



Effective Environmental Strategies for the Prevention of
Alcohol Abuse among Adolescents in Europe
(AAA-prevent)

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1 Final publishable summary report

Executive summary

In the past several years, adolescent alcohol consumption has become a growing problem in several European countries. Problematic drinking behaviours, such as binge drinking and the early age at which youths start consuming alcohol and other drugs have not only raised health concerns, but may also have implications for society as a whole. Against this backdrop, the AAA-Prevent project (Alcohol use Among Adolescents in Europe, Environmental Research and Preventive Actions) conducted a three-year study which examined the extent of adolescent alcohol and drug consumption in 25 European countries from a multilevel perspective.

While many alcohol-related studies stipulate that alcohol consumption merely manifests as the result of individual choice, the AAA-Prevent project recognizes the complexity of the issue at hand, and takes a closer look at the push and pull effects of a variety of risk and protective factors in different social domains and structural levels in 25 European countries. The scope of this study also allowed for an extensive comparison of the influence of the various domains and risk factors on youth substance use, between European regions and countries, taking into consideration the diversity of national alcohol policies and cultural and socioeconomic indicators. It is in essence these different contexts which played a central role in the analyses.

Furthermore, with a glimpse towards the future, the AAA-Prevent project, also documented and elaborated on the different effective adolescent substance use prevention programs and interventions in Europe, which are presented on the project website: www.aaaprevent.eu. The aim of this database is to provide policymakers and practitioners with a pragmatic overview of effective youth alcohol prevention strategies in Europe.

General questions of the research project are:

- What are the differences in adolescent alcohol and drug use and their associations with risk and protective factors between twentyfive European countries?
- Which are the factors associated with patterns of alcohol consumption of young people and which country profiles of alcohol use of young people can be made?
- What is the effect of these factors on early adolescent alcohol use and on use of illicit drugs? What is the additional effect when these factors are combined with structural variables on country level?
- What are the environmental prevention strategies, the role of normalisation around substance use and associated problem behaviours, and the spin-off effect of environmental prevention strategies on illicit drug use?
- What are the effective policies, programmes and interventions to reduce the levels of risk factors and adolescent substance use?

Summary description project context and objectives

This research project (Effective Environmental Strategies for the Prevention of Alcohol Abuse among Adolescents in Europe) is build upon a previous survey of self reported delinquency and substance (ab)use among young people in 25 European countries. The three year study (2010-2012) has five building blocks.

Building block 1. Comparative data of 25 countries

This project had the advantage of having access to a unique cross-national dataset of a study we conducted previously. We were able to use the ISRD dataset, which is based on a student questionnaire that was developed and validated by nineteen European Union countries, three associated European countries, and three ICP countries.

The database contained information about the use of alcohol, marihuana and hard drugs (LSD, Cocaine, Heroin, ecstasy and speed) of the adolescents in the past month, past year and lifetime use. The dataset also gave us the opportunity to analyse substance use in relation to anti-social behaviour or risky behaviour (delinquency) and to evaluate the many correlates of use with background variables such as age, gender, ethnicity and social class. The dataset also contained scientific and European added value, as it included risk factors such as lack of self-control, lack of bonding within the family, school disorganization, deviant friends within the context of peers and neighbourhood disorganization.

We also had access to answers to descriptive questions concerning alcohol use patterns and related risk behaviours, as well as risk and protective factors. In this phase of the research we were able to convey the results of the first analyses of cross-national similarities and differences.

We have compared the use of alcohol ever and last month and problematic drinking like binge and drunkenness. For each country we have compared for the outcome within the country with the outcome for the whole dataset (European level). These data is for each country available on the website www.aaa-prevent.eu. There is also an report where we present the results of the analyses of the consumption behaviour of the adolescents in a relative rank-ordering of prevalence of different types of consumption.

Building block 2. Science based research on problems and determinants

Next, we compared samples from 25 countries to distinguish between universal and context-specific influences on behaviour across countries and cultures (Brook et al., 2002; Jessor et al., 2003; Unger et al., 2002). In this phase we researched underage drinking, taking into account the influence of multiple contexts and different levels of influence .

The generalization of findings across countries added evidence as to whether or not risk and protective processes are universal predictors of alcohol use. Cross-national studies on the prevalence and etiology of alcohol and illicit drug use and related behaviours can make significant contributions (Hosman, 2000) to prevention science. Extending the study of risk and protective factors and testing theories in different cultural contexts are important steps towards developing a more universal understanding of underlying processes, including equifinality (multiple trajectories to the same outcome) and multifinality (similar trajectories to multiple outcomes) (Cicchetti & Rogosch, 1996; Schulenberg et al., 2001). It also informs us about general and culturally-specific interventions (Beauvais & Oetting, 2002; Unger et al., 2002). Cross-national studies can also be of assistance in identifying new predictors due to potentially increased but overlapping variations in predictors and outcomes between countries. An improved specification of the variation in the patterns of adolescent alcohol use, their association with other adolescent behaviours, and the extent of common versus specific risk influences can support the targeting of prevention efforts (Toumbourou & Catalano, 2005).

Thus, the next step in our three-year research project was to compare the prevalence and incidence of alcohol use among youths between 12 and 15 years old in 25 countries, and its association with risk factors (and protective factors if possible) within different contexts. We formulated specific research questions such as: 'What are the differences in the prevalence and incidence of alcohol use among youths aged 12-15 years old (the first, second and third grade in secondary schools) in each of the 25 countries?', 'Is there cross-national variability of specific dimensions or patterns, such as the initiation of alcohol use of this age group?', 'What can be said about the prevalence and incidence of other drug use and anti-social behaviour among these students?', 'Are there differences in the relationships between risk factors (and protective factors) such as norms, attitudes and perceptions on the one side and alcohol use in participating countries

on the other?', 'Do adolescents from different countries show different combinations of alcohol use, drug use and risk factors?', 'Are there specific use patterns according to gender, ethnicity, socioeconomic status and other demographic variables, and do these differences vary from one country to the other?', and, 'Can we observe gender or ethnic differences in the prevalence of alcohol use due to different risk factors (and protective factors)?

Building block 3. Multilevel analyses of data of youth and countries

In addition to individual, family, school, peer and community predictors, comparative international studies were able to provide us with the possibility of examining school, state and national policies and other higher, contextual influences on alcohol use patterns. These influences did not show a variation within a single country or bi-national study where these patterns were homogeneous. Cross-national analysis with sufficient countries will yield new information about local and national influences on early adolescent alcohol use and symptoms of alcohol use disorders. A cross-national analysis can potentially enable the cultural generalization of risk influences and alcohol consequences. In a study such as this, the influence of environments (e.g., school policy, socioeconomic status and rural location, state and national policy) can also be explored together with the effects of individual influences (e.g., pubertal development, behaviours, personal adjustment and attitudes, risk factors, protective factors). The results of this study are not only interesting to prevention science, they also provide politicians and practitioners with relevant information which may redefine their preventive frameworks and practices in different contexts and levels.

In this study, we did not merely research underage drinking, rather we studied the behaviours' association with the influence of multiple contexts, and different levels of influence. In our research we made a distinction between three levels of influence. The lowest is at the individual level. These include the 57.771 youths and their covariates and risk factors. The research took place at 1.344 schools. These schools influence the behaviour of the youngsters, which we took into consideration by defining this context as the second level of influence (by modelling but not by explaining). The third and final level is the national level. The youngsters are spread out between 25 countries. In our study, it was relevant to ask ourselves how a country influences youth alcohol use and whether this influence could partly be explained by, for example, a specific drug policy or other structural indicators.

The importance of the context and environment should not be underestimated as it strongly influences the development and behaviour of people. Today, these contexts are more fluid, and are constantly changing. The complexity of the matter at hand is overwhelming. It is difficult for governments to control and restrict influences at all the different moments and levels. They must search for other more accessible ways, without running the risk of neglecting the importance of these contextual influences. Risk factors are present at many different levels. In regards to alcohol use, it is important to make distinctions between the influences of different levels, but also to observe and take into account the restrictions as well as the possibilities on each level. For example, in terms of alcohol use: individual behaviour, culture (e.g. ethnicity), local environment (e.g. accessibility of alcohol) and national environment (e.g. national policy) are important. We felt it important to incorporate this multilevel methodology as well as multilevel governance in our study.

The stark figures on youth alcohol use strongly suggest the need for more knowledge about the initiation of alcohol use among young people within Europe and between different European countries. Although youth alcohol consumption is especially serious in specific countries, other countries are not immune to this social problem either. Therefore, it is important to examine this issue in a broader and cross-national perspective at a European level (and sometimes more international level, when we compare the results with data from other countries). In order to do so, data from multisite studies are needed, particularly from cross-national studies that provide sound epidemiological data using standard, uniform methodological approaches (Pirkis et al., 2003).

In this phase of our work we also clustered the countries based on variables which measured the policies of the countries concerning adolescent alcohol and drug use, as well a country's' socioeconomic status. These serve as national structural indicators in our study. These structural indicators (mainly concerning alcohol policy, society/economy and culture) provided us with a broader context to make sense of our results. We used these upper-level data in comparative analyses, and we collected statistical data which is internationally comparable, readily available, and has clear policy- or theoretical relevance. The data collection consisted of a series of tables designed to elicit responses in the form of data, primarily

statistical data, on the main national indicators for the period closest to the administration of the ISRD-2 survey. A core list of indicators collected for our study contains information about: alcohol policy socioeconomic conditions and national culture. Our data was derived from, for example, Crime and Victimization data, World Values Survey data, and the World Health Organization.

Building block 4. Evaluation analyses of prevention policies in countries

Besides this empirical knowledge about the initiation of alcohol use, it is also important to have clear insight into alcohol prevention policies and programmes aimed at influencing the use of alcohol amongst youths. For this purpose, multilevel data analyses of young people (Building block 3) were contrasted with analyses of effective policies and programmes in Europe (multi-level governance).

In our understanding, multi-level governance is defined as ‘the sharing of policy-making competences in a system of negotiation between nested governments at several levels (supranational, national, regional and local) on the one hand, and private actors (NGOs, producers, consumers, citizens, et cetera) on the other’ (Van Tatenhove & Liefferink, 2003). Multilevel governance is also relevant in another sense, as in this new paradigm of multilevel governance, horizontal governance arrangements gain weight and civil society organisations become more important. Many environmental strategies which prevent adolescent alcohol abuse have been developed in collaboration with civil society, social partners, non-governmental organisations and other relevant organisations. Local and national governments are only active in setting up the preconditions by, for instance, providing information about the prevention of alcohol abuse, or by supporting specific groups. Civil society organisations are just as important as governments, as they play a crucial role in creating stepping stones for young (disadvantaged) people to become involved in different forms of environmental strategies.

In the participating countries, we carried out this multi-level policy analysis by analysing the policies, programmes and interventions used towards the prevention of alcohol and other substance abuse and asked ourselves questions such as: ‘Which national policies do national governments pursue with regard to youth alcohol consumption?’, ‘Which programmes and interventions target the different risk factors (in families, schools and communities)?’, ‘Which programmes and interventions target the individual behaviours of young people?’, and, ‘Which programmes and interventions are effective at preventing underage drinking?’

Building block 5. Possible effective strategies for the future

This study (*‘Alcohol use Among Adolescents in Europe’*) aims to compare knowledge about adolescent alcohol use and the influences of social determinants on different levels, as well as the identification of different possible effective strategies which prevent adolescent alcohol abuse in different European countries. Policies and prevention concerning adolescent alcohol use differ not only between European countries, but also within. In this project we made an inventory of the current environmental strategies used by the European countries involved in the study.

First we identified which national policies must be pursued by national governments to prevent the use of alcohol amongst youths? Second, we identified which interventions are used within the prevention strategy towards alcohol and drug use, per country. Prevention science is based on the premise that empirically verifiable precursors (risk and protective factors) predict the likelihood of undesired health outcomes including substance abuse and dependence. Prevention science postulates that negative health outcomes such as alcohol abuse and dependence can be prevented by reducing or eliminating risk factors and enhancing protective factors in individuals and their environments during the course of development. Which effective or promising programmes and interventions are available and what different risk factors do they target (families, schools, individual and communities)? A growing number of interventions have been found to be effective in preventing adolescent tobacco, alcohol, and other drug abuse, delinquency, violence, and related health risk behaviours by reducing risk and enhancing protection. Despite advances in the science, which evaluates effective preventive interventions, and investments in community-wide preventive interventions, many countries continue to invest in prevention programmes with limited evidence of effectiveness. Thus we compiled a manual of the most promising and effective programs currently being used in the 25 participating countries. These programs and interventions are also presented on the website of the project: www.aaaprevent.eu.

Description of main S&T Results/foregrounds

Alcohol use is quite common among adolescents in Europe

Based on our data we can conclude that alcohol use is quite common among European juveniles between the ages of twelve and sixteen, and that adolescent alcohol use is a major concern in all European countries. Generally, when juveniles drink alcohol they mostly consume low alcoholic beverages such as beer or wine, as opposed to hard liquor such as whiskey or rum. On a European level, 60,4% of young people in the first three classes of secondary school have ever consumed beer, wine and breezers during their lifetime, 34,2% have consumed spirits, and 9,7% have used cannabis. The prevalence rates for last month substance use rates were nearly half; 28,1%, 13,5% and 3,7%, respectively. Furthermore, the number of adolescents who drink increases with age and school grade. Nonetheless, not all adolescents consume alcohol. More than one third of students (38,6%) were abstainers, meaning that they don't consume any alcohol or other substances at all. Abstinence is more prevalent among females compared to males. However, no differences were discerned between girls and boys with regard to alcohol consumption, during last month or ever. Our study also indicated that cannabis use is more prevalent among boys than girls (measured as lifetime and last month use).

Regarding the prevalence rates for the 25 European countries separately, Estonia ranked the highest for ever and last month use (86,0%; 45,9%), while Iceland (21,4%; 9,7%) and Bosnia & Herzegovina (31,6%; 8,2%) ranked the lowest for low alcoholic beverages and spirits for lifetime as well as last month use.

When we took a close look at specific alcohol use patterns of youngsters we were able to uncover many differences. At the hand of a hierarchical cluster analysis, we were able to identify four different groups of alcohol consumption patterns: the majority of students were *mild users* (73.6%) who seldom drank and, when they did, consumed very few alcoholic beverages; the second group consisted of *moderate users* (19.9%) who drank relatively often and consumed a moderate amount of alcoholic beverages; the third group consisted of those who often drank moderately, but consumed a large amount of alcoholic beverages (*high amount use*, 2.7%); the last group comprised of those adolescents who drank frequently but consumed a moderate amount of alcoholic beverages (*frequent use*, 3.8%).

Heavy episodic drinking (the consumption of more than five glasses of beer, wine or breezers) seems to be a very common consumption pattern in European countries such as Ireland, Finland, Denmark, the Netherlands and Germany. Similarly, drinking more than 5 units of spirits during one occasion seems to be very popular in countries such as Estonia, Czech Republic, and Poland. The lowest proportions of adolescents who are involved in binge drinking or have ever been drunk are from South European and Balkan countries (Bosnia & Herzegovina and Armenia).

From our data, we can conclude that there are both differences and similarities between countries when it comes to alcohol consumption patterns. The Nordic drinking style, which is characterized by consuming large quantities of spirits was more common in Estonia and Lithuania. While, a drinking culture characterized by the consumption of mostly beer, wine and breezers along with high levels of episodic drinking was more common in West and Central European countries. The Mediterranean style of alcohol consumption, which implies drinking frequently but in moderation, was more prevalent in France, Portugal and Bosnia & Herzegovina (Felson et al, 2009).

Generally, more males were engaged in binge drinking compared to females. Prevalence rates rose with increasing age and school grade. Adolescents who were grade repeaters became drunk more often compared to non-repeaters, but this correlation might have been due to the fact that repeaters were generally older. No gender differences were found for drunkenness.

Notwithstanding the general picture, we are confronted with a differential picture of youth alcohol consumption in Europe. Our data illustrate that youth alcohol and drug consumption differ between the countries involved, also in terms of the different kinds of substance use. Besides the general picture, these differences should be taken into account when we take a closer look at European policies on underage drinking.

Adolescent alcohol use is strongly associated with risk factors in different domains

To better understand alcohol and drug use, we tested the importance of risk factors in the different domains in which youngsters grow up in such as: their families, schools, neighbourhoods and their friends. We looked at which risk and protective factors were related to juvenile alcohol use and whether similarities or differences could be detected between countries. In our study, we started with a factor on the individual level, namely 'low self-control'. We know that *self-control* is an important factor related to juvenile problem behaviour, and our study also indicated that a strong relationship exists between low self-control and juvenile alcohol use and other risky behaviours. The effect of self-control on alcohol use is relatively strong whereby the strongest effects were found for excessive drinking (binge drinking, drunkenness) and cannabis use. Although the distinctions in the self-control subscales (such as temper or risk taking) were observable and statistically significant, the general level of self-control varied less apparently, offering a solid base for the international comparison. The effects of low self-control on substance use have a relatively universal character. More importantly, we observed that low self-control is much more common among students living in disorganized schools and neighbourhoods, and among students living in disrupted families or families characterized by low bonding and parental supervision. Thus, from a prevention perspective it is interesting to know that low self-control is more prevalent in certain vulnerable social groups.

Based on this study, we may conclude that *family*-related factors have strong effects on adolescent alcohol and cannabis consumption, both in quantity and frequency. Furthermore, it can be said that protective and risk factors can also be related to a youths' family. For example, a two-parent family structure, high family social control and strong family bonding, reduce the quantity and frequency of alcohol and soft drugs for ever and last month use. We also found that drinking with the family act as a protective mechanism for problematic alcohol behaviour. However, family affluence and negative life events were considered risk factors within this domain. From our results, we may conclude that during adolescence, the role of parents is important when it comes to alcohol use. A good relationship between parents and young adolescents and strong parental control decreases the likelihood of alcohol consumption.

Within our theoretical model, *school* is one of the most important settings for influencing adolescent alcohol and drug use. The school can be considered a target arena for promoting health behaviours. In almost all European countries, students who spent a lot of time doing homework, enjoying school, and (although to a lesser degree), perceived their school climate to be positive, have lower prevalence rates on all alcohol and drug outcomes. It is, on the other hand, the disaffection from school, as expressed through truancy, which contributes strongly to alcohol use. The fact that truancy shows such strong associations with alcohol and drug outcomes is in itself not surprising because earlier studies have consistently showed that this form of school misconduct is strongly correlated with other risk behaviours (Jessor & Jessor, 1977; Petraitis et al., 1995). Other school-related variables, such as school attitude and school disorganization, had considerably lower effect sizes.

Our study also showed that a youths' *neighbourhood* has an influence on their drinking behaviour. Especially living in a deprived neighbourhood, characterized by disorganization (abandoned buildings, high crime rates) increases the likelihood of drinking among juveniles, while a lack of social integration and bonding with the neighbourhood increases all kinds of substance use. Adolescents who experienced social cohesion or felt connected to their neighbourhood were less likely to drink alcohol (beer, spirits) and used soft and hard drugs less often. When youngsters described their neighbourhoods as disorganized, they showed higher levels of alcohol and drug use.

During adolescence youths spend more time with *friends* outside the house. The juveniles involved in this survey varied enormously in terms of their lifestyles and the way they spent their leisure time. We found that alcohol use is strongly associated with the social lives of youngsters (*peer*-related factors). When youngsters spent more time with their friends and frequently went out at night, they were more likely to drink alcohol. These peer risk factors were also related to other forms of substance use, such as cannabis and hard drugs. On the other hand, adolescents who spent more time engaging in individual activities at home (e.g., reading books, doing homework) were less likely to drink alcohol. Overall we can conclude, that youngsters who are more peer-oriented have a higher probability of drinking more alcohol than youngsters who are more family- or individual orientated. Having a large group of friends who regularly drink has a large impact on ones own excessive alcohol use. This study also found a strong relationship

between, having friends who are delinquent or being a member of a group who commits illegal acts (gang membership), and the use of alcohol.

We know that substance use is generally linked to all kinds of juvenile problem behaviours, but with the IRSD-data we were able to examine one of these problem behaviours namely *delinquency and victimization*, more in depth. In agreement with the literature (Finkelhor et al. 2005; Shepherd et al., 2006), we observed that alcohol use was significantly correlated to victimisation. In particular, alcohol consumption proved to be closely associated with the experience of being a victim of a violent offence, a finding, which is in line with those of other studies (Morojele & Brook, 2006). These results were confirmed by our analyses of the individual countries, which revealed that the link between alcohol consumption and victimisation was particularly close in Scandinavian countries, while it was less evident in Southern European countries. Another interesting discovery was that all the alcohol consumption indexes were more strongly correlated with violent offences than with property offences. A possible explanation for this may be that violent offences are more likely to be committed impulsively than property offences. In addition, it is worth mentioning that alcohol use was strongly correlated with the variable “versatility”, suggesting that the gravity of delinquent behaviour (represented in this case by committing several types of offence) is closely linked to alcohol consumption. The results also seem to suggest that the presence of socially well-integrated peers, as opposed to the absence of friends, is a protective factor against alcohol use. If, however, the peer group is of a delinquent nature, all forms of alcohol use increase significantly. Based on the results of these analyses, we can conclude that there is a strong association between delinquency and alcohol consumption in all of the individual countries. Moreover, in every country, alcohol use was more strongly correlated with “versatility” and violent offences, than with property offences.

Up until now we looked at the influence of these factors on each separate domain. We then proceeded to assess the relative influence of risk and protective factors of alcohol use in five domains in a multivariate model. The results of this full model confirmed our hypothesis: the ecology of adolescent alcohol use is multifactorial and the risk and protective factors from different domains are correlated. Within the full model, peers and self-control are highly predictive of alcohol use because they directly focus on the most immediate precursors of alcohol use. In concurrence with the literature, a more peer-oriented lifestyle showed the strongest relationship with alcohol use. Given that drinking is largely a social phenomenon, and given that adolescents often drink as a way of integrating themselves into groups and gaining status (Crosnoe, Muller, & Frank, 2004), it should not come as a surprise that a more peer-oriented lifestyle is so strongly associated with alcohol use. The strong peer effect makes sense because one of the items in the lifestyle scale measures the frequency of going out at night: a behaviour strongly correlated with alcohol consumption (Piko & Vazsonyi, 2004). Not surprisingly, the strongest predictor of alcohol use is the presence of deviant activities in one’s peer group. Teenagers who engage in deviant activities with their friends more often or who have friends who do so, are more prone to use alcohol in a problematic way. Although the results regarding family, school and neighbourhood factors indicate a lower association in comparison to peers and low self-control, one cannot conclude that these factors are much less important in the etiology of adolescent alcohol use, and thus deserve less attention in prevention strategies.

Finally, in regards to the cross-national aspect of the study, the relative importance of the different domains was more or less equal for each country cluster (Western, Nordic, Central-Eastern and Mediterranean). An important conclusion of this study is that the relative importance of the risk and protective factors within the different domains is more less equal between the countries. The impact is the same in all the countries. There are no large differences between the countries for the effects of theoretically relevant predictors. The only exception was for self-control, where we observed that the direct effects of this trait were much less strong (when compared to the other domains in the model) in Nordic countries than in Mediterranean, Western and especially Central-Eastern European countries.

The country where you live influences alcohol use

So far, we know that there are various risk and protective factors within the different domains that are of influence on juvenile alcohol use. We did not find any large differences in terms of predictors and juvenile alcohol use associations between the countries involved. Risk and protective factors are of similar influence in different countries such as, Iceland, Cyprus, Poland and the Netherlands.

Another finding of this study was that although it is quite common for juveniles to drink alcohol in all of the participating countries, the country of residence does exert influence on a youths’ drinking pattern. In

those countries with strict alcohol policies, such as the Nordic European countries, we found that more young people between the ages of 12 and 16 do not drink at all. However, the Nordic countries do exhibit complex drinking patterns. Danish youths rank the highest in most of the comparisons, especially concerning risky alcohol use, while Icelandic youths rank the lowest. Youths living in Finland, Norway and Sweden are often ranked somewhere in between. In the Balkan and Mediterranean countries, where youths are more likely to consume alcohol with their families at home, youths are more likely to drink moderately and have less risky drinking patterns. In these countries, the number of juveniles who drink excessively is much lower. Quite the opposite occurs in Western and Central European countries, which have a drinking culture geared toward intoxication, while the drinking culture of these countries is characterized by drinking more frequently but also more moderately (see also Järvinen & Room, 2007).

Our findings support the assumption that underage alcohol use is not only the result of individual choice. Drinking behaviours are strongly influenced by the social context in which you are born, grown up and live. We found that individual risk and protective factors are associated with youth alcohol use in different countries. Risk and protective factors within the different domains are quite universal and they predict problematic drinking behaviours of juveniles in a similar way. Nonetheless, we did find country differences in regards to juvenile alcohol patterns when we looked at problematic or risky alcohol use. By combining all of the different individual level variables (sociodemographic factors, risk factors and protective factors) we were able to analyze the variability of problematic or risky alcohol use and the influence of the social context more efficiently. Important was the question of whether country level indicators could explain partial variances of problematic or risky alcohol consumption.

When we combined all of the individual predictors into one model, we discerned strong effects for peer-related factors, such as delinquent friends and deviant group behaviour, and low self-control were apparent. However, there still remains a substantial unexplained variability of risky alcohol use on the country level. Due to the fact that we determined such a high level of variability of youth alcohol use between countries, we studied the country influence extensively. Systematically, we analyzed a broad range of country-level indicators, which (based on theory) may have an influence on risky alcohol use. In succession, we looked at the influence of alcohol policies on risky alcohol use: affordability, availability (beer, spirits), restrictions on juvenile drinking, sale restrictions, severity of alcohol policies, legal blood alcohol limit (whilst driving a vehicle), national policies (per capita consumption, proportion of alcohol disorders, importance of friends, percentage of youngsters drinking spirits alone, drinking culture), and socioeconomic conditions (human development index (HDI), life expectancy, gross domestic product (GDP), education index, global competitiveness index, unemployment rate).

We used different, but similarly measured country variables and detected a strong relation between the individual variable, delinquent friends and the country level variable 'alcohol culture'. We found that in countries where risky alcohol use is likely to be considered as problematic behaviour, the association with having delinquent friends is stronger than in those countries where there is a more tolerant attitude toward juvenile alcohol use.

Although there was a strong variability of risky alcohol use between countries, other structural indicators could hardly explain these differences. Perhaps these indicators are too rough and don't take the variability within the countries into account. It is also possible that we did not find the right indicators to explain underage drinking. A third possibility may be that the similarities of the European countries on these indicators are too strong. A last possibility is that the number of participating countries (25) was too small for effectively analyzing this influence.

Due to the complexity of the model and relatively low number of countries used in this study, we also used Bayesian statistics to analyze whether some national policies had a stronger effect on the type of drinking pattern. Besides risky alcohol use, we also looked at abstinence. The assumption was that national policies may have more of an effect on delaying juvenile alcohol consumption rather than on alcohol-related problematic youth behaviours. We found that there are some indications that strict national policies do have an influence on lowering risky alcohol use and promoting abstinence amongst youths. Sale restrictions and strict policies do lower the probability of risky alcohol use among juveniles and increase the number of abstainers. Affordability and availability are considered to be factors which promote alcohol use. In our data, we saw that the affordability (which means that it is easier for youngsters to get alcohol) has no influence on risky alcohol use. However, we did see that the less affordable the alcohol, the more likely it is that juveniles do not drink at all. This is in line with our other results, which indicate that general

environmental indicators (defined as Social Economic Condition) such as the Human Development Index, life expectancy, and the Education Index, are not associated with juvenile alcohol patterns. Only unemployment lowers the probability of risky drinking patterns, perhaps due to the fact that, in that case, juveniles would not have the money to drink alcohol frequently. However, all these effects disappear when we add risk and protective factors to the full model.

The main conclusion here is that the drinking culture of a country influences the use of alcohol among youngsters. In cultures where it is more common and accepted to drink alcohol, youths are less likely to abstain and more likely to consume alcohol in a problematic manner. The amount of alcohol consumed by adults and the number of youngsters who drink strong alcohol is also of influence on the risky alcohol use.

Thus, when it comes to juvenile alcohol use, it isn't only alcohol policies that matter, but it is especially the attitude and norms of adults which influence juvenile alcohol use.

Policies, programs and practice

The development of effective preventive and early interventions for youths who consume alcohol is important for several reasons. Besides the high clinical and social demand for such programs, effective strategies could possibly influence the typically negative course followed by early-onset drinking and prevent early onset associated psychological problems, such as depression and delinquency. Investing in youths is crucial because youths are often responsible for a high proportion of the burden of health and life course effects. For many years, multiple preventive policies, programs and practices have been broadly implemented in different European countries. Together, they show a very divergent picture of prevention in Europe.

In recent years, a number of critical questions have arisen: Are these preventive efforts really effective? Are they activated in the right place, at the right moment and as early as possible? On which theoretical knowledge and practical experiences are they based upon? There became a real interest with the promise and possibilities of *evidence-based programs* in science, policy, and practice worldwide. From that moment on, a growing number of interventions have been critically tested and found to be effective in preventing adolescent substance use and related health risk behaviours, as well as in tackling empirically verifiable precursors (risk and protective factors) which predict the likelihood of these undesired outcomes. As a result of those investments, a systematic way of thinking about effective programs and best practices in health prevention and promotion arose. This can be summarized as: “those sets of processes and actions that are consistent with health promotion values, theories, evidence and understanding of the environment, are most likely to prevent alcohol use among juveniles” (Kahan & Goodstadt, 2001). Classifications of prevention programs were made, pertaining to different groups of youngsters (universal, selective, indicated) as well as different categories of contexts and involved actors (individual, family, school, community, as well as multi-component). Nonetheless, many countries still continued to invest in programs or interventions with limited evidence of effectiveness.

In this study we explored the use of policies, programs and practices in the 25 European countries. Experts from all of the countries made an overview and an inventory of preventive initiatives on the meso level (school, community) and micro level (family and individual). Based on scientific literature and ‘grey’ literature and inclusion criteria, we first determined what was on the status quo per country. Due to the high level of heterogeneity among reports and the lack of scientific evaluation of programs, we asked national experts to choose and propose two good interventions (on each level: meso and micro) as ‘best national practice models’ for the prevention of underage drinking according to their competence and experience. The proposals were discussed in four cluster seminars. Subsequently, three researchers from three countries (Estonia, Italy and the Netherlands) evaluated 391 programs and interventions from 24 European countries (none from Bosnia & Herzegovina could be collected). These programs were then scored on the basis of three evaluation criteria (theoretical background, implementation and outcome) and ranked in an overview. The AAA-Prevent team defined an inventory of 28 ‘good’ interventions according to their overall score. These programs were then placed on the website, with information about the theory (goal, domain, age, target group, and theoretical framework), implementation (method, relevant literature and references to manuals of the programs) and outcome (effect research) as well as their scores (www.aaaprevent.eu). The website also offers an overview of these national programs that can be used in other European countries. School prevention programs, as well as individual, family, community and multi-component programs in Europe are also highlighted. Good programs within separate national states (for

example Supra-f in Switzerland) as well as good programs, that have been implemented in different countries simultaneously (for example Unplugged), have also been made visible.

Based on our study, we also identified a substantial lack of evidence in evaluation and a strong need for scientific research in the area of underage alcohol prevention. Up until now, scientific work has mainly been dominated by process evaluations in Europe, while outcome evaluations remain quite rare in this field. Outcome evaluations should be encouraged and supported, and the quality of evaluations on long-term program effects should be improved. At our regional seminars, practitioners working in the field of prevention, have pointed out that they also require more knowledge about the transferability of these programs: Can programs be implemented in other local settings and to what extent can programs be adapted to the cultural environment without risking the loss of quality. Europe must take this field of effective youth programs more seriously during the next years. Prevention programs should be seen as a long-term investment, rather than just a short-term expenditure.

Lessons learned from prevention workers and practitioners

In order to get a better view of what works in prevention, a series of seminars and focus groups were organized with experts in the field of alcohol prevention. One of the topics discussed extensively was the role of culture in the development of country-specific alcohol consumption patterns. The analyses in this report indicated that clear differences in drinking cultures exist between the various European countries. To initiate change in drinking norms, beliefs and attitudes, it is crucial to understand the motives behind these consumption patterns. In Mediterranean countries, adolescents are raised with alcohol traditions through their parents. For these youths, responsible drinking is part of their socialization and learning how to drink is considered a parental task. Data shows that this approach might contribute to the low amount of problematic drinkers in these countries. However, even in these Southern European countries, problematic drinking has become an issue, due to weakening family ties and international influences. On the other hand, for some countries such as Sweden or Iceland, a strict policy towards underage drinking seems to be successful in delaying the age of onset of juveniles.

Due to these strong cultural roots, a simple general European prevention strategy is not recommended and this has also been made very clear by the European Commission: “Specific measures adopted by Member States to reduce alcohol-related harm with a view to protecting public health are based on their particular cultural contexts” (Commission of the European Communities, 2006). However, awareness must be raised about the upcoming cultural changes as a consequence of globalization, whereby (problematic) alcohol consumption patterns have become more prevalent in the so called ‘wet’ cultures, where alcohol has been integrated into the daily conduct of social life and where excessive drinking was minimal up until now.

National governments often promote prevention strategies by raising awareness on the risks and dangers of using alcohol and drugs through campaigns and education. The experts in our study agreed that awareness is not only geared towards juveniles but also their parents, because they have a tendency to underestimate their children’s substance use (Trimbos, 2008). However, they could not agree on what that message should ideally be. Some experts argued that, because adolescence is a phase of experimentation, and that experimenting with drugs and alcohol is a part of that process for most teenagers, a prevention goal of total abstinence is unrealistic, and that responsible drinking should be the central focus of alcohol policy. The transmission of mixed messages should be avoided, for example: adults can drink alcohol, but adolescents cannot. Differential standards can be confusing, and it is very important that adolescents understand why certain rules only apply to them.

Therefore, a central task for the European Commission is to continue to develop a framework for alcohol prevention. This framework should clarify which goals should be pursued and why achieving them is so important. Due to the inherent differences of drinking cultures, it is probable that some methods of alcohol education (e.g. responsible drinking) will work better in some countries while in other cultures, a policy based on both responsible drinking and abstinence would be more suitable. In order to change drinking norms, beliefs and attitudes (this study makes clear how important this influence is) students themselves must be involved in prevention strategies by working interactively and by integrating their daily life experiences. Youngsters should understand why it is important not to drink (excessively). More attention should be paid to the positive reinforcement of ‘desired’ behaviours’ (for instance by giving rewards to students who abstain from drinking alcohol). ‘Positive’ messages (e.g. it can be cool and healthy to be a

non-alcohol drinker) could even have stronger and longer-lasting effects than negative messages (e.g. smoking can kill you).

The seminar experts and focus groups agreed that simply telling citizens how to behave often backfires. This is especially the case when it comes to lifestyle behaviours deeply rooted in cultural traditions (such as alcohol use). Therefore, governmental actions that are based on regulatory or legislative interventions have limited chances of success if these are not backed up by a social basis of public support (i.e. community readiness). To achieve this social basis of support, governments need to engage every player in the field, and cover all domains (family, peers, schools, neighbourhoods, etc.) and sectors (education, youth work, party sector, special youth care, civil society, consumer organizations and industry, politicians, etc.) simultaneously. It is important to inform all intermediaries and stakeholders about the problem at hand, and the relevance and expected results of the suggested policy. A holistic or integral approach to prevention is a key factor for success, and much attention should be paid to the local sector. This is the domain where the various sectorial activities can be brought together and tailored to the needs of the local setting. Most experts we spoke to during our study agreed that a combination of separate (evidence-based) interventions is most effective, but that these interventions should be structurally embedded in an overall 'integral' alcohol policy. This general alcohol policy is, however, not present in all European countries or the existing alcohol policy only focuses on a few issues (e.g. drinking and driving policy, alcohol advertisement, etc).

Prevention should also take into account the social inequalities that exist in health-related behaviours such as drinking alcohol. Although we need a universal message with regard to alcohol prevention in adolescence (i.e. the prevention of problematic and underage drinking), the way this message is transferred must be tailored to the needs of the specific groups of teenagers we are dealing with. Our study shows that young people exhibit different patterns of alcohol consumption. These variations cause youths to be more sensitive or less sensitive to certain measures or prevention strategies. Young people who have a pattern of high episodic drinking are less sensitive to measures such as increasing the legal age for buying alcohol, and the availability or affordability alcohol. Different kinds of youngsters require different types of messages, and in the current Communication of the European Commission on Alcohol Policy, attention is only paid to three types of vulnerable groups (young people, pregnant women, and drivers). However, our study indicates that a group of risky drinkers exist, who are not being addressed in the Communication.

The data shows that these vulnerable groups with risky use patterns are teenagers from disadvantaged socioeconomic groups, students in vocational tracks, sensation seekers, and youths with low self-esteem. These vulnerable social groups are difficult to reach with traditional prevention strategies, thus alternative prevention strategies are required. Again, what is important before implementing new strategies is to assess the specific needs and characteristics of our target social groups: Why do they drink? In what social settings are they raised? What are the characteristics of these groups? Experts stress the importance of hearing the voices of these social groups, to prevent top-down interventions from causing unintended side effects (e.g. stigmatization). Ideally, the development of prevention programs should be the result of an interaction of top-down and bottom-up processes whereby policymakers, researchers and practitioners work together, and data and knowledge play a central role.

What we need to know

Although the large scope of this study allowed us to study many important aspects, it was not possible to research absolutely everything. How young people develop- also in conjunction with alcohol consumption or other forms of risk behaviours- are complex interactions pertaining to personal and social interactions in various social contexts, and on multiple levels. In the understanding of biological processes, in which brain science, genetics, neurobiology and neuroscience play an enormous role, huge steps forward have taken place. These processes influence the development of cognitive abilities, emotions as well as behaviour, and this knowledge has been of great influence to the prevention sciences for children and youngsters (IOM, 2009). Our study focused on the influence of risk and protective factors on adolescent alcohol consumption in their environmental context. In the future this 'lower' level should also be taken into account. Another aspect partly overlooked was the co morbidity of problem behaviours (risk behaviours). Our study primary focused on alcohol and drug consumption, and delinquency, however, other problem behaviours (often strongly related to these) that may also have been significant to take into account were depression, anxieties and sex-related problem behaviours.

The risk and protective factors (social determinants) studied here were correlative and associative with alcohol use and other outcomes. However, the clear associations illustrated through our cross-sectional country analyses do not prove causation. Nonetheless, our selection of risk and protective factors are based on many experimental and longitudinal studies carried out over last decades in which these associations are consistently prominent. We have thus defined them as ‘approximations of causes’. While risk factors increase the probability of negative outcomes, protective factors increase the probability of pro-social behaviour: acting as a buffer against the impact of risk factors. Both can be found in the domains in which youngsters grow up in: their families, schools, friends and communities (Loeber et al., 2008). These risk and protective factors contribute to prevalence rates and are the best determinants we have at the moment in preventive science and practice. Most of the work on risk factors, protective factors and prevalence rates of alcohol use and other problem behaviours has been carried out within countries. We need research that confirms the hypothesis that the associations between the outcomes and modifiable risk and protective factors are consistent across countries when controlled for other variables. Cross-national research between a restricted number of countries is forthcoming (Jonkman et al., 2012; Oesterle et al., 2012; Jessor et al., 2004). Nonetheless, we need cross-national studies that entail a substantial number of countries to be able to study the associations more in depth, such as this one.

In order to study causal paths of outcomes and social determinants they must be analyzed from a longitudinal perspective. This could help us to identify in which periods life, youths are most sensitive to the influence of risk and protective factors, and also when these factors typically emerge. Longitudinal studies contain observations of identical research units - of the individual or groups of individuals over a longer period of time. Longitudinal studies can provide answers to questions concerning changes that cross-sectional studies cannot. Longitudinal studies also provide better accuracy whilst observing these changes, and they can be applied to various other fields. Longitudinal studies will help us answer research questions about systematic changes over time in individual behaviours, and about the occurrence and timing of life events, questions which we were not able to answer in this study. Moreover, the benefit of a longitudinal study is that researchers are able to detect developments or changes in the characteristics of the target population at both the group and the individual level and look at the influence of risk and protective factors over a longer period of time.

However, the existing state-of-the-art studies on causal paths of alcohol use in Europe are limited: most of the current knowledge is based on studies within the United States. Without a doubt, causes which drive individual and societal processes, developments, and changes in the educational and socioeconomic sector cannot be adequately studied without a valid and reliable database, based on results from carefully conducted longitudinal studies. Hence, it is necessary to develop a comparative longitudinal European study that includes information from administrative data sources, as well as self-reports of children from early childhood, school years, adolescence and adulthood, as well as changes in national policies through out their lives. Such a study can provide the basis for developing an enhanced and more integral understanding of the health and behaviours of people living in Europe.

In sum, there is substantial knowledge about the influence of risk and protective factors on behaviour of youths (proximal factors). However, a better understanding of the relationship between risk factors on the individual level and structural (social) indicators on country level was needed - which we attempted in this innovative study. More studies must be formulated which examine these associations within a broader setting and take this upstream perspective into serious consideration.

A plethora of social and policy indicators measuring the problem behaviours and wellbeing of youngsters emerged from the '60s onwards. Since then, most of the indicators can be defined as external conditions, which have been mapped at different geographic levels (countries, regions, communities), mainly in the US and Western Europe. Many indicators have been collated in statistical series produced by national statistics agencies (*Social Trends* in the UK, *Kinderen in Tel* in the Netherlands, the UNDP *Human Development Reports* and WHO *Alcohol Indicators*). In relation to children and adolescents, data has been compiled under the auspices of bodies such as UNICEF, whose annual *State of the World's Children* reports review basic indicators of child development (e.g. infant mortality, school enrolment, percentage immunisations).

Thus, social and policy indicators are studied, but the influence of social or structural indicators (e.g. poverty and socioeconomic status of the environments, policy factors and cultural factors) together with individual variables, are studied less systematically and internationally. Especially the influence of the broader social context on risk and protective factors has been paid too little of attention in prevention

science up until now. The public health burden of adolescents worldwide also underlines the need to act on a structural level as well (Lancet, 2012). Surveys between and within countries as presented here in this study may contribute to this knowledge. However, this is just a small step in light of what still needs to be done.

Various international studies have illustrated that population-wide reductions of alcohol use and other problem behaviours is possible through evidence-based prevention programs and policies (Elliott, 1997; Axford, 2012). Such programs affect whole populations by targeting relevant risk and protective factors and reduce burdens on public health systems. International, national and local governments have to take this knowledge seriously. The interest in evidence-based programs as what should be delivered to whom, when, where and how, (Axford, 2012) has increased. Scientifically proven effective programs for children and youngsters are slowly growing in several countries in various areas of development (health, behaviour, education, well-being, relationships). Some of them were specifically developed for the prevention of substance abuse or showed positive results on reducing youngster prevalence rates. However, when we looked at operative effective programs in Europe, and the current situation in many countries, we were disappointed. European researchers, politicians and practitioners must find a way to research programs and policies more systematically and utilize these programs on a broader scale. Societal improvement requires political will and research capacity to expand scientific evidence that can identify what works and what is counterproductive. Different parties must cooperate to increase evidence-based knowledge, which in turn must be communicated and utilized by other actors to reach relevant target populations. In order to increase efficacy, this work must also be carried out on different levels. However, the current situation in Europe does not lend to these aspirations.

Recently, different documents call on international, national and local leaders to promote the well-being and prevention of health problems among youths as a top priority in society. Furthermore, the importance of early childhood has recently been recognized as a key developmental period (Agrawal et al., 2010; Danese et al., 2007; Nomura et al., 2011; Turner et al., 2011; 1989). In regards to adolescence, recent reports have also underlined the importance of this life course phase as a foundation for subsequent development (Lancet, 2012). Child and youth development is a central phase of physical, mental, sexual and reproductive health in adulthood. Social investments in these domains promote to end the cycle of poverty, eliminate inequities and to secure a better future for children and young people (Unicef, 2011), also in terms of trans-generational processes. Investing in these domains is essentially an investment in country development (Worldbank, 2007). The European Union should expand the research agenda on this topic further in the years to come.

Policy recommendations

Recommendation 1: Empower young people by means of a life skills approach.

Adolescents need to acquire a variety of competences in order to handle their future personal and professional lives effectively. One of these required competences relates to a skill that enables youths to: manage emotiveness and interpersonal relationships, resist social pressures, and ultimately safeguards them from harmful or undesirable outcomes related to, for instance, having sex, drinking alcohol, or using drugs. Programmes which focus on empowering young people with these psychosocial skills are currently popular regarding prevention strategies. This research has shown that juveniles are vulnerable to negative life events especially when they have a low self-control. Therefore programs that stimulate social skills is should be promoted.

An example of such a *person*-related prevention programme is the life skills programme, 'Unplugged', which is currently operating in several European countries. This program is also one of the few that has undergone a scientific evaluation. Programs that place an emphasis on these psychosocial skills (e.g. self-efficacy, coping strategies, assertiveness, handling peer pressure, etc) encourage young people to behave consciously, responsibly and in a well-mannered way.

In helping youths cope with peer pressures, providing accurate and up-to-date information on alcohol and drugs, as well as the manner in which adolescent peers use them, is crucial. This is because adolescents tend to systematically overestimate alcohol and substance use of their peers (Reid, Manske, & Leatherdale, 2008). Since the only precondition for social influence to occur is the availability of information about the behaviour of others (even when this information is based on false beliefs) adjusting these misperceptions

through accurate information campaigns has the additional benefit of diminishing possible negative peer influences. However, European and national campaigns should also address the high levels of episodic or binge drinking among young people. Education should encourage teenagers and young adults to think about the choices they make about drinking, and particularly about the possible negative consequences of excessive alcohol consumption.

In any person-related prevention programme, it is important to involve the students themselves in their educational process by working interactively and by placing their particular social world in the foreground. By making students *actors* in prevention instead of passive recipients, and by focusing on *positive* messages (e.g. it can be cool and healthy to be a non-alcohol drinker) instead of negatives ones (e.g. drinking can kill you) investments in prevention programmes would have even stronger and longer-lasting effects.

The role of European, national and local governments:

- *Governments should create conditions that increase the availability and accessibility of programs on a local level, that empower adolescents by training life skills.*
- *Governments should organize campaigns and invest in education about alcohol consumption that provides information for adolescents so that young people may take greater personal responsibility for their behaviour.*
- *Governments should guarantee that young people are included in alcohol policymaking.*

Recommendation 2: Person-related prevention should be complemented by structural prevention.

Although empowering youths with psychosocial skills is defensible and even necessary from a prevention perspective, it does however have a disadvantage: it largely neglects the broader structural and cultural forces at play. In the AAA-Prevent project, we focused on risk factors that relate to the structural and cultural environment in which teenagers spent most of their time together (i.e. the family, the school, the neighbourhood). The analyses indicated that prevention can go one step further by also focusing on targeted forms of structural prevention. Moreover, while alcohol prevention strategies aimed at working on psycho-individual coping mechanisms are a valuable investment, we believe that the efficacy of these person-related preventions can be substantially increased if complimented with targeted forms of structural prevention. The latter would focus more on long-term measures that address the underlying causes of alcohol and substance use. Prevention should be focused on a broader spectrum of risk and protective factors that are of influence on juvenile alcohol use. As such, they have a much broader scope and have the potential to increase the durability of prevention considerably. Structural prevention, and prevention in general, is most effective at the local level because this is the level where the various sectorial activities can be brought together and tailored to the needs of the local setting.

While structural prevention has been widely adopted in the domain of regulation (e.g. drink-driving policy, controlling the availability and taxation of alcoholic beverages, consumer information, etc), this is not the case for the different structural and cultural environments students grow up in. Our analyses indicated, for instance, that different risk and protective factors exist in the family domain. Parents should be more aware of adolescents' lifestyles, especially the lifestyles of their own children. Our data showed that parental supervision and positive bonding aspects between parents and their offspring are important in protecting adolescents from (problematic) alcohol use. Therefore, not only should the participation of adolescents themselves in prevention activities be stimulated, but also the participation of the students' parents. The purpose of a parents' programme should be to increase the awareness of parents regarding different family risk and protective factors related to alcohol use in early adolescence. An authoritative parenting-style should be encouraged, characterized by high control and the positive encouragement of the child's feelings and needs. Such an approach requires a comforting and protecting attitude of parents, together with acceptance and even encouragement of the child's own independent choices. In this way, prevention should also encompass an emancipative component (Goris, Burssens, Melis, & Vettenburg, 2007).

The analyses in this report also showed that sometimes changes are needed in the structural conditions of domains other than the family (e.g. schools, neighbourhoods). For instance, given that adolescents spend so much time in school, investment in structural aspects of these school environments is of crucial

importance, especially given that these school experiences determine students' well-being. Our data showed that positive bonding, and a positive school climate has a positive effect on reducing alcohol consumption, while school disorganization has a negative effect. Thus it is important to create a better physical and psychosocial school environment for these students, by for example, developing and supporting a student council to increase student involvement and commitment, and by promoting positive contacts between students and school administration.

Other examples include: providing appropriate training and support for teachers in working pro-actively with these students, or better cooperation with other local agencies that work with youths. However, investments in structural characteristics of school environments are also crucial if these characteristics tend to (re)produce inequalities. For example, the analyses in this report showed that an educational practice such as tracking (or streaming) leads to gradients in adolescents' alcohol and drug use, to the disadvantage of the more vulnerable social groups. Therefore, postponement of the definitive choice of a particular track until upper secondary school might be preferred, or more attention should be paid to the question of whether health education is sufficiently tailored to the needs and specific learning styles of students in the more vocational tracks. This is especially relevant given that people from more disadvantaged socioeconomic backgrounds are not well reached with traditional prevention strategies (Bernaert, 2008).

However, another important component is the school's drug policy, which serves to set normative values and expectations for student behaviour as well as to document procedures for dealing with alcohol or drug-related incidents. Studies in Australia and the US (Evans-Whipp, Bond, Toumbourou, Catalano, 2007; Beyers, Evans-Whipp, Mathers, Toumbourou, Catalano, 2005) showed that schools' policies and enforcement procedures which reflected national policy approaches, when delivered effectively, were associated with reduced student alcohol and drug use at school.

We may conclude from this study that the influence of the neighborhood can play a crucial role in alcohol prevention strategies aimed at adolescents. Programs should especially focus on the decrease of neighborhood disorganization, by combating crime, drug dealing, fighting, graffiti and empty and abandoned buildings. In addition, programs could promote healthy development by targeting social attachment between neighbors, involvement in the neighborhood, and by focusing on the norms and values of the individual. Alcohol should not have exposure in any youth environments (education, sport, recreation, entertainment), warning labels should be used and marketing restrictions should apply when it comes to advertising to youths. The organization of Alcohol free parties should be more supported and stimulated by the government; especially school parties or activities must be alcohol free.

To conclude, in order to have longer-lasting effects, prevention needs to engage all actors in the field. This argument is also one of the principal motivations behind the EU Alcohol & Health Forum: to bring all relevant stakeholders together. Parents, schools and local communities are partners herein, but also civil society, consumer organizations, the alcohol industry, and the social and cultural sector. The message should be uniform: all voices in the same direction! However, a uniform message does not implicate that the way this message is delivered should be harmonized. As discussed earlier on, the success of a prevention program to a large degree depends on the way it is tailored to the needs of the setting at hand. Due to strong cultural influences, both at the national and local level, recommendations for preventive programmes and interventions are best negotiated at these corresponding levels.

The role of the European, national and local government:

- *Governments and organisations should create effective conditions for integrated prevention in relation to underage (problematic) drinking.*
- *Governments should advocate and ensure that all stakeholders within the different structural and cultural environments that juveniles grow up in (parents, teachers, youth workers) are involved with juvenile alcohol prevention strategies and programmes.*
- *Governments should create the right conditions that increases the availability and accessibility of programs on a local level, as well as educate parents about juvenile alcohol use and train their competencies in dealing with alcohol use by their own children.*

- *Alcohol prevention should be an integral part of the training and education of professionals who work with young people.*

Recommendation 3: Invest in evidence-based prevention programmes and policies and in the diffusion of implementation and knowledge on best practices.

A final conclusion is that the full potential of preventive actions is hampered by a lack of scientific evidence indicating whether these preventive actions really work. In contrast to interventions in more clinical settings (i.e. treatment and harm reduction), few evidence-based interventions exist in prevention. If an evaluation is conducted, it is most often the implementation of the intervention itself (i.e. process evaluation) that is evaluated. Whether the programme also resulted in demonstrable effects on the target outcomes (i.e. outcome evaluation) often remains an open question. Although it is true that the development of evidence-based interventions in prevention is challenged by more complicated methodological conditions (in conjunction with the complex etiology of alcohol use itself), researchers and policymakers should not be taken aback but should strive to tackle this complexity head on. Moreover, given that so little evidence-based prevention programmes exist in Europe, it should not come as a surprise that governments are not willing to invest in prevention. Perhaps, the European Commission can alleviate this problem by, for example, continuing to subsidize research projects focused on the development of evidence-based interventions. This particular project was a first step in this direction, and made an inventory of best practices in the different European countries that can serve as examples for other prevention workers. Ultimately, however, these programmes should undergo a rigorous test of whether the assumed effects can be scientifically validated. A final and concluding remark in this regard is that more investments need to be made in the construction of knowledge centers specialized in evidence-based prevention. To this day, an absence of a culture of evaluation exists in most European countries. Even in countries with a solid track record in other areas of scientific research, only a few institutions are specialized in evaluating prevention programmes.

Finally, knowledge related to best practices or evidence-based prevention programmes should be made available to a broader audience, and if possible, within an existing European framework. Prevention workers and practitioners were very positive about the idea of a European database of effective prevention programmes. Such a database allows researchers and policymakers to share knowledge concerning effective prevention programmes, to identify other relevant programmes, possibilities of implementation, and to have a better view on what works for which groups and under which conditions. This project partially fulfilled this aim by providing an overview, to this date, of best practices of alcohol prevention among youths. However, in order to reach its maximum effect, such databases need to be updated on a regular basis, so that further progress and development in the field of alcohol prevention are captured and disseminated between policymakers, prevention workers, practitioners and other stakeholders.

The role of the European, national and local government:

- *There is a need for knowledge valorisation in the areas of juvenile alcohol patterns, alcohol consumption determinants, and the developmental process of juveniles.*
- *Due to a lack of evidence in terms of evaluating the effectiveness of programs, there is a need for increasing scientific research in the area of alcohol prevention methods.*
- *There is a need for a national coordinating databank on effective policies and programs founded on practice and evidence-based research.*
- *Governments should create the right conditions for the implementation of integrated programs and prevention that tackle risky alcohol use among juveniles.*

It is clear that drinking among young people is a community wide problem that demands a community wide response. Although youth development is a complex process of interactions between biological, personal and social interactions, we found that (risky) alcohol use in early adolescence is strongly influenced by social contexts such as family, school, peer group and neighbourhood. Most alcohol prevention strategies aimed at working on psycho-individual coping mechanisms are a valuable investment, and we believe that individual prevention can only be efficient if complimented with long-term measures which address the underlying causes of risky alcohol and substance use in these different domains.

Integrated prevention, more generally, is most effective at the local level because this is the level where the various sectorial activities can be brought together and tailored to the needs of the local setting and culture. Due to strong cultural influences, both at the national and local level, recommendations for preventive programmes and interventions are best negotiated at these corresponding levels. Proposing individual strategies which prevent alcohol-related harms in Europe's member states, is therefore not recommended and should be formulated by the countries themselves. The European Union correctly recognizes the different cultural habits related to alcohol consumption in the various member states making it rather dangerous to impose a harmonized legislation or prevention strategy. However, this does not mean that the European commission should not have an important role in formulating or influencing policies that prevent underage drinking. For example, the European commission could create the structural conditions to make these strategies possible (budget, research, capacity building local policies). The European parliament can take on an advocacy role within Europe to ensure that risky alcohol use among juveniles is prioritized on the political agenda.

From the meetings with the experts from 25 European member states, it was clear that there is a large knowledge gap between the countries involved. Thus knowledge valorisation is perhaps an issue that the European commission can place and prioritize on their agenda. The results of this study, however, can be used, further inform and educate other member states on certain topics that require attention, preferably by further extending the Communication on the European Union's strategy to support Member States in reducing alcohol related harm (Commission of the European Communities, 2006). For instance, in the Communication, no attention is paid to the origins of these alcohol use patterns (both at the individual and country level), and our study also indicated that there are other (more specific) vulnerable groups (i.e. other than pregnant women, young people, and car drivers: the three main risk groups as defined in the Communication). Also, understanding the social and psycho-individual antecedents of alcohol use, and especially how both the prevalence rates of these antecedents as well as their relationships with alcohol use vary between the European countries, can be of high value for Europe and links back to one of the European Commission's priority themes, i.e. to develop and maintain a common evidence base at the EU level.

Adolescent alcohol and drug use are worrisome societal problems within Europe and the implementation and adaptation of risk- and protective focused preventive efforts on an international level, and the use of sound programmes is an effective way to address this. With this report, we were able to map out the status quo of the situation in several European countries, present the lessons we learned from this comparative study, and illustrate how to utilize the information we obtained by formulating operational recommendations. Hopefully this international study will have a positive impact on European, national and local policies, programs and practices.

Hopefully the recommendations mentioned just above will have a positive impact on European, national and local policies, programmes and practices.

Potential Impact

We carried out several activities during the project to enlarge the impact of the relevant knowledge this scientific research project has generated concerning current environmental strategies for the prevention of adolescent substance abuse (alcohol, and illicit drugs) in Europe.

First, all participating partners have published, or are still in the process of publishing, peer-reviewed articles. The participating countries have published/submitted their papers within their own countries but have also written scientific articles in renowned international magazines. Some of these articles have been accepted and published, but the majority of the international papers are still under review. The research team has held presentations during seminars and made policy briefs for policymakers to ensure that the results will be disseminated in all countries. Furthermore, we held presentations at various conferences across Europe (among them SPR-EU 2011 in Lisbon; SPR-EU 2012 in Krakow; EU Commission Brussels, 2011; DHS Hamburg, 2011; ESC Liege, 2010; ESC, Vilnius 2011; ESC Bilbao 2012; MCS, Prague, 2011; EU, EU Brussels, 2013) and in the United States (SPR, Washington 2011; ASC San Francisco, 2010).

Second, in order to exchange experiences and knowledge between professionals and policymakers and scientists across policy levels and borders in Europe, we created the website www.aaaprevent.eu. The structure of this website includes a section which can only be accessed by the consortium partners and a public section which contains all kinds of information about the project: its objectives, work plan and involved partners. In the public section we published various articles as well as the study results. For instance, we published 25 papers (country reports) about adolescent substance use per country and their national policies and culture towards the consumption of alcohol and (soft and hard) drugs. We also created country profiles for all 25 countries with information about the drinking patterns and behaviours of young people in each country. We also present data per country level on context-specific influences on the drinking behaviour of juveniles for the following domains: family, school, peers and leisure, neighbourhood, and self-control. These results are also available per country. We also carried out analyses on the relationship between substance use and delinquent behaviour. These national profiles enable policymakers to realize policies that are based on actual data about young people in their own cities and countries. This way it is possible to develop evidence-based policies even further.

Furthermore, we also organized several regional seminars to not only reach out to the consortium countries but also the 19 other countries in Europe which were included in the ISRD-2 (International Self Reported Delinquency) study. The large dataset generated by this study provided us with the opportunity to include the other countries. We expect that these participating country partners will promote the results of the project within their own countries.

Every partner of the research team organized two regional conferences, and they were responsible for the organization of a two-day meeting, which they chaired. There were five regional conferences in 2011 and in 2012 attended by researchers, practitioners, and policymakers. All 25 European countries were represented at these conferences. For the first regional conference, national experts were asked to provide information about: adult substance use, youth substance use, the national policy towards alcohol and drugs (for example, zero tolerance, supply reduction, demand reduction and/or harm reduction), the availability of alcohol and drugs, and the cultural attitude towards alcohol and drug use. These national papers were presented in five regional expert meetings where five participating countries would discuss the outcomes of our study and their national reports. In total, 72 people attended this first regional conference.

Another aim of the AAA-Prevent project was to identify different potential local effective strategies for the prevention of adolescent alcohol abuse in different European countries. The development of effective preventive and early interventions for youth alcohol use is important for a number of reasons, including: the high clinical demand for such programs; the possibility of influencing the typically negative course of early-onset drinking (Grant & Dawson 1997; Hawkins et al. 1997), and; the possibility of preventing the early onset of associated psychological problems such as depression (Newcomb & Bentler 1989). In order to gain more insight into the available prevention programs and interventions in the participating countries, we again subcontracted experts to write a national report. This time, the reports focused on the programs and interventions which target juvenile alcohol and drug consumption in their countries.

The twenty-five national experts were asked to draw up an inventory of preventive programs in their country on the meso (school and neighbourhood) and micro (family and individual) level aimed at juvenile alcohol use in European countries and to describe two 'best practices' in more detail. This formed the basis for the development of our database of effective interventions in the field of prevention of alcohol use of adolescents on the website of our project.

During the regional seminars (Spring 2012), the findings were discussed, with particular attention to similarities and differences between the countries. The same people (researchers, politicians, and practitioners) who were present at the first meeting were also invited to the second regional seminar. In total 72 experts (researchers, practitioners and politicians) attended the second regional conference. The objective of the meeting was to identify and select programs/interventions, which had been evaluated and proven of effectiveness, with the intent of enabling politicians and policymakers to discern which interventions are effective or promising in the field of prevention. The selected effective programs have been published on the AAA-Prevent website (www.aaprevent.eu/strategies).

The final goal of the AAA-Prevent project was to create policy recommendations which would strengthen the prevention of alcohol and drug use of (vulnerable) young people on different levels of policymaking (local, national, European). The conference in Ghent (September 20th, 21st), which included all the participants from the first and second regional expert meetings, provided substantial input towards reaching this final aim. The conference counted 34 participants from 17 different countries. The purpose of the Ghent conference was to formulate a set of policy recommendations that could serve as guidelines for future preventive actions against alcohol use among minors. In focus groups, participants were encouraged to reflect on the findings from the AAA-Prevent study and to formulate policy recommendations, based on a series of statements. Three sources of data were used for the following statements:

1. The results from the analyses of the ISRD-2 dataset and a cross-national dataset on adolescent alcohol use and risk factors on different levels and domains.
2. Findings from the regional expert meetings on national policies, and;
3. The findings from the regional expert meetings on prevention programs and the database that was constructed based on this inventory.

The three focus group sessions on day 1 (session 1) focused on the different levels of prevention, taking into account some of the findings from the multilevel analyses at the country-level. This session also discussed which approaches were more effective: an integral national approach, a combination of separate interventions or another approach.

The next session of focus groups (session 2) on day 2 focused on how to handle different alcohol cultures. Given the strong differences of alcohol cultures in Europe, the session focused on which strategies could best be employed to change these alcohol cultures, and influence the different groups of users within these countries. The session resulted in policy recommendations in terms of how to pursue the prevention goals as defined by national and European governments, given the strong impact of these alcohol cultures.

The final sessions on day 2 comprised of three different focus group sessions that tackled more specific topics. The first final session focused on the involvement parents and adolescents as actors in prevention strategies. The second topic addressed prevention strategies targeting the individual's skills (e.g. self-control), and the last focus group focused on how structural characteristics of the schools within countries could generate inequalities in drinking patterns. Again, all three sessions were directed at formulating policy recommendations for future prevention programs.

In a plenary session on the second day, all moderators presented the main findings of their focus groups. The reports on the focus group are published on the AAA-Prevent website.

The final congress was organized on Monday 25th February, 2013 at the Eurocare secretariat in Brussels. The aim of this conference was to disseminate the findings generated by this large-scale research study to a broad European audience of researchers, practitioners and policymakers. We presented the results with special attention to policy implications for alcohol prevention in Europe. Over 80 people (policymakers, practitioners, the alcohol industry) attended the conference.

Best practices: Adolescent alcohol use prevention programs

When considering the potential impact of this project even further, we were able to develop a list of prevention strategies according to type and grade them according to theoretical background, implementation and outcome. Based on this we were also able to develop a matrix illustrating which programs in which countries exhibit best practice strategies.

Table 1 *Matrix of good practices suggested to publish in a AAA-Prevent website.*

Domain	Program	Risk factor/s targeted*	Overall score	Country
Individual	Skoll (Self-control training)	Individual, peers	3	Germany
	Supra-f	Individual, peers	3	Switzerland
Family	Strengthening Families Program (SFP)	Individual, family, peers	2	Ireland
				Slovenia
	Triple P	family	3	The Netherlands
	Örebro preventionsprogram (ÖPP)	Family	3	Norway
				Sweden
Dedalo	Family	2	Spain	
School	Unplugged	Individual, family, peers	3	Belgium
				Italy
				Lithuania
				Slovenia
	To prevent is to live	Individual, peers, school	2	Spain
	Drug-Reason-Impact	Individual, peers, school	3	Czech R.
	Life Skills and Knowledge	Individual, school, peers	2	Hungary
	PDD-FM	Individual, peers, school, family	3	Poland
	Kurzintervention	Individual, peers	3	Switzerland
	I am OK when I say NO WAY	Individual, peers	3	Denmark
PAS	Individual, family, school	3	The Netherlands	
Social Skills Training	Individual, family, peers	2	Estonia	
Community	Prague 6 District	Individual, peers, school, family	3	Czech R.
	HaLT	Individual, family, peers, neighbourhood	3	Germany
	Don't start too early	Individual, family, peers	2	Belgium
	Local Alcohol Policy (PAKKA)	Peers,	3	Finland

		neighbourhood		
	Responsible alcohol handling	Peers, neighbourhood	3	Norway
	STADs Responsible Beverage Service	Peers, neighbourhood	3	Sweden
Multi-component	PES'P Andar (Feet for Walking)	Individual, peers	2	Portugal
	Searching for Family Treasure	Individual, family	2	
	ODLOT	Individual, family, peers, neighbourhood	2	Poland
	Drug Policy at School	Individual, school, peers	3	Belgium
	A cool world	individual	2	
	ADSUME and EI	individual	2	Finland
	Snowball	Individual, peers	2	Lithuania

*Note: Individual: self-control and attitudes; family: family bonding, parents supervision, family affluence, life events; peers: lifestyle, friends and delinquency; school: disorganization, truancy, aspiration, school climate; neighbourhood: disorganization, bonding, integration.

The impact of such a classification table is threefold:

1. It provides policymakers, actors and other parties with information regarding the efficacy of a particular program.
2. It may serve as a baseline for future adolescent alcohol reduction incentives on local, national and European level.
3. It facilitates well-scored programs to continue their work and encourages less well scored programs to improve on their strategies.

For this project we also developed the website: www.aaprevent.eu. This table can be found on this website including all other relevant information on the project.

To ensure the continuity of the website now the project will end, we have an agreement with Eurocare the European Alcohol Policy Alliance, that they will take care of the website at the end of 2013, and they will keep the website and the list of effective programs up/dated.

Furthermore we wrote a final report about the findings of this project. This will be available as a pdf-file on the website. In the coming period we will focus on the distribution of this report, by means of a press release, and international and national articles based on the results of the report. Furthermore, we will contribute the results of the report to national and international conferences across Europe and beyond.

2 Use and dissemination of foreground

The three year AAA-Prevent study resulted in a total of 12 articles and publications, published in renowned scientific journals. Two have recently been submitted and another two are still in press. The final publication of the AAA-Prevent project, *Alcohol use Among Adolescents in Europe. Environmental Research and Preventive Actions* was recently published in the Netherlands. In Table A2, we present our extensive list of dissemination activities. The AAA-Prevent project held over 27 presentations, 5 conferences and 9 seminars across Europe and in the United States, as well as the production of posters, policy briefs and the website www.aaprevent.eu.

TABLE A1: LIST OF SCIENTIFIC (PEER REVIEWED) PUBLICATIONS										
NO.	Title	Main author	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided to this publication?
1	Alcohol use Among Adolescents in Europe. Environmental Research and Preventive Actions	Steketee, M., Jonkman, H. Berten, H., Vettenburg, N. (eds.)		Published	Verwey-Jonker Instituut	Utrecht	2013	312 pages	Pdf available via www.aaaprevent.eu	Yes
2	Self-reported substance use patterns among adolescents in 21 European countries: a latent class analysis	Kristin Göbel, Herbert Scheithauer, Astrid-Britta Bräker, Harrie Jonkman, Renate Soellner and AAA-Prevent Research Group	Submitted to Journal of Studies on Alcohol and Drugs	Submitted						No
3	Alcohol use of youngsters from 25 European countries	Soellner, R., Göbel, K., Scheithauer, H. & Bräker, A.-B.	Journal of Public Health	In press						No
4	Uso di alcol, delinquenza e vittimizzazione tra i giovani in Europa: analisi preliminare dei risultati di una ricerca multicentrica internazionale (ISR2)	Gabriele Rocca, Alfredo Verde, Hans M.A. Schadee, Uberto Gatti	Italian Journal of Criminology	In press	Pensamultimedia	Lecce	2013			no
5	Effects of delinquency on alcohol use among juveniles in Europe: results from the ISR2 study	Gatti, U., Soellner, R., Schadee, H. M., Verde, A. & G. Rocca	European Journal on Criminal Policy and research	Volume 19, Issue 2	Springer	Berlin	2013	pp. 153-170	http://link.springer.com/article/10.1007/s10610-013-9202-x#	No

6	The effect of family factors on intense alcohol use among European adolescents: A multilevel analysis.	Kask, K., Markina, A., & Podana, Z.	Psychiatry Journal	Volume 2013	Hindawi	-	2013	12 pages	http://dx.doi.org/10.1155/2013/250215 http://www.hindawi.com/journals/psyj/2013/250215/	Yes
7	The effects of family factors on alcohol consumption in three East-European countries	Markina, A. & Kask, K.	Journal of Contemporary Criminal Justice	Volume 29, Issue 1	Sage	-	January 20 th 2013	pp. 53-69	Doi: 10.1177/1043986212470886 http://ccj.sagepub.com/content/29/1/53	No
8	Does Cultural Context Affect the Association Between Self-Control and Problematic Alcohol Use Among Juveniles? A Multilevel Analysis of 25 European Countries	Zuzana Podaná, Jiří Buriánek	Journal of Contemporary Criminal Justice	29(1)			January 20 th 2013	pp. 70-87	Doi: 10.1177/1043986212471181	No
9	Komparatívni analýza konzumácie alkoholu u mládeže v Európe	Zuzana Podaná	Sociálna patológia optikou sociologickeho skúmania		Stimul	Bratislava, Slovak Republic	2013	pp. 293-305		Yes
10	Groups of youth alcohol users in groups of countries; a comparative study of underage problem drinking and risk factors in 25 European countries.	Jonkman, H., Steketee, M., & Berten, H. and others		Submitted			2013			
11	Alcohol and cannabis use among adolescents in Flemish secondary schools in Brussels: The effects of type of education.	Berten, H., Cardoen, D., Brondeel, R., & Vettenburg, N.	<i>BMC Public Health</i> ,	Volume 12			20 March 2012	pp. 215	Doi: 10.1186/1471-2458-12-215	Yes
12	Žízničce na českých školách ne/najdeš... (Konzum alkoholu v Európe podle	Jiří Buriánek	Kdo slyší hlas volajícího na poušti		Masarykova česká sociologická společnost	Praha, the Czech Republic	2010	pp. 57-64		Yes

ISRD2)									
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TABEL A2: LIST OF DISSEMINATION ACTIVITIES								
NO.	Type of activities ¹	Main leader	Title	Date/Period	Place	Type of audience ²	Size of audience	Countries addressed
1	Seminar	University of Tartu Estonia	<i>AAA prevent results dissemination</i>	22-23 March 2011	Tallinn, Estonia	Practitioners, politicians, researchers	15	5
2	Seminar	Charles University, Czech Republic	<i>AAA prevent results dissemination</i>	10 -11 March 2011 Prague	Prague	Practitioners, politicians, researchers	15	5
3	Regional seminar	University of Gent Belgium team	<i>AAA prevent results dissemination</i>	7-8 April 2011	Gent	Practitioners, politicians, researchers	15	5
4	Regional seminar	German team	<i>AAA prevent results dissemination</i>	23-24 March 2011	Berlin	Practitioners, politicians, researchers	11	5
5	Regional seminar	University of Genoa, Italy	<i>AAA prevent results dissemination</i>	17-18 March 2011	Genoa	Practitioners, politicians, researchers	16	5
6	Regional seminar	University of Tartu, Estonia	<i>AAA prevent results dissemination</i>	14-15 February 2012	Tallinn, Estonia	Practitioners, politicians, researchers	10	5
7	Regional seminar	Charles University Czech Republic	<i>AAA prevent results dissemination</i>	1-2 March 2012	Prague	Practitioners, politicians, researchers	18	5
8	Regional seminar	University of Gent Belgium	<i>AAA prevent results dissemination</i>	8-9 March 2012	Gent	Practitioners, politicians, researchers	14	5

¹ A drop down list allows choosing the dissemination activity: publications, conferences, workshops, web, press releases, flyers, articles published in the popular press, videos, media briefings, presentations, exhibitions, thesis, interviews, films, TV clips, posters, Other.

² A drop down list allows choosing the type of public: Scientific Community (higher education, Research), Industry, Civil Society, Policy makers, Medias, Other ('multiple choices' is possible).

9	Regional seminar	German team	<i>AAA prevent results dissemination</i>	6-7 February 2012	Berlin	Practitioners, politicians, researchers	14	5
10	Regional conference	University of Genoa, Italy	<i>AAA prevent results dissemination</i>	8-9 March 2012	Genoa	Practitioners, politicians, researchers	16	5
11	Conference	University of Gent, Belgium	<i>AAA prevent results dissemination</i>	21-23 August 2013	Gent	Practitioners, politicians, researchers	47	25
12	Final conference	Verwey-Jonker Institute M. Steketee	<i>Effective Environmental Strategies for the Prevention of Alcohol Abuse among Adolescents in Europe</i>	5 March 2013	Brussels	Policymakers and practitioners	70	More than 25 countries
13	Conference presentation	German team Kongress der Deutschen Gesellschaft für Psychologie (DGPs) zum Thema Faszination Forschung	<i>Substanzkonsummuster und individuelle sowie umweltbezogene Risikofaktoren Jugendlicher in Europa.</i>	23-27 September 2012	Bielefeld	Scientific community		1
14	Conference presentation	German team Kongress der Deutschen Gesellschaft für Psychologie (DGPs) zum Thema Faszination Forschung	<i>Problematischer Alkoholkonsum in Europa - Zur Operationalisierung eines ungenauen Begriffs</i>	23-27 September 2012	University of Bielefeld	Scientific community		1
15	Conference	German team	<i>Alkoholkonsummustern Jugendlicher in 25</i>	23-27 September	University of	Scientific		1

	presentation	Kongress der Deutschen Gesellschaft für Psychologie (DGPs) zum Thema Faszination Forschung	<i>europäischen Ländern - Clusteranalyse oder Latent-Class-Analyse?</i>	2012	Bielefeld			
16	Conference presentation	Bräker, A., Göbel, K., Scheithauer, H. & Soellner, R.	<i>Alkoholkonsummuster Jugendlicher in 25 europäischen Ländern - Clusteranalyse oder Latent-Class-Analyse?</i>	September 23rd - 27th, 2012	University of Bielefeld	Scientific community	3	1
17	Workshop conference	Verwey-Jonker Instituut, the Netherlands	<i>Alcohol in Europe among juveniles, and the influence of risk factors</i>	12-15 September 2012	Bilbao, Spain	Scientific community		25
18	Presentation	Charles University, Czech Republic Zuzana Podaná, Jiří Buriánek	<i>Does cultural context affect the association between self-control and juvenile alcohol consumption? A multilevel analysis</i>	12-15 September 2012	Bilbao, Spain	Scientific community		25
19	Congress presentation	University of Genoa, Italy	<i>Relationship between delinquency and alcohol use among juveniles in 25 European countries</i>	12-14 September 2012	Bilbao	Scientific community (European society of Criminology)	100	25
20	Conference presentation	University of Tartu, Estonia	<i>The effect of family factors on adolescents' alcohol use in three East-European countries</i>	12.-15 September 2012	Bilbao, Spain	Scientific community	20	25
21	Congress presentation	University of Genoa, Italy	<i>Alcohol use, delinquency and victimisation among</i>	3-6 March 2012	Prague	Scientific community (European	100	25

			<i>young people in Europe: results of an international multicentre study (ISRD-2)</i>			Congress of Psychiatry)		
22	Conference presentation	German team Fachkonferenz der Deutschen Hauptstelle für Suchtfragen (DHS), Suchthilfe und Suchtpolitik International - Was haben wir von Europa und Europa von uns?	<i>Alcohol Abuse among Adolescents in Europe.</i>	14-16 November 2011	Congress Center Hamburg (CCH)	Scientific Comm., Practitioners & others		5
23	Conference	University of Hildesheim, Germany Soellner, R.	<i>AAA-prevent - Alcohol Abuse among Adolescents in Europe. Effective Environmental Strategies for Prevention.</i>	November 16th, 2011	Symposium of the German Center for Addiction Research (DHS e.V.) about international drug policy in Europe, Congress Center Hamburg	Scientific community, policy maker, others		1
24	Congress presentation	University of Genoa	<i>Uso di alcol, delinquenza e vittimizzazione tra i giovani in Europa: risultati da una ricerca multicentrica internazionale (ISRD-2) e prospettive preventive</i>	6-8 October 2011	Como	Scientific community (Italian society of Criminology)	600	1

25	Congress presentation	University of Genoa	<i>Effects of delinquency on alcohol use among juveniles in Europe: results from the ISRD-2 study</i>	21-24 September 2011	Vilnius	Scientific community (European society of Criminology)	100	25
26	Presentation	Charles University, Czech Republic Zuzana Podaná, Jiří Buriánek	<i>Juvenile alcohol use and self-control: Comparison across Europe</i>	17-20 November 2010	San Francisco, U.S.	Scientific community		
27	Presentation	Charles University, Czech Republic Jiří Buriánek, Zuzana Podaná	<i>Alcohol abuse, self-control and juvenile delinquency</i>	8 -11 September 2010	Liege, Belgium	Scientific community		25
28	Presentation	Charles University, Czech Republic Jana Rošlapilová	<i>Zahraniční výzkumy týkající se užívání alkoholu mezi populací</i>	14-16 April 2010	Vranov nad Dyjí, Czech Republic	Scientific community		1
29	Presentation	Charles University, Czech Republic Jiří Buriánek	<i>Žízničce na českých školách ne/najdeš... (Konzum alkoholu v Evropě podle ISRD2)</i>	14-16 April 2010	Vranov nad Dyjí, Czech Republic	Scientific community		1
30	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketeer	<i>Substance use of young people and the relation with criminal behaviour</i>	8-11 September 2010	San Francisco	Prevention en criminal researchers	30	More than 30
31	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketeer	<i>Risk and protective factor for adolescents substance use in the USA and the Netherlands</i>	27-5-2009	Washington	Prevention research	60	More than 30 countries

32	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketee	<i>Prevention of alcohol use among youngsters in Europe</i>	8-11 September 2010	Liege	Scientific community, policymakers		15
33	Conference presentation	Verwey-Jonker Institute, the Netherlands H. Jonkman	<i>Multilevel analyses of alcohol use</i>	8-11 September 2010	Liege	Scientific community, policymakers		25
34	Conference presentation	Verwey-Jonker Institute M. Steketee	<i>Alcohol use in Europe and beyond</i>	4 June 2010	Denver	Scientific community, policymakers		20
35	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketee	<i>The influence of neighbourhood on alcohol use of juveniles</i>	31 May- 3 June 2011	Washington	Scientific community, policymakers		20
36	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketee	<i>The influence of lifestyle of juveniles on their alcohol use</i>	16-19 November 2011	Washington	Scientific community, policymakers		20
37	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketee	<i>Environmental prevention of alcohol use among juveniles</i>	8-9 December 2011	Lisbon	Scientific community, policymakers	150	30
38	Conference presentation	Verwey-Jonker Institute, the Netherlands M. Steketee	<i>Immigration and delinquency, victimization and substance use in international perspective</i>	21-24 September 2011	Vilnius	Scientific community, policymakers	60	30
39	Conference presentation	Verwey-Jonker Institute, the	<i>Classes of alcohol use of countries and</i>	8-9 December 2011	Lisbon	Scientific community,	35	30

		Netherlands H. Jonkman	<i>individuals</i>			polymakers		
40	Conference presentation	Verwey-Jonker Institute, the Netherlands Steketee/ Jonkman	<i>Alcohol use and effective programs</i>	6-7 December 2012	Krakow	Scientific community, policymakers	40	30
41	Web	Verwey-Jonker Instituut, the Netherlands	<i>AAA-Prevent</i>	October 2010	NA	Scientific community, Policymakers, civil society		
42	Poster	Verwey-Jonker Instituut, the Netherlands	<i>Effective environmental strategies for the prevention of alcohol use in Europe</i>	October 2010	Online	Scientific community, Policymakers, civil society	-	-
43	Poster	Verwey-Jonker Instituut, the Netherlands	<i>Effective environmental strategies for the prevention of alcohol use in Europe: Objectives</i>	October 2013	Online	Scientific community, Policymakers, civil society	-	-
44	Policy brief	Verwey-Jonker Insituut, the Netherlands	<i>Effective environmental strategies for the prevention of alcohol use in Europe</i>	October 2011	Online	Policymakers	-	-

3 Report on societal implications

A General Information *(completed automatically when Grant Agreement number is entered.)*

Grant Agreement Number:

Title of Project:

Name and Title of Coordinator:

B Ethics

1. Did your project undergo an Ethics Review (and/or Screening)? No

- If Yes: have you described the progress of compliance with the relevant Ethics Review/Screening Requirements in the frame of the periodic/final project reports?

Special Reminder: the progress of compliance with the Ethics Review/Screening Requirements should be described in the Period/Final Project Reports under the Section 3.2.2 'Work Progress and Achievements'

2. Please indicate whether your project involved any of the following issues (tick box) :

RESEARCH ON HUMANS

• Did the project involve children?	✓
• Did the project involve patients?	
• Did the project involve persons not able to give consent?	
• Did the project involve adult healthy volunteers?	
• Did the project involve Human genetic material?	
• Did the project involve Human biological samples?	
• Did the project involve Human data collection?	

RESEARCH ON HUMAN EMBRYO/FOETUS

• Did the project involve Human Embryos?	
• Did the project involve Human Foetal Tissue / Cells?	
• Did the project involve Human Embryonic Stem Cells (hESCs)?	
• Did the project on human Embryonic Stem Cells involve cells in culture?	
• Did the project on human Embryonic Stem Cells involve the derivation of cells from Embryos?	

PRIVACY

• Did the project involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?	✓
• Did the project involve tracking the location or observation of people?	

RESEARCH ON ANIMALS

• Did the project involve research on animals?	
• Were those animals transgenic small laboratory animals?	
• Were those animals transgenic farm animals?	
• Were those animals cloned farm animals?	
• Were those animals non-human primates?	

RESEARCH INVOLVING DEVELOPING COUNTRIES

• Did the project involve the use of local resources (genetic, animal, plant etc)?	
• Was the project of benefit to local community (capacity building, access to healthcare, education etc)?	
DUAL USE	
• Research having direct military use	No
• Research having the potential for terrorist abuse	No

C Workforce Statistics

3. Workforce statistics for the project: Please indicate in the table below the number of people who worked on the project (on a headcount basis).

Type of Position	Number of Women	Number of Men
Scientific Coordinator	7	3
Work package leaders	8	2
Experienced researchers (i.e. PhD holders)	10	8
PhD Students		
Other		

4. How many additional researchers (in companies and universities) were recruited specifically for this project?	5
Of which, indicate the number of men:	2

D Gender Aspects		
5. Did you carry out specific Gender Equality Actions under the project?		Yes
6. Which of the following actions did you carry out and how effective were they?		
	Not at all effective	Very effectiv e
<input type="checkbox"/> Design and implement an equal opportunity policy	○ ○ ○ ○ ○	
<input type="checkbox"/> Set targets to achieve a gender balance in the workforce	○ ○ ○ ○ ○	
<input checked="" type="checkbox"/> Organise conferences and workshops on gender	○ ○ ○ x ○	
<input type="checkbox"/> Actions to improve work-life balance	○ ○ ○ ○ ○	
<input checked="" type="checkbox"/> Other: <input type="text" value="We created a study design where there was equal amount of boys and girls."/>		
7. Was there a gender dimension associated with the research content - i.e. wherever people were the focus of the research as, for example, consumers, users, patients or in trials, was the issue of gender considered and addressed?		
<input checked="" type="checkbox"/> Yes- please specify	<input type="text" value="We looked at gender differences of the alcohol consumption and patterns."/>	
<input type="checkbox"/> No		
E Synergies with Science Education		
8. Did your project involve working with students and/or school pupils (e.g. open days, participation in science festivals and events, prizes/competitions or joint projects)?		
<input type="checkbox"/> Yes- please specify		
<input checked="" type="checkbox"/> No		
9. Did the project generate any science education material (e.g. kits, websites, explanatory booklets, DVDs)?		
<input checked="" type="checkbox"/> Yes- please specify	<input type="text" value="www.aaaprevent.eu"/>	
<input type="checkbox"/> No		
F Interdisciplinarity		
10. Which disciplines (see list below) are involved in your project?		
<input checked="" type="checkbox"/> Main discipline ³ : 3.3, 5.1, 5.4		
<input checked="" type="checkbox"/> Associated discipline ³ : 5.2	<input checked="" type="checkbox"/>	Associated discipline ³ :5.3
G Engaging with Civil society and policy makers		
11a Did your project engage with societal actors beyond the research community? (if 'No', go to Question 14)	<input checked="" type="checkbox"/> ○	Yes No
11b If yes, did you engage with citizens (citizens' panels / juries) or organised civil society (NGOs, patients' groups etc.)?		
<input type="checkbox"/> No		
<input type="checkbox"/> Yes- in determining what research should be performed		

³ Insert number from list below (Frascati Manual).

<input checked="" type="checkbox"/> Yes - in implementing the research <input checked="" type="checkbox"/> Yes, in communicating /disseminating / using the results of the project			
11c In doing so, did your project involve actors whose role is mainly to organise the dialogue with citizens and organised civil society (e.g. professional mediator; communication company, science museums)?		<input type="radio"/> <input checked="" type="checkbox"/>	Yes No
12. Did you engage with government / public bodies or policy makers (including international organisations)			
<input type="radio"/> No <input type="radio"/> Yes- in framing the research agenda <input checked="" type="checkbox"/> Yes - in implementing the research agenda <input checked="" type="checkbox"/> Yes, in communicating /disseminating / using the results of the project			
13a Will the project generate outputs (expertise or scientific advice) which could be used by policy makers?			
<input checked="" type="checkbox"/> Yes - as a primary objective (please indicate areas below- multiple answers possible) <input checked="" type="checkbox"/> Yes - as a secondary objective (please indicate areas below - multiple answer possible) <input type="radio"/> No			
13b If Yes, in which fields?			
Agriculture Audiovisual and Media Budget Competition Consumers Culture Customs Development Economic and Monetary Affairs Education, Training, Youth Employment and Social Affairs	<input checked="" type="checkbox"/>	Energy Enlargement Enterprise Environment External Relations External Trade Fisheries and Maritime Affairs Food Safety Foreign and Security Policy Fraud Humanitarian aid	Human rights Information Society Institutional affairs Internal Market Justice, freedom and security Public Health Regional Policy Research and Innovation Space Taxation Transport
			<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

13c If Yes, at which level? <input checked="" type="checkbox"/> Local / regional levels <input checked="" type="checkbox"/> National level <input checked="" type="checkbox"/> European level <input checked="" type="checkbox"/> International level		
H Use and dissemination		
14. How many Articles were published/accepted for publication in peer-reviewed journals?	8	
To how many of these is open access⁴ provided?	4	
How many of these are published in open access journals?		
How many of these are published in open repositories?		
To how many of these is open access not provided?	3	
Please check all applicable reasons for not providing open access:		
<input checked="" type="checkbox"/> publisher's licensing agreement would not permit publishing in a repository <input type="checkbox"/> no suitable repository available <input type="checkbox"/> no suitable open access journal available <input type="checkbox"/> no funds available to publish in an open access journal <input type="checkbox"/> lack of time and resources <input type="checkbox"/> lack of information on open access <input type="checkbox"/> other ⁵ :		
15. How many new patent applications ('priority filings') have been made? ("Technologically unique": multiple applications for the same invention in different jurisdictions should be counted as just one application of grant).	none	
16. Indicate how many of the following Intellectual Property Rights were applied for (give number in each box).	Trademark	none
	Registered design	none
	Other	none
17. How many spin-off companies were created / are planned as a direct result of the project?	none	
<i>Indicate the approximate number of additional jobs in these companies:</i>		
18. Please indicate whether your project has a potential impact on employment, in comparison with the situation before your project: <input type="checkbox"/> Increase in employment, or <input type="checkbox"/> Safeguard employment, or <input type="checkbox"/> Decrease in employment, <input type="checkbox"/> Difficult to estimate / not possible to quantify		
	<input type="checkbox"/> In small & medium-sized enterprises <input type="checkbox"/> In large companies <input checked="" type="checkbox"/> None of the above / not relevant to the project	

⁴ Open Access is defined as free of charge access for anyone via Internet.

⁵ For instance: classification for security project.

4 Final report on the distribution of the European Union Financial Contribution

This report shall be submitted to the Commission within 30 days after receipt of the final payment of the European Union financial contribution.

Jiri Burrijanek from the Czech team informed us that he was not able to upload form C, but he will try to do this also later. He has sent us the financial report by mail.

The Italian team has informed us that they were too late for the submission of the financial report, so they requested a delay of fifteen days (see the annex 10).

Name of beneficiary	Final amount of EU contribution per beneficiary in Euros
STICHTING DR HILDA VERWEY-JONKER INSTITUUT	504,029.87
UNIVERZITA KARLOVA V PRAZE	115,269.55
TARTI ULIKOOL	154,300.88
FREIE UNIVERSITAET BERLIN	98,173.07
UNIVERSITA DEGLI STUDI DI GENOVA	
UNIVERSITEIT GENT	350,009.09
STIFTUNG UNIVERSITAT HILDESHEIM	99,452.04
Total	1,333,564.43

	Period 1	Period 2	Total amount EC	Interest	Minus interest
1 VJI (NL)	175,611.40	340,748.40	516,359.80	12,329.93	504,029.87
2 CUNI (CZ)	34,695.46	80,574.09	115,269.55		115,269.55
3 UT (EE)	51,177.28	103,123.60	154,300.88		154,300.88
4 FUB (DE)	33,127.44	65,045.63	98,173.07		98,173.07
5 UNIGE (IT)	255,206.36				0.00
6 UGENT (BE)	113,908.17	236,100.92	350,009.09		350,009.09
7 UH (DE)	55,614.44	43,837.60	99,452.04		99,452.04
	719,340.55	869,430.24	1,333,564.43	12,329.93	1,321,234.50

Annex 1

-----Oorspronkelijk bericht-----

Van: Alfredo Verde [mailto:a.verde@unige.it]

Verzonden: vrijdag 31 mei 2013 16:14

Aan: Majone Steketee

CC: Tammo Holtland

Onderwerp: delay in the submission of Italian team form C to EC

Dear Dr. Steketee,

on behalf of the Italian team of AAA-Prevent, I have to declare to you that unfortunately we are late in the submission of the financial report (form C) of Italian team to the EC by the digital ECAS system.

The deadline of May 31, announced by You on May 9th, has revealed too strict for us, given that Genoa University has recently changed its financial and administrative computer software, and that a lot of checks and calculations are needed in order to fill the form.

Please, could you propose to the EC a delay of fifteen days? I think we shall be able to submit the form before June 15.

With the apologies of all of us, I remain

Sincerely Yours

Alfredo Verde

Co-ordinator of AAA-Prevent Italian team