



AMPHORA – Alcohol Public Health Research Alliance

Deliverable D1.4 – Report on the volume of youth exposure to alcohol advertisements in European countries



Deliverable D1.4

Report on the Volume of youth exposure to alcohol advertising and sponsorship

Author: Avalon de Bruijn MSc (Dutch Institute for Alcohol Policy - STAP)

Abstract – Aims: There is growing evidence from longitudinal studies that the volume of alcohol advertising to which young people are exposed affects their alcohol drinking behaviour. This paper aims to give insight in the volume of adolescents' exposure to alcohol advertising in several European countries. A focus is laid on alcohol advertising on television, sport sponsorship and event sponsoring, promotional items, point of sale promotions and digital marketing. **Methods:** The paper describes analysis of cross-sectional data collected within the Amphora project. The sample (N=9380) contains secondary school students from Italy, Germany, the Netherlands, and Poland. **Results:** Already in the limited number of marketing channels examined, young people seem to be reached frequently by large numbers of alcohol marketing practices. In the paper frequency of (perceived) exposure is reported. **Conclusions:** Alcohol advertisers use marketing channels that are attractive and available to young people. Advertising in such channels guarantees exposure to large volume of European minors.

Acknowledgement

The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 223059 - Alcohol Measures for Public Health Research Alliance (AMPHORA).

Specific research for this paper was undertaken by: STAP (Dutch Institute for Alcohol Policy), the Netherlands

Partners in AMPHORA are:

1) Coordination: Hospital Clínic de Barcelona (HCB), Spain; 2) Agenzia Regionale di Sanità della Toscana (ARS), Italy; 3) Alcohol & Health Research Unit, University of the West of England, UK; 4) Anderson, Consultant in Public Health, Spain; 5) Anton Proksch Institut (API), Austria; 6) Azienda Sanitaria Locale della Città di Milano (ASL MILANO), Italy; 7) Budapesti Corvinus Egyetem (BCE), Hungary; 8) Central Institute of Mental Health (CIMH), Germany; 9) Centre for Applied Psychology, Social and Environmental Research (ZEUS), Germany; 10) Chemisches und Veterinäruntersuchungsamt Karlsruhe (CVUAKA), Germany; 11) Dutch Institute for Alcohol Policy (STAP), Netherlands; 12) Eclectica snc di Amici Silvia Ines, Beccaria Franca & C. (ECLECTICA), Italy; 13) European Centre for Social Welfare Policy and Research (ECV), Austria; 14) Generalitat de Catalunya (Gencat), Spain; 15) Institute of Psychiatry and Neurology (IPIN), Poland; 16) Institute of Psychiatry, King's College London (KCL), UK; 17) Istituto Superiore di Sanità (ISS), Rome, Italy; 18) Inštitut za raziskave in razvoj (UTRIP), Slovenia; 19) IREFREA, Spain; 20) Liverpool John Moores University (LJMU), UK; 21) National Institute for Health and Welfare (THL), Finland; 22) Nordiskt välfärdscenter (NVC), Finland; 23) Norwegian Institute for Alcohol and Drug Research (SIRUS), Norway; 24) State Agency for Prevention of Alcohol-Related Problems (PARPA), Poland; 25) Stockholms Universitet (SU), Sweden; 26) Swiss Institute for the Prevention of Alcohol and Drug Problems (SIPA), Switzerland; 27) Technische Universität Dresden (TUD), Germany; 28) Trimbos-instituut (TRIMBOS), Netherlands; 29) University of Bergen (UiB), Norway; 30) Universiteit Twente (UT), Netherlands; 31) University Maastricht (UM), Netherlands; 32) University of York (UoY), UK.

Introduction

Adolescents are disproportionately effected by social and physical alcohol-related harm (1). There is increasing evidence that exposure to alcohol marketing practices is one of the environmental factors that has a significant influence on juvenile drinking. Anderson and colleagues (2) reviewed thirteen longitudinal studies which were mostly conducted in the United States, New Zealand and Australia. The reviewed studies measured exposure to advertising and promotion in a variety of ways. Although variation in the strength of association exists, research consistently suggests that exposure to media and alcohol advertising is associated with the likelihood that adolescents will start to drink alcohol, and with increased drinking amongst drinkers (2). This conclusion is supported by the review of Smith and Foxcroft (3) and Meier and colleagues (4), which both concluded that there is an association between exposure to alcohol advertising or promotional activity and subsequent alcohol consumption among adolescents.

The promotion of alcohol is an enormously well-funded, ingenious and pervasive aspect of modern life (5). Alcohol advertisers argue their main target group are young adolescents from 21 to 24 (6). In practice, however, large numbers of young people are exposed and attracted to alcohol advertising and promotion in everyday life including minors (7). Jernigan (8) notes that the alcohol industry has intensified their targeting of young drinkers in recent years. The alcohol beverage industry has introduced an array of inexpensive products such as alcopops, alcoholic “energy” drinks, pre-mixed cocktails, and so on, with recipes and packaging that appeal to young people (8).

Besides developing products that are affordable and attractive to youngsters, alcohol advertisers use a broad range of marketing tools to which adolescents in both developed and developing countries are exposed. This marketing strategy results in a variety of alcohol advertising and promotion practices to which adolescents are exposed that ranges from broadcasted alcohol advertisements to sponsoring and to advertisement in new media (9, 10). A recent study by the National Youth Council of Ireland (10) shows that Irish adolescents were exposed to alcohol advertising and promotion through sixteen different communication channels such as televised advertisements, sponsoring, outdoor advertising and alcohol advertising on the internet.

Publicly available data on the prevalence of alcohol marketing in society is scarce. In the United States, alcohol producers report the marketing expenditures to the Federal Trade Commission (11). In most other countries, this practice is non-existing. Consequently, there is not a lot data available on the total size of alcohol marketing and even less about youth exposure to alcohol advertising. When studying the volume of alcohol marketing in Europe, we have to rely on the little data available which consists mainly out of marketing expenditures of the so called “measured” advertising which covers advertising on TV, radio, magazines and billboards.

Alcohol advertising expenditures

Although there are some important limitations when taking alcohol advertising expenditures of measured media as an indicator of the total volume of alcohol advertising. It is expected that the large variety in alcohol advertising expenditures reflects potential differences in youth exposure to alcohol advertising.

A preliminary analysis with macro data from Nielsen Media Research (12) and the latest ESPAD study (13) suggests a relatively strong correlation between alcohol advertising expenditures per capita and average alcohol consumption of adolescents in 8 analysed

European countries¹. The average alcohol consumption at the latest drinking day of 15- and 16 year olds in the UK was high compared to other sampled European countries. Excluding this outlier, the analysis shows a correlation of 0.91 between alcohol advertising expenditures and adolescents' alcohol consumption, which was highly significant ($p=.002$).

EU countries differ with respect to the alcohol advertising expenditure per capita. The alcohol advertising expenditures of measured media (television, radio, magazines/newspapers and billboards) in 2007 were per capita respectively: €6,70 in Germany; €5,15 in the Netherlands and €2,86 in Italy. Not many figures are publicly available for Poland. Televised alcohol advertising expenditures have almost been doubled in five years time since the lift of the ban on beer advertising on television, from 46 million euro in 2002 (14) to 96 million euro in 2007 (14). With alcohol advertising expenditures on TV of €3,6 per capita, expenditures in Poland are still relatively low compared to those of other large European countries (12). This might be due to a ban on advertising of spirits and wine.

The alcohol advertising expenditures of measured media are an underestimation of the total alcohol advertising expenditures of the alcohol industry. The Federal Trade Commission suggests that industry's total expenditures in the United States to promote alcohol may be three or more times its expenditures for measured media advertising (11). In an overview of European data provided by the European Association of Communications Agencies (EACA) alcohol advertising expenditures related to advertising on the internet contributed to one fifth of the advertising expenditures of all media measured (internet, television, magazines and newspapers) (12).

The actual volume of alcohol marketing is expected to be related, but not to be completely similar to the advertising expenditures. Direct promotion and/or alcohol marketing in new media is often an inexpensive but effective way to promote alcohol marketing to large audiences.

Moreover, spendings on alcohol advertising and the total volume of alcohol advertising is only a proxy of the total volume of alcohol marketing practices to which young people are exposed. Young people may be targeted or be better reached by marketing practices in some channels than in others. For this reason it is better to investigate the volume of youth exposure to alcohol marketing by researching the reception of young people.

Additionally, research from 2009 showed that adolescents in Ireland are exposed to alcohol marketing by at least sixteen different communication channels (7). A preliminary diary analysis among 100 young people in the Netherlands showed youngsters (mean age 15 years) reported they have seen/heard an average of 7.38 alcohol marketing practices in two days of monitoring (STAP, not yet published). The data collected showed that alcohol advertising in non-traditional marketing channels contribute to more than one third of the alcohol advertising to which young people are exposed.

Aims

This paper aims to give insight in the volume of adolescents' exposure to alcohol advertising in four European countries (Italy, Germany, the Netherlands, and Poland). A focus is laid on alcohol advertising on television, sport sponsorship and event sponsoring, promotional items, point of sale promotions and digital marketing; marketing channels that are thought to be (especially) relevant to young people.

¹ Countries included in the sample were: Belgium, France, Germany, Italy, the Netherlands, Sweden, Switzerland, and the UK.

Televised Alcohol Advertising

Most of the measured alcohol advertising expenditures in the United States and Europe are invested in alcohol advertising on television (11, 12). European figures by Nielsen Media Research show that in 8 European countries, televised alcohol expenditures contribute to over half of all measured alcohol advertising expenditures in 2007 (12). Since television is a highly prevalent medium in European adolescents' life, it is not surprising that European adolescents are frequently reached by televised alcohol advertisement and are able to identify favourite televised alcohol advertisements (15). Between 65% and 75% of the 13- to 15-year-olds in the selected European countries watch television for two or more hours on weekdays (16). This is even higher during weekends (16).

Sport sponsorship and event sponsoring

Another marketing instrument important to the industry is alcohol-branded sport sponsorship. More than a quarter of all alcohol advertising and promotion expenditures in the US is related to sports and sporting events (11). Sport-related alcohol advertising and promotion expenditures for European countries are not publicly available. But generally, sports sponsorship is very important for the European sports industry. Annual sports sponsoring investments made in Europe are 6,7 million euros (17). In most European countries, alcohol marketing often uses sport as a central theme (15) and many sporting events and teams are sponsored by alcohol producers. For example, the beer brewer Carlsberg mentions in its Annual Report (18) that sport and especially football has been the key international communication platform for its brand for a number of years. The European Football Championship of 2004 and 2008 were sponsored by Carlsberg. Each game of the 2004 championship reached 120-220 million viewers around the world. The Carlsberg perimeter boards were visible on TV for more than 16 minutes of every match in at UEFA Euro 2004 and over 20 minutes in 2008 and over 350.000 promotional items with the Carlsberg brand were distributed during the championship(19). The FIFA World Championship in 2010 was sponsored by the alcohol marketing leader Anheuser Busch-Inbev. Youth awareness of alcohol-branded sponsorship differs between European countries.

Promotional items

A third type of alcohol advertising and promotion is exposure to alcohol-branded promotional items. There is growing evidence that this specialized form of alcohol advertising and promotion effectively reaches adolescents and is associated with increasing use of alcohol (20). Among different advertising tools that have been studied, adolescents' ownership of alcohol-branded promotional items (e.g. alcohol-branded caps or t-shirts) might be the strongest predictor of adolescents' alcohol use (21),16,(22). Collins et al (21) found that, all else being equal, adolescents who owned a beer-branded promotional item were 1.76 times more likely to drink beer. Besides the (free) gift of alcohol-branded promotional items, young people are often exposed to alcohol marketing practices at the point of sale.

Digital marketing

When comparing the media use of young people, internet is the leading media and even more time is spent on the internet than by watching television.

Table 1 Media use European youth in hours

European average of hours spent using each media in a typical week (16-24 year olds):	
1. Use the internet	14.7 hours
2. Watch television	13.4 hours
3. Listen to Radio	11.6 hours
4. Read Newspapers	4.4 hours
5. Read Magazines	3.9 hours

Source: EIAA Mediascope Europe 2007, 10 European markets, n=858.

Method

Sample

In order to study the volume of exposure to alcohol advertising in Germany, Italy, the Netherlands and Poland a total of 9380 students participated in a survey held in November 2010, which is part of a longitudinal study on the impact of alcohol marketing within the FP-7 project Amphora. Ethical approval was obtained from the Ethical Commission of the Radboud University Nijmegen, the Netherlands. In this school based survey, all respondents in the selected classes were asked to participate. An equal distribution between boys and girls had been found. A large majority of the respondents was 13 or 14 years of age (see table 2), which was aimed. This is an important age regarding starting to drink. Although drinking age of onset differs between countries, at the age of 15 and 16 years, almost all adolescents have consumed their first alcoholic drink (13). Within each country a sample of schools was drawn stratified with respect to level of urbanization and level of education (see table 3). Due to practical limitations, only schools with sufficient computers to fill out the computerized questionnaire were sampled.

Self-administered web-based questionnaires will be filled out within a school-based setting with the assistance of a research assistant in class. A translated standardized questionnaire was used in every country to increase comparability of the data. Main concepts within the questionnaire have been pre-tested by a total of 40 focus groups with young people aged 13-15 (N=280). The focus groups showed the relevance of including the selected types of alcohol advertising and promotion in the survey. The questionnaire in the survey was pre-tested by 100 respondents within each country.

Table 2 Characteristics of respondents: Gender and age distribution by country

		N	Minimum	Maximum	Mean	Std. Deviation
Germany	Age	1939	11,89	16,59	13,86	,73
	Sex (1=boy, 2=girl)	1930	1	2	1,48	,50
Italy (online questionnaires)	Age	2861	10,96	16,90	14,77	,70
	Sex (1=boy, 2=girl)	2846	1	2	1,50	,50
Netherlands	Age	2079	11,26	18,86	13,82	,54
	Sex (1=boy, 2=girl)	2079	1	2	1,51	,50
Poland	Age	2544	10,95	18,86	13,57	,62
	Sex (1=boy, 2=girl)	2549	1	2	1,51	,50
Total	Age	9423	10,95	18,86	14,05	,82
	Sex (1=boy, 2=girl)	9404	1	2	1,50	,50
Total Valid N		9380				

Table 3 Characteristics of respondents: Level of education by country

	Germany	Italy (online questionnaires)	Netherlands	Poland
(0)General level	Gesamtschule n=77, 4.0%	-	-	Gymnasium N=2549, 100%
(1)Preparation vocational training	Hauptschule n=677, 34.8%	Instituto Professionale n=862, 30.1%	VMBO(preparates also for lower professional training) n=971, 46.7%	-
(2)Preparation professional training	Realschule n=693, 35.6%	Instituto technico n=814, 28.4%	HAVO n=549, 26.4%	-
(3)Preparation university	Gymnasium n=498, 25.6%	Liceo n=1191, 41.5%	VWO N=559, 26.9%	-

Measurements

Exposure to Televised Alcohol Advertising was measured with the question: In the past week, how many TV adverts have you seen for alcoholic drinks, like beer, wine, alcopops (eg Barcardi Breezers), or spirits? Answers ranging from 0 to 6 or more adverts.

Exposure to event and sport sponsorship was measured by (a combination of) four questions: How often have you watched to the World Championships 2010 in the previous year? Answers measured by a 5-point likert scale: Never, rarely, sometimes, often, very often. Respondents were also asked: Are the World Championships or participating clubs sponsored by an alcohol company? Respondents could answer: yes, no, or I do not know. Do you know any famous athlete that is sponsored by an alcohol company? Possible answers were yes, no, I do not know. And the question: How often see you alcohol sponsorship at events? Answers measured by a 5-point likert scale: Never, rarely, sometimes, often, very often.

Ownership of alcohol branded items was measured with the question: Do you own an item – like a t-shirt, lighter, matches, hat, or sunglasses – with an alcohol brand name on it? Answer categories No or Do not know, yes

Participating in exposure to alcohol advertising in digital marketing was measured by questions developed by Gordon et al (2010) containing the 6 items Have you ever Received promotional mail, e-mails or joke, chain, or wind up e-mails mentioning alcohol brands?; Have you ever Looked at a web site for alcohol brands or about drinking dont include health related sites?; Have you ever Downloaded a mobile phone or computer screensaver containing an alcohol brand name or logo?; Have you ever Used a profile page on sites such as hyves, facebook, msn or myspace containing alcohol brand or logo?; Have you ever Noticed an internet page that contained an alcohol advertisement?; Have you ever Purchased or ordered alcohol by the internet? Answers measured by a 5-point likert scale: Never, rarely, sometimes, often, very often.

Data analysis

Frequency analyses were conducted in SPSS 18.0 to examine the amount of (perceived) alcohol advertising exposure within the marketing channels studied.

Results

Youngsters participated in the Amphora study reported to see an average of more than 4 alcohol commercials on TV in the last week. Figure 1 shows the number of alcohol ads on television young people remember to have seen in the previous week.

Figure 1. Exposure to televised alcohol advertising

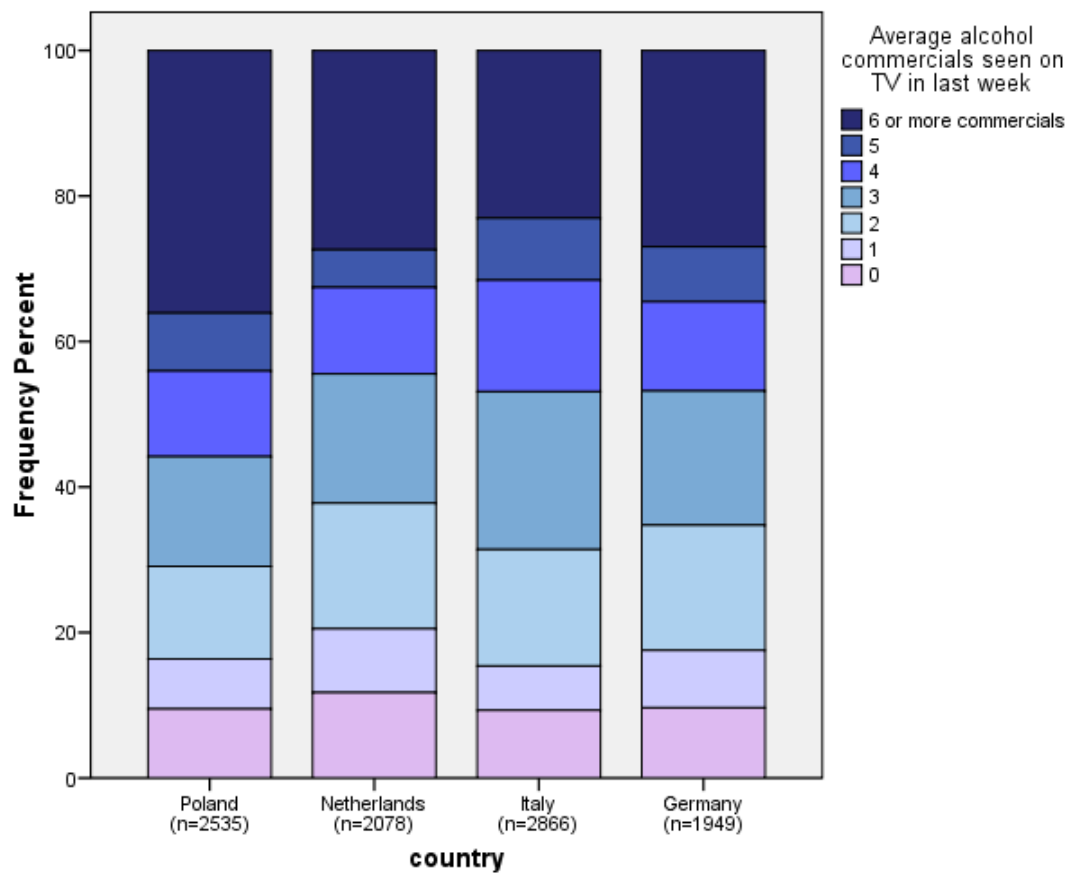


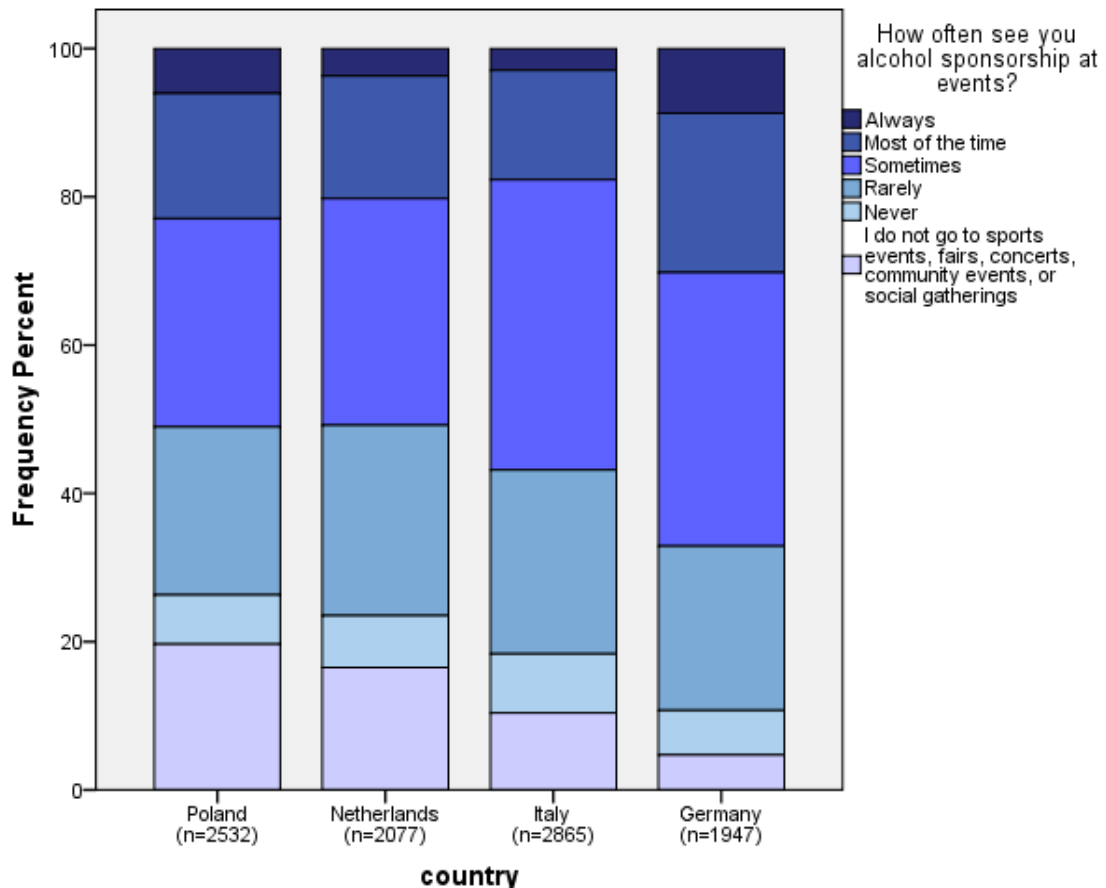
Table 4 shows the relative number of youngsters in the Amphora that watched the World Championship (which was officially sponsored by beer producer Carlsberg) on television and the relative number of youngsters that were aware of alcohol-branded sponsorship of the competition.

Table 4. Exposure to World Cup 2010

Country	Watched World Cup on TV	% aware of alcohol-branded sponsorship of the World Cup
Germany (n=1947)	93,0%	25,1%
Italy (n=2865)	65,2%	10,6%
Netherlands (n=2077)	88,0%	41,4%
Poland (n=2532)	73,1%	13,6%

When asking young people whether they know of famous athletes that sponsor alcohol advertising, only 6,5% of the young people in the four selected countries (n=9387) is able to remember alcohol-branded sponsorship of athletes.

Figure 2. Exposure to alcohol branded event sponsoring



When asking young people, however, about event sponsoring by alcohol producers, a majority of the youngsters (age 12-16) are familiar with this kind of alcohol marketing (see figure 2). Of these youngsters, 41,7% reported to have received free gifts, showing alcohol brand logos, given out at events such as concerts, festivals or sports events.

Results underline that disseminating promotional items is an important marketing tool by alcohol advertisers. When asking young people in the Amphora study whether they items like a t-shirt, lighter, matches, hat, or sunglasses with an alcohol brand name on it, 26,4% of the youngsters (n=9404) reported to own such a promotional item and 28,9% of the youngsters reported that a family member owned such an item.

The point of sale is a place in which these promotional items are often disseminated. Among the youngsters in the Amphora sample 31,2% reported to have received free gifts, showing alcohol brand logos, given out while purchasing alcohol products.

Besides the (free) gift of alcohol-branded promotional items, young people are often exposed to alcohol marketing practices at the point of sale. For example, 22,1% of the youngsters in the Amphora sample (n=9414) has received free samples of alcohol products and 31,4% has received special price offers for alcohol.

Alcohol advertisers seem to be aware of media use among adolescents and reach young people online in various ways. The Amphora study shows that in the four selected countries:

- > 33% of the youngsters received promotional mail, e-mails or joke, chain, or wind up e-mails mentioning alcohol brands.

- > 21,5% of the youngsters looked at a web site for alcohol brands or about drinking (don't include health related sites)

- > 18,3% of the youngsters downloaded a mobile phone or computer screensaver containing an alcohol brand name or logo

- > 32,3% of the youngsters used a profile page on sites such as hyves, facebook, msn or myspace containing alcohol brand or logo.

- > 65,8% of the youngsters noticed an internet page that contained an alcohol advertisement, and 20,7% reported to notice this often or very often. 65,8% of which 20,7% often or very often.

Conclusion

Alcohol marketers spend large amounts of money to market their product. They use a large variety of marketing channels to reach (potential) consumers. This report described the exposure to alcohol marketing of European youngsters in a selection of channels. Emphasis was put on countries in which the longitudinal study of the Amphora project is performed, namely: Germany, Italy, Netherlands and Poland. Already in the limited number of marketing channels examined, young people seem to be reached frequently by large numbers of alcohol marketing practices. Alcohol advertisers use marketing channels that are attractive and available to young people. Advertising in such channels guarantees exposure to large volume of European minors.

References

1. Anderson P, Baumberg B. Alcohol in Europe: a public health perspective: Institute of Alcohol Studies, UK. 2006.
2. Anderson P, de Bruijn A, Angus K, Gordon R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. *Alcohol* 2009 May-Jun;44(3):229-43.
3. Smith LA, Foxcroft DR. The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. *BMC Public Health* 2009;9:51.
4. Meier P, Brennan A, Purshouse R, Taylor K, Rafia R, Booth A, et al. Independent review of the effects of alcohol pricing and promotion: Part B. Modelling the potential impact of pricing and promotion policies for alcohol in England: Results from the Sheffield Alcohol Policy Model Version 2008 (1-1). University of Sheffield: Report for Department of Health Policy Research Programme 2008.
5. Osterberg E. What are the most effective and cost-effective interventions in alcohol control. Health Evidence Network Report Copenhagen: World Health Organization, Regional Office for Europe <http://www.euro.who.int/document/E2004/82969>.
6. Insights B. Growth strategies in alcoholic drinks 2007.
7. CAMY. Youth Exposure to Alcohol Advertising on Television and in National Magazines, 2001 to 2006. CAMY Monitoring Report [serial on the Internet]. 2007: Available from: <http://www.camy.org/research/tvmag1207/tvmag1207.pdf> (Archived by WebCite® at <http://www.webcitation.org/5iSJagcTK>).
8. Jernigan D. Global status report: Alcohol and young people. Geneva: World Health Organization 2001;57.
9. Gordon R, MacKintosh AM, Moodie C. The impact of alcohol marketing on youth drinking behaviour: a two-stage cohort study. *Alcohol and Alcoholism* 2011;45(5):470-80.
10. Hope A. Get 'em Young: Mapping young people's exposure to alcohol marketing in Ireland. Dublin: National Youth Council of Ireland 2009.
11. FTC. Self-Regulation in the Alcohol Industry Federal Trade Commission; 2008 [cited 2008 June]. Available from: <http://www.ftc.gov/os/2008/06/080626alcoholreport.pdf> (Archived by WebCite® at <http://www.webcitation.org/5iSMTEnCO>).
12. EACA. EU Advertising Spend Statistics <URL:<http://www.eaca.be/ff/search.asp?search=1&year=2007§or=Alcoholic+Drinks&country=>>. Accessed: 2009-07-22. (Archived by WebCite® at <http://www.webcitation.org/5iSCbQ23M>) <<http://www.webcitation.org/5iSCbQ23M>> 2009 [cited 2009 July 22]; Available from: <http://www.eaca.be/ff/search.asp?search=1&year=2007§or=Alcoholic+Drinks&country=>> (Archived by WebCite® at <http://www.webcitation.org/5iSCbQ23M>) <<http://www.webcitation.org/5iSCbQ23M>>
13. Hibell B, GÜ, Ahlström S., Balakireva O., Bjarnason Y., Kokkevi A., Kraus L. The 2007 ESPAD Report Stockholm: Modintryckoffset AB; 2009 [cited 2009 July 23]. Available from: http://www.espad.org/documents/Espad/ESPAD_reports/2007/The_2007_ESPAD_Report-FULL_090617.pdf (Archived by WebCite® at <http://www.webcitation.org/5iTl4UKlr>).
14. Carat. Quantitative impact of the regulation on TV advertising markets in EU Member States, EEA countries, the new Member States and a number of third party countries 2005 [cited 2009 July 23]. Available from: URL:http://ec.europa.eu/avpolicy/docs/library/studies/2003/44_03_re_pl.pdf (Archived by WebCite® at <http://www.webcitation.org/5iTmYE3nl>).
15. STAP. Appealing Alcohol Beverages and Marketing Practices in Europe. Utrecht: Dutch Institute for Alcohol Policy (STAP); 2007.
16. Currie C, Gabhainn S, Godeau E, Roberts C, Smith R, Currie D, et al. Inequalities in young people's health: HSC international report from the 2005/2006 survey: World Health Organization; 2008.
17. IMR. European sport sponsorship now worth 6,7 billion. 2007.
18. Carlsberg. Annual Report 2004/2005.
19. Carlsberg. Annual Report 2008/2009.
20. McClure AC, Stoolmiller M, Tanski SE, Worth KA, Sargent JD. Alcohol-branded merchandise and its association with drinking attitudes and outcomes in US adolescents. *Arch Pediatr Adolesc Med* 2009 Mar;163(3):211-7.
21. Collins RL, Ellickson PL, McCaffrey D, Hambarsoomians K. Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *J Adolesc Health* 2007 Jun;40(6):527-34.

22. Henriksen L, Feighery EC, Schleicher NC, Fortmann SP. Receptivity to alcohol marketing predicts initiation of alcohol use. *J Adolesc Health* 2008 Jan;42(1):28-35.