S., Collins, L., & Conrod, P.: [Europe Needs a Central, Transparent, and Evidence-Based Approval Process for Behavioural Prevention Interventions](#). PLOS Medicine, 2014, 11 (10): 1-6



To effectively tackle addictions issues the whole of government approach is needed moving towards a more integrated approach to public service delivery (network governance)

whole of government
 well-being
addictions
 whole of society

Four models of governance of addictions coexist in Europe: Trend-setters in illicit substances; Regulation of licit substances; Transitioning model, and Traditional approach. However, none of the four has been able to maximize results for legal and illicit substances, while pursuing a societal well-being. The whole of government and the whole of society approaches are needed to effectively reduce the harm done by addictive substances and behaviours.



The purpose of this framework is to align stakeholders and determine outcomes for the government as a whole (economic affairs, social affairs, international affairs, and government affairs) to be able to shape the governance model of addictions in the EU countries. Implementing a whole of government approach requires governments that provide leadership for whole of society approaches, only then will they be able to deliver global solutions to both individuals and society. Such model is composed of two constructs: strategy in policies and countries' organizational structures. Nevertheless two main governance challenges have to be taken into account: the effects of the economic crisis, and the contested role of the private sector in addictions policies. Therefore, to move addictions governance in Europe from its current status, to a well-being and whole of government approach, the relation with stakeholders should establish the rules of the game regarding which phase of the policy cycle and which typologies of stakeholders can provide a contribution for the public good, simultaneously to their own interests.

National drugs strategies and action plans: availability and scope

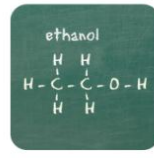
Source: Ysa et al. (2014) and EMCDDA (2015)

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Anderson, P., Braddick, F., Conrod, P., Gual, P., Hellman, M., Matrai, S., Miller, D., Nutt, D., Rehm, J., Reynolds, J., and Ysa, T. (2016). *The New Governance of Addictive Substances and Behaviours*. Oxford, United Kingdom: Oxford University Press.

EMCDDA (2015) *European Drug Report 2015*. doi:10.2810/084165. Office for Official Publications of the European Communities, Luxembourg.

Ysa, T., Colom, J., Albareda, A., Ramon, A., Carrión, M., & Segura, L. (2014). *Governance of Addictions: European Public Policies*. Oxford, United Kingdom: Oxford University Press.



Societal well-being and its domains can serve as a framework for a better understanding of addictive substances and behaviours, resulting in more effective and beneficial policy and governance.

**Well-being framework
 OECD
 societal progress**

There has been a growing academic and political interest in using measures of well-being in public policy as a complement to traditional measures of success and progress, such as gross domestic product (GDP). In the fields of addictive products and drug policy, ALICE RAP scientists argue that a well-being frame is particularly appropriate to enhance the understanding of the drivers of use and harm, and the potential of policies to mitigate harm and enhance resilience.

Societal well-being, as captured, for example, by OECD (Figure below) provides such a frame for improved governance. Well-being has various dimensions, including quality of life (health, education and skills, social connections, civic engagement, and personal security), material conditions (income, employment and housing) and sustainability over time. There is a 2-way interaction between all of these dimensions and drugs and drug-related harms. Analyses using this frame find that, whilst some drug policies may reduce health harms, they often come at the expense of adverse side effects including criminalization, social stigma and social exclusion, all of which also independently exacerbate health harms. A well-being frame calls for whole-of-society approaches that avoid criminalization due to drug use.

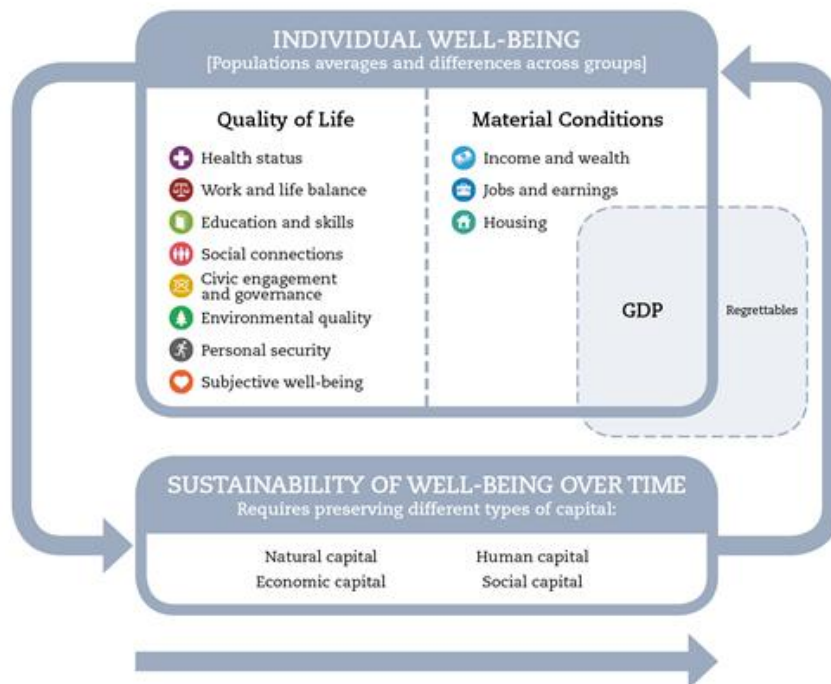


Figure OECD societal well-being frame. Source: OECD (2011).

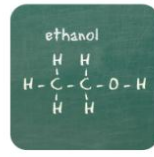
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OECD (2011). How's Life? 2015 Paris: OECD. <http://www.oecd.org/social/how-s-life-23089679.htm>

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The research leading to these findings has received funding from the European Union's FP7 under Grant Agreement n° 266813
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In the interests of public health, we need to rethink how we understand corporate power and manage it through policy structures, including adopting whole-government approaches, binding regulation, broadening the definition of ‘lobbying’ and tightening its regulation in relation to addictive industries in Europe and EU member states.

Corporate capture
industry
 transparency
lobbying

As WP12 of ALICE RAP reported, the webs of influence of addictive industries are much broader and more comprehensive and complex than generally imagined (see science finding 30 - channels corporate influence), involving actions to influence or ‘capture’ science, civil society and the media. Collectively, the goal of industry strategy to ‘capture’ all these domains is the end point of policy ‘capture’ and control, with a view to designing more favourable policy architecture. However, policy favouring the interests of corporations is often sorely misaligned with the promotion of public health and the private sector is currently a major driver of harm. There are several implications for those interested in improving public health arising from this understanding:

- Policy to reduce the harm resulting from corporate power needs to focus on the full range of industry networks and actions. This strongly suggests the need to take a *‘whole government’* approach to public health, which is important to ensure that one part of government does not undermine the stated policies of another part.
- Managing private actors requires transparency and skills of conflict resolution and negotiation. There may be circumstances in which the increasingly trending “partnership” with industry is appropriate, but such circumstances will be rare and will depend on a wide variety of factors, including wider policy trajectories. In most cases managing the private sector will require binding regulation
- Measures to enhance transparency must include better information systems for citizens and policy makers on corporate tactics and the range of channels used by corporations to pursue their interests; many of which, such as front groups and *astroturf* (groups falsely presented as grass-roots organizations), depend on secrecy to effectively exert influence.
- But transparency will not be enough. Measures will also need to be taken to create a level playing field, to stop corporate actors engaged in the production of potentially harmful products from gaining privileged access to policy-making and to determinedly resist the phenomenon of corporate capture.
- The current European lobbying register needs to be strengthened in several ways, for example: made obligatory for all lobbying groups to provide full data, gathering data over multiple years, verification of the information supplied.

- A broader definition of lobbying for transparency purposes could include the ‘revolving door’ between industry and political positions, which should be regulated with binding restrictions on post-employment opportunities, cooling off periods between changing positions and measures to minimize conflicts of interests.

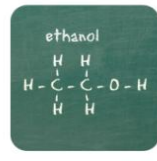
In a world where the national/EU boundary is porous and ‘national’ organizations blur with transnational corporations and where some trade associations operate at both national and EU-level, monitoring and management of conflict of interest have become more complex and the interaction between levels has barely been considered. Until it is effectively dealt with, the potentially negative impact of the addictive industries on the development of public health policies will be heightened.

READ MORE

[AR Science Finding 30 – Channels of corporate influence.](#)

ALICE RAP Deliverable Report [D12.1 – Wiki portal on addictions web of influence: A portal documenting the role played by economic actors in supporting and attenuating addictive behaviours.](#) ALICE RAP

Miller D, Harkins C & Schloegl M (in press, 2016) The Impact of Market Forces on Addictive Substances and Behaviours - The Web of Influence of addictive industries. Oxford. Oxford University Press.

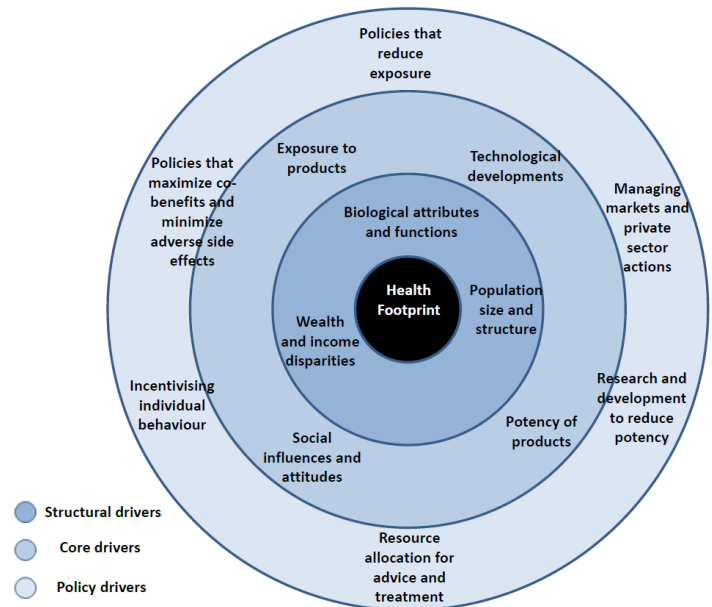


A health footprint can be used as an accountability tool to apportion the harm to health and premature death imposed by the different drivers of addictive drug use and behaviours

health footprint
addictive products
harm
accountability

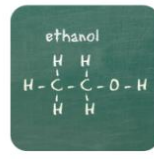
Structural drivers of harm from the use of addictive products and behaviours include biological attributes and functions, population size and structure, and levels of wealth and income disparities within jurisdictions. Core drivers refer to the processes, mechanisms, and characteristics that influence harm, sometimes through the structural drivers, and sometimes not. Core drivers of harm include drug potency and drug exposure levels, the technological developments that might influence these, and social influences and attitudes, including social stigma and social exclusion. Included in the policy drivers level are measures that reduce drug exposure, actions that promote research and development to reduce drug potency, measures that maximize co-benefits and minimize adverse side-effects of policies and actions, incentives for healthy individual behaviour, and legislation aimed at managing markets, such as the definition and enforcement of rules of engagement of the private sector. Policies and measures affect the core drivers of harm. The structural and core drivers may, in turn, influence policies and measures.

Placed at the centre of the drivers is the Health Footprint, the accounting system for identifying the determinants of drug and addictive behaviour-related harm and the management tool to evaluate opportunities by the public and private sectors and civil society to reduce harm. Using the metric of Disability Adjusted Life Years (DALYs), the Health Footprint can measure the impact of a range of structural and core drivers of impaired health and the policies and measures that impact upon them. The Health Footprint, thus, accounts for who and what causes the harm done by drugs and addictive behaviours. Drug and addictive behaviour-related health footprints could become standard components of annual reporting by relevant public and private sector bodies.



READ MORE

Anderson P, Braddick F, Conrod P, Gual A, Hellman M, Matrai S, Miller D, Nutt D, Rehm J, Reynolds J and Ysa T. (2016, In Press). The New Governance of Addictive Substances and Behaviours. Oxford: Oxford University Press



Interdisciplinary research activity is challenging but crucial for developing a more nuanced and comprehensive understanding of and addressing the factors that influence the development of harmful substance use and gambling behaviours

**interdisciplinarity
substance use
determinants
gambling**

Given the diverse range of disciplines involved in ALICE RAP [Work Area 3](#) (e.g. anthropology, economics, psychology and genetics) producing a coherent interdisciplinary synthesis on such a broad topic as the determinants of harmful substance use and gambling was demanding. Key challenges included the diverse approaches to science (e.g. positivism and constructivism) used in different disciplines and the variations in research methods and data that result from such contrasting underlying approaches (e.g. repeated experimentation compared with text-based description), as well as the complex and lengthy process of agreeing on definitions for key terminology (e.g. determinants).

However, despite these challenges it was evident throughout the project that the involvement of multiple disciplines was crucial for developing a broader understanding of the determinants of harmful substance use and gambling, as well as for developing policy and practice responses to problem behaviour. Interdisciplinary discussions enabled discipline experts to extend their knowledge of the factors that influence transitions in the development of harmful substance use and gambling, and through interdisciplinary discussion to negotiate a more nuanced understanding of the problem. Thus, despite the challenges, an interdisciplinary approach was also perceived to be crucial for developing responses to the complex, real world problem of harmful substance use and gambling.

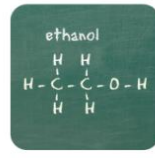
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Lees R, McLeod J, Holmes J, et al. (2012): *Determinants of risky substance use and risky gambling: an interdisciplinary report*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 7.1](#)

Gell L, Holmes J, Bühringer G, et al. (2013): *Determinants of harmful substance use and harmful gambling: an interdisciplinary report*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 8.1](#)

McLeod J, Gell L, et al. (2014) *Determinants of a reductions in harmful substance use and gambling: an interdisciplinary report*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 9.1](#)

Gell, L. Bühringer, G. McLeod, J. Forberger, S. Holmes, J. Lingford-Hughes, A. and Meier, P. S. (Eds.) (2016) [‘What determines harm from addictive substance and behaviours?’](#) Oxford: Oxford University Press.



Examining the determinants of transitions across a developmental trajectory of harmful behaviour can help with the identification of stage-specific (e.g. risky use, harmful use, cessation of use) determinants, which should result in earlier and more nuanced public health responses to the development of problem behaviour

Stage-specific determinants
harmful behaviour
transitions
public health response

This finding is derived from understanding generated through extensive interdisciplinary discussion of current published evidence by ALICE RAP [Work Area 3](#) discipline experts.

In the review of evidence by discipline experts it was identified that the majority of research around substance use and gambling is focused on the determinants of harmful behaviour, rather than transitions to risky behaviour or cessation of use outside of formal treatment systems. However, from the available literature we were able to identify that a number of different factors may play a role at various stages in the developmental trajectory of harmful substance use or gambling. For example, for transitions in the development of harmful cannabis use:

- ➔ Popular culture, peer influence and lifetime history of Post-Traumatic Stress Disorder are determinants for the transition to risky use but have not been identified as determinants for the transition to harmful use or reductions in use.
- ➔ Affordability, depression and social anxiety are determinants for the transition to harmful use but have not been identified as determinants for the transition to risky use or reductions in use.
- ➔ Social networks, marriage or partnership, and individual agency are determinants for the transition from harmful to low risk or cessation of use, but have not been identified as determinants for the transition to risky or harmful use.

Given the variation in determinants across the developmental trajectory, it is important that future research further examines stage-specific determinants of substance use and gambling behaviour, to develop a more detailed understanding of the complex interplay of factors that influence behaviour.

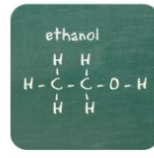
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Lees R, McLeod J, Holmes J, et al. (2012): *Determinants of risky substance use and risky gambling: an interdisciplinary report*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 7.1](#)

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McLeod J, Gell L, et al. (2014) *Determinants of a reduction in harmful substance use and gambling: an interdisciplinary report*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 9.1](#)

Gell, L. Bühringer, G. McLeod, J. Forberger, S. Holmes, J. Lingford-Hughes, A. and Meier, P. S. (Eds.) (2016) [‘What determines harm from addictive substance and behaviours?’](#) Oxford: Oxford University Press.

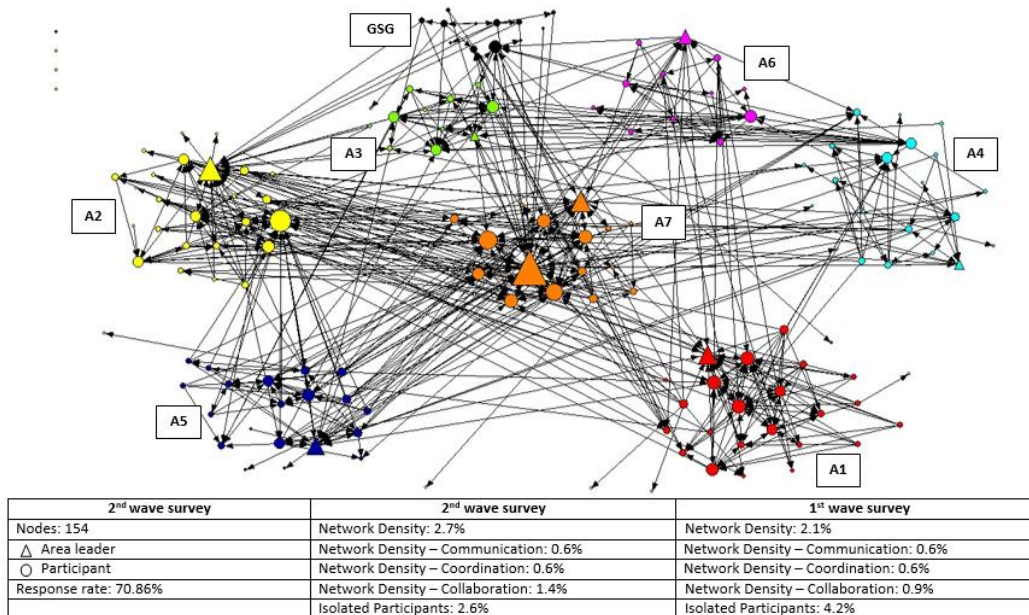


Trust, management, and networking are critical for the development of international research projects

networking
management
research
trust

The results of three surveys conducted at the beginning, at the midpoint and at the end of ALICE-RAP project indicate that three critical interdependent factors affect the evolution of this international research project. The first one is trust, not only among participants but also trust in the project. According to the data, the higher the levels of trust, the higher the perception of outputs and outcomes produced in ALICE-RAP. The second factor refers to the management and leadership of the project. In this vein, it is important that leaders and the coordination team search for goal congruency - making different opinions visible, exchanging perceptions and standpoints, and involving participants when seeking ideas and solutions - and facilitate the interaction and connections among participants. Related to the latter point, results show that the third critical factor affecting the development of international research projects is the networking among participants. Apart from the connections with other members in the same area or work package, it is very important that some participants connect with other areas, facilitating the exchange of information and the development of a cohesive and interdisciplinary project.

Alice rap network analysis: Connections between participants classified by area and role

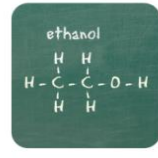


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Ysa, T. & Albareda, A. (2012) [Alice-rap network evaluation survey report](#) (1st wave)

Ysa, T. & Albareda, A. (2014) [Alice-rap network evaluation survey report](#) (2nd wave)

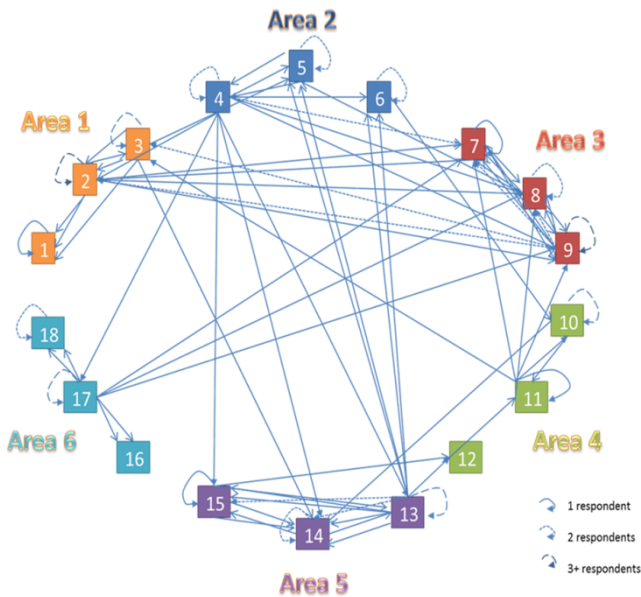
Ysa, T. & Albareda, A. (2016) Alice-rap network evaluation survey report (3rd wave): Forthcoming



Working in close collaboration, scholars from widely different backgrounds spanning the social sciences to the basic biomedical sciences succeed in providing policy makers with an integrated scientific framework for more effective substance use and addictions policy

**evaluation
transdisciplinary
research
collaboration**

New scientific arenas and working methods must be created, existing side-by-side with the traditional disciplinary structure of science. A laboratory for the development and testing of such arenas is the EU science project *Addiction and Lifestyles in Contemporary Europe Reframing Addictions Project - ALICE RAP*. Working together, ALICE RAP scientists create a synthesis of knowledge to support the redesign of European policy and practice to better address the challenges posed by substance use and addictive behaviours. Starting with 40 disciplines/specialities from 73 research institutions in 31 countries, ALICE RAP established 21 science teams in seven interrelated areas, and new ways to working across disciplinary barriers. The Figure shows data on the cross-area scientific collaboration that has been documented. To achieve this, innovative working and communications methods have been developed. One example is the use of computer-mediated communication (CMC) to facilitate roundtable dialogue when large numbers of scientists from highly divergent backgrounds are involved. The findings from analysing CMC data are used by ALICE RAP to fine tune functioning and collaboration in its very complex research network. CMC could be used by other types of public sector science and policy networks, to facilitate synergy and break down traditional barriers.



ALICE RAP to fine tune functioning and collaboration in its very complex research network. CMC could be used by other types of public sector science and policy networks, to facilitate synergy and break down traditional barriers.

ALICE RAP is a successful demonstration of how to generate synergy among sciences that address substance use and addictive behaviours. The ALICE RAP model could be used to advance scientific progress on other highly complex social challenges including mitigating human impact on climate, and human rights based approaches to coping with international migration trends.

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Mittelmark, M. B., Do Amaral-Sabadini, M. B., Anderson, P., Gual, A., Braddick, F., Matrai, S., & Ysa, T. (2012): [Computer-Mediated Communication in Alice Rap: A Methodology to Enhance the Quality of Large-Scale Transdisciplinary Research](#). The Innovation Journal, 17(3), 1

