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DRINKING POPULATION SURVEYS – GUIDANCE DOCUMENT FOR STANDARDIZED APPROACH

Final report prepared for the project
Standardizing Measurement of Alcohol-Related
Troubles – SMART

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Acknowledgements

Abstract

Currently, population surveys which focus on alcohol consumption and related problems are carried out regularly in almost all EU and EEA countries. Despite serious efforts and substantial spending, comparison of results across the EU is difficult, if possible at all, due to the lack of standardised methodologies. To fill this gap the EU Project: "Standardized measurement of alcohol-related troubles" (SMART[1]) was launched. One of its objectives was "to develop standardized comparative survey methodologies on heavy drinking, binge drinking, drunkenness, context of drinking, alcohol dependence and unrecorded consumption".

The methodology, developed on the basis of a review of European survey experiences from over 20 countries as well as a literature review, was tested (pilot survey) in 10 countries with different socio-cultural backgrounds and patterns of alcohol consumption (Czech Republic, Estonia, Finland, Germany, Hungary, Ireland, Italy, Poland, Spain, UK).

As a result, a model questionnaire with relevant guidelines for its implementation was designed and proposed for consideration for drinking specific surveys and as a component of other health surveys carried out at national, regional and EU levels. Therefore, the questionnaire consists of core and optional questions.

The core questions include alcohol consumption measures (beverage specific quantity frequency and risky single occasion drinking), questions on the context of drinking, a screening measure for alcohol abuse/dependency (RAPS), and questions on individual harm and harm from others, as well as social support for alcohol policies.

This publication discusses the background of proposed questions, methodological considerations and limitations. It also offers technical instructions as regards interviewing and data processing. Suggestions for further research are formulated.

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[1] EAHC grant agrement 2007308

1. Introduction

Alcohol is a major health determinant in the EU. It is estimated that 53 million EU adults do not drink alcohol at all, and some 58 million are heavy drinkers, of whom some 23 million are dependent on alcohol (Anderson & Baumberg 2006, http://ec.europa.eu/health-eu/news_alcoholineurope_en.htm). One of the most important social determinants of the harm done by alcohol is inequalities between and within countries. Anderson & Baumberg estimated that alcohol is responsible for the higher crude death rate of approximately 90 extra deaths per 100,000 people for men and 60 per 100,000 for women (as well as 16,000 DALYs per million people for men and 4,000 DALYs per million for women) in the newer EU Member States, compared with the older 15 Member States (EU15). For males dying between the ages of 20 and 64 years, injuries are responsible for nearly half (46%) of the difference in life expectancy between the three Baltic states (Estonia, Latvia and Lithuania) and the older EU15, and for one fifth (22%) of the difference between central and eastern Europe (Poland, Czech Republic, Slovakia, Hungary, Slovenia, Romania, Bulgaria) and the EU15. Whereas in the EU15, alcohol is responsible for 29% of all male injuries and 19% of all female injuries, in the central and eastern European countries, the proportions are 38% and 29%, and in the three Baltic states 48% and 42% respectively. (Zatoński ed. 2008)

Some 80 million EU citizens binge-drink (60g alcohol - six drinks - on one occasion) at least once a month, representing just over 1 in 4 of the adult population, and, based on the ESPAD and HBSC surveys, over 1 in 8 (13%) of 15-16 year old students have been drunk more than 20 times in their life, and over 1 in 6 (18%) have binged (5+ drinks on a single occasion) three times or more in the last month. (Currie et al. 2008, Hibbel et al 2009) In their review, Anderson & Baumberg noted that the estimated prevalence of different drinking patterns to a considerable degree depended on the questions asked. For example, students from southern Europe are about one-fifth as likely as than those from elsewhere in Europe to report being drunk more than 20 times in their life, although they are half as likely to report drinking 5+ drinks on a single occasion more than 3 times in 30 days. Noting the disparate definitions and methodologies, Anderson & Baumberg recommended that repeated and comparative surveys with standardized definitions are required throughout Europe for abstention, heavy drinking, episodic heavy drinking (binge-drinking), drunkenness, context of drinking, alcohol dependence, and unrecorded consumption.

To date, this detailed level of work on alcohol consumption and patterns of drinking has not been undertaken at the European Union level. Important efforts are made by EUROSTAT within the European Health Interview Survey (EHIS) which includes questions on alcohol consumption and heavy episodic drinking in a comprehensive health interview (alcohol questions represent no more than a couple of per cent of this lengthy instrument). (http://ec.europa.eu/health/strategy/implementation/hic/hes/index_en.htm) In 2007 and 2009 EUROBAROMETER conducted its alcohol survey with a focus on alcohol consumption, risk perception and, for the first time, on EU citizens' attitudes towards alcohol. The questionnaire does not pay particular attention to specific individual drinking cultures (e.g. type of beverage) or to the cultural and political relevance of individual questions. (TNS Opinion & Social 2010) Neither survey initiative offers any methodology to estimate annual alcohol consumption.

Against this background, the European Commission within its public health grants called for the development of standardised comparative surveys on heavy drinking, binge-drinking (episodic heavy drinking), drunkenness, context of drinking, alcohol dependence and alcohol related problems, and unrecorded consumption as part of its 2007 work plan.

In response to that call, a project proposal on Standardising Measurement of Alcohol Related Troubles (SMART) was submitted by the Institute of Psychiatry and Neurology, Warsaw, Poland. The project was eventually granted. Its implementation lasted 26 months from September 2008 till October 2010. The project succeeded in involving prominent academic and research centres from ten EU countries including the Czech Republic, Estonia, Finland, Germany, Hungary, Ireland, Italy, Poland, Spain and UK. The countries involved represented a good variation of drinking cultures and levels of economic development. Old as much as new EU members participated, offering a good sample for testing a comparative drinking survey instrument.

A major aim of the project was to develop a standardized comparative survey methodology on alcohol consumption, including unrecorded supply, heavy drinking, binge drinking (episodic heavy drinking), drunkenness, context of drinking, alcohol dependence and alcohol related problems, as well as public support for alcohol policy measures.

To achieve this aim the project completed a comprehensive literature review on methodologies of alcohol surveys, (Bloomfield, Hope, Kraus forthcoming) and carried out a survey of surveys, which involved the identification, collection and reviewing of over forty distinct questionnaires from twenty two European countries (Sierosławski, Foster, Moskalewicz forthcoming). It was found that, despite serious efforts and substantial spending, a comparison of survey results across the EU is difficult, if at all possible, due to numerous methodological problems. There are no standardised methodologies in the EU of drinking surveys which include consumption measures, heavy drinking, binge-drinking (episodic heavy drinking), drunkenness, context of drinking, alcohol dependence and alcohol related problems, and unrecorded consumption.

Based on these reviews and expert meetings, a survey protocol including a questionnaire for a comparative drinking survey was designed. . The questionnaire was then pilot-tested in nine participating countries. A number of its core questions were then used in the Irish national drinking survey.

The SMART questionnaire was composed of a number of sections:
- alcohol consumption,
- risky single occasion drinking and drunkenness,
- standard instruments for measuring and/or screening alcohol dependence and abuse,
- harm from others,
- unrecorded supply,
- opinions on alcohol policy,
- socio-demographic data.

Three major approaches were tested to measure alcohol consumption: beverage specific quantity/frequency (BSQF), graduated frequency (GF) and last occasion (LO). Similarly, three standard instruments to measure abuse and dependency were applied: CIDI (The Composite International Diagnostic Instrument) based on DSM-IV, AUDIT (The Alcohol Use Disorders Identification Test) and RAPS (The Rapid Alcohol Screening Test). To control for the impact of the order of questions, both alcohol consumption measures and standard instruments were randomly allocated. In effect, twelve versions of the questionnaire were designed and applied.

After completing the above core questions, the respondents assessed the questionnaire and its individual questions in a series of open-ended questions. Special assessment reports were also provided by all interviewers.

Each country selected a quota sample of about 200 respondents which gave us a sample of about two thousand Europeans to test the pilot study and to draw conclusions.

In addition, focus group interviews were carried out in seven countries to investigate meanings and understanding of basic concepts used in alcohol surveys. Participants were recruited mostly from the respondents to the pilot survey who volunteered to participate. All in all, 21 focus group discussions were completed among urban dwellers, rural inhabitants and heavy drinkers.

Lessons from this pilot exercise show that comparative alcohol surveys are possible and feasible across Europe despite the continuing existence of different drinking cultures and of economic inequalities.

The aim of this document is to propose a concise methodology of alcohol surveys which can be used across Europe either in comparative studies or to facilitate cross-country comparisons. It is expected that better use of standardized approaches across Europe will lead to more informed and evidence based policy making to reduce alcohol's health and economic burden to Europe. In this sense the SMART project functions to support implementation of EU alcohol strategy as much as national alcohol policies.

This document targets scientists and researchers with a certain amount of experience in conducting drinking surveys who intend to continue their efforts to offer their societies a comparative understanding of drinking and related problems and also an empirical base for policy-making and its monitoring.

2. Questionnaire
2.1. Structure

The structure of the proposed questionnaire is similar to the structure of the pilot instrument. Substantial changes, however, were made on the basis of the pilot study and thanks to

discussions which followed, in particular during the final SMART conference, which was attended by around 30 alcohol survey experts from 20 countries.

The proposed questionnaire is composed of six core sections:

- alcohol consumption: generic frequency and beverage specific quantity/frequency,
- risky single occasion drinking,
- rapid alcohol problem screen,
- harm from others,
- unrecorded alcohol supply,
- attitudes towards alcohol policy.

It is estimated that an interview based on core questions only would not last longer 10 - 15 minutes, in particular if Computer Assisted Personal Interview (CAPI) version is available. If a few optional questions are added (e.g. country-specific beverage, CIDI) the duration of the interview may be 5-10 minutes longer.

This document does not include any socio-demographic section as that should depend on the purpose of individual survey initiatives.

The proposed instrument constitutes an entity which can be implemented just with the core questions only or with a selection of optional questions. Nevertheless, each section of the questionnaire may be used as an independent entity and integrated within other surveys.

2.2. Alcohol consumption and drinking pattern

2.2.1. Background

Annual alcohol consumption is the most general indicator of drinking patterns; it is estimated from both sales statistics and from general population surveys. It is usually defined as total consumption of all alcoholic beverages during 12 months recalculated into litres of 100% alcohol per capita. (Edwards at al 1994)

Annual alcohol consumption is considered a good predictor of alcohol related problems at the individual level, also. The probability of problems appearing grows with increasing volume

of annual alcohol consumption. This relationship becomes exponential at the higher consumption levels. Relative risk analyses show that for a number of health problems, relative risk grows exponentially beyond a threshold of 20 grams of ethanol daily for females and 40 grams for males, which roughly corresponds with 9 litres and 16 litres of ethanol annually for a female and a male, respectively.(WHO 2000)

There are three major approaches to measuring alcohol consumption in surveys:

- quantity-frequency measures;
- graduated frequency measures;
- short-term recall measures.

All three approaches were tested in the SMART Project: beverage specific quantity-frequency method (BSQF), generic quantity-frequency method (QF), graduated frequency method (GF) and last occasion method (LO). The SMART study recommends the BSQF approach as it gave the highest estimates of annual consumption, offered reliable predictions of drinking problems and was considered relatively easy to implement by the majority of respondents.

The literature review undertaken within the SMART study confirms that the beverage specific quantity-frequency (BSQF) works well in international comparative surveys. (Bloomfield, Hope, Kraus forthcoming) Moreover, it is the approach which is most commonly used to measure alcohol consumption across Europe according to the review of 27 European countries completed as part of the SMART study. (Sierosławski, Foster, Moskalewicz forthcoming)

The BSQF method consists of asking about frequency of drinking of particular types of alcoholic beverages in a defined period and then about the quantity usually drunk on one occasion (drinking episode) or one day.

The advantages of this method as a European standard are as follows:
1. The survey questions are understandable even for respondents with limited intellectual skills
2. The wording of the questions is in line with the every day experiences of respondents and consistent with the way respondents think

3. Drinking behaviours are reported in a simple way which does not demand from respondents any complicated calculations or other operations
4. Only six questions are used, so the implementation is not time-consuming.
5. The method captures the variation of different drinking cultures allowing analyses by the type of alcoholic beverages

The BSQF also has limitations. It is less reliable when attempting to measure irregular drinking patterns as irregular drinkers will have difficulties in calculating average frequency and average quantity drunk during one day. There is a problem with the concept of 'average'. Usually respondents do not report mean values but rather dominant ones when they are asked about average frequency or average quantity. We cannot expect that they will be able to calculate means, especially in cases of irregular drinking patterns. Other shortcomings of BSQF are that it cannot capture the variations of different types of alcoholic beverages drunk together on one occasion, and finally it may not estimate the overall frequency of drinking as it asks about each beverage separately. Also, the average quantity of alcohol consumed per one occasion or one day cannot be estimated because we do not know how often a respondent consumed a combination of various types of alcohol beverages on one occasion.

A shorter approach, called the generic quantity/frequency method, can provide generic frequency of drinking and average quantity of alcohol consumed per occasion or day, but it has two serious deficiencies. First of all, it does not capture the variation of different drinking cultures associated with different beverages which may or may not be common across countries. Secondly, it forces respondents to re-calculate their varying drinking practices into a common quantity measure – a standard drink – something that is usually difficult for respondents, especially those who drink various alcoholic beverages and are not familiar with the concept of the standard drink. Moreover, in the generic approach, respondents may report only the beverage which is the most typical for their regular drinking pattern and do not consider beverages consumed irregularly.

The 'standard drink', which originated in the United States, (Bloomfield K., Hope A., Kraus L. forthcoming) has not been adopted in most European countries. Taking into account the variety of alcoholic drinks with very different alcohol content, commonly consumed in glasses with different volume, the application of any common measures like a standard drink or unit is not at all feasible in Europe as it may lead to serious miscalculations.

There are different time frames used for asking about alcohol consumption, the most common being 12 months, though 30 days is also used. There are difficulties with both time frames. It is likely that many respondents find it difficult to recall their drinking over a 12 month period. However, using the 30 days approach fails to capture irregular drinking patterns and obviously those who have not drunk in the last month. It is important to note that 'last 30 days' is not necessarily representative for the whole year due to seasonal variation reported in the focus group discussions carried out within the SMART study. Considering the pros and cons of both time frames, we recommend 'the last 12 months' as it provides a more comprehensive picture of alcohol consumption and offers an opportunity to study the relationships between consumption and associated problems which are not very likely to occur with sufficient frequency during the last 30 days. (Dawson 2003)

The majority of surveys asked the participants to estimate their alcohol consumption by reference to one day, though some use 'an occasion.' There are difficulties in using 'an occasion' as it is very imprecise in terms of duration (i.e. how long is an occasion?); and how representative is an 'occasion' of typical drinking? 'One day' is more easily understood and defined and therefore this was adopted as a standard time frame when asking about volume of alcohol consumed.

2.2.2. Model questions

Generic frequency

F_1. How often did you drink beer, wine, spirits (e.g. vodka, gin, whisky, brandy) or any other alcoholic beverage, even in small amounts, for example a glass of beer, wine or spirits, in the past 12 months?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) I did not drink last 12 months, but I drank earlier
11) I never drank in my life

BSQF – Beverage specific quantity frequency method

Now I would like to ask you how often you drank particular alcoholic beverages over the past 12 months and how much you drank on average on a day when you drank.

BSQF_1. How often did you drink beer over the past 12 months?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) I did not drink last 12 months, but I drank earlier
11) I never drank in my life

BSQF_2. How much did you drink on average on a day when you drank beer over the past 12 months?

....

National team should define and print here the unit of reporting e.g. a pint of beer or half a liter bottle

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BSQF_3. How often did you drink wine over the past 12 months?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) I did not drink last 12 months, but I drank earlier
11) I never drank in my life

BSQF_4. How much did you drink on average on a day when you drank wine over the past 12 months?

....

National team should define and print here the unit of reporting e.g. 150 milliliter glass

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BSQF_5. How often did you drink spirits (e.g. vodka, gin, whisky, brandy) over the past 12 months?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) I did not drink last 12 months, but I drank earlier
11) I never drank in my life

BSQF_6. How much did you drink on average on a day when you drank spirits over the past 12 months?

....

National team should define and print here the unit of reporting e.g. 30 milliliter glass

2.2.3. Core variables

The set of core variables use for analyses of alcohol consumption and drinking patterns is summarised below:

Variable name	Variable label	Variable type
A_1	Lifetime abstainers-consumers	nominal with 2 categories
A_2	Current abstainers-consumers	nominal with 2 categories
F_1	Frequency of drinking	ordinal with 10 categories
F_1R	Number of drinking days	continuous variable
BEER_CONS	Annual beer consumption	continuous variable
WINE_CONS	Annual wine consumption	continuous variable
SPIR_CONS	Annual spirits consumption	continuous variable
ALC_CONS	Annual alcohol consumption	continuous variable
RISK_DRINK	Risky consumption level	nominal with 2 categories

2.2.4. Implementation instruction

The question referring to generic frequency of drinking is intended to capture drinking of any alcoholic beverage; that means beer, wine and spirits treated equally, even in small amounts (at least 30 millilitres of spirits or 100 millilitres of wine or 250 millilitres of beer). Sometimes respondents have a tendency to report frequency of drinking of one favourite alcoholic beverage only, or one which is considered by them as real 'alcohol', for example spirits. Interviewers should be instructed to be sensitive to this issue.

The role of the question on generic frequency of drinking is to identify current and lifetime abstainers (two last points on the frequency scale). Lifetime abstinence means that respondent have never drunk any alcoholic beverage. Current abstinence means not drinking any alcoholic beverage during the last 12 months. Interviewers should make respondents aware of this differentiation.

The average drinking frequency of each of the alcoholic beverages is reported by respondents on the frequency scale. Use of a show-card is recommended.

The average quantity drunk per day is reported by respondents using predefined units. The unit for each beverage should be common for each respondent but country-specific based on the most common glass or bottle or can. The units - for example 30 millilitre glass for spirits, or 100 millilitre glass for wine, or a pint of beer - should be printed in the answer area.

The question could be self-administrated, but taking into account the difficulties respondents experience with estimating average quantity drunk per day, a face-to-face approach is recommended. The interviewer can help the respondent to recalculate quantity into predefined units, especially in cases where respondents use a variety of glasses for various occasions.

The definition of types of alcoholic beverages used in the BSQF is as follows:

- Beer: includes all types of beer, but does not include low (less than 2%) alcohol content or alcohol free beers

- Wine: includes also champagne, sekt, prosecco, porto, sherry, vermouths, etc.

- Spirits: includes whisky, brandy, vodka, gin, palinka, liquors, shot drinks, other local specialities (more than 30% alcohol). In the case of cocktails, their alcohol component only should be reported.

The interviewer should ask first about frequency of drinking of individual beverage and then about its quantity drunk, separately for each beverge. The quantity should be reported in number of glasses or other predefined containers with standard volume provided in the questionnaire.

2.2.5. Data processing

The rates of current and life time abstainers are estimated on the basis of generic frequency question (F_1). The scale should be recoded in the following way:

- Lifetime abstainers = 11; lifetime drinkers = 1 to 10

- Current abstainers = 10 or 11; current drinkers = 1 to 9.

The algorithm of calculation of core variables related to annual alcohol consumption is as follows:

1. Recalculation of number of units into number of millilitres of each beverage

Number of units reported by respondent to be multiplied by predefined volume of a unit (separately for each beverage)

2. Recalculation of number of millilitres of each beverage into number of millilitres of 100% alcohol

Result of previous calculation to be multiplied by average alcohol content (in per cent) in a given alcoholic beverage (separately for each beverage)

3. Recalculation the of frequency of drinking into number of drinking days

Average number of drinking days in the last 12 months should be calculated using the middle points of ranges as an estimate. The following values of drinking days can be attributed to consecutive frequency categories:

Category	Range	Middle point
1) Every day	365	365
2) 5 – 6 times a week	209 - 364	285.5
3) 3 - 4 times a week	156 - 208	182
4) 1 - 2 times a week	52 - 104	78
5) 2 - 3 times a month	24 – 36	30
6) Once a month	12	12
7) 6 - 11 times a year	6 – 11	8.5
8) 2 - 5 times a year	2 – 5	3.5
9) Once a year	1	1
10) I did not drink last 12 months, but I drank earlier	0	0
11) I never drank in my life	0	0

4. Calculation of annual consumption of each alcoholic beverage in millilitres of 100% alcohol

> Separately for each beverage, the number of drinking days (result of point 3) to be multiplied by the average number of millilitres of 100% alcohol (result of point 2)

5. Calculation of total alcohol consumption in millilitres of 100% alcohol

> Annual consumption of each alcoholic beverage in millilitres of 100% alcohol (result of point 4) to be summed up

6. Identification of risky consumption level drinkers

> Annual alcohol consumption in millilitres of 100% alcohol (result of point 5) to be recoded into two categories with thresholds 9 000 millilitres or 9 litres for females and 16 000 millilitres or 16 litres for males.

2.2.6. Optional questions

The beverage-specific measurement is imprecise and possibly confusing in cultures where the standard choice of beverages goes beyond three basic categories i.e. spirits, wine and beer. To overcome this problem a national team may wish to consider inclusion of questions about an extra beverage whose share in recorded sales in terms of volume exceeds e.g. 5%. When the additional beverage is used, it should be excluded from the definition of basic types of alcoholic beverages and consequently the relevant question should be modified. For example if port wine is chosen as a extra alcoholic beverage the questions BSQ_3 and BSQ_4 should be as follows:

BSQF_3. How often did you drink wine (excluding port wine) over the past 12 months?

BSQF_4. How much did you drink on average on a day when you drank wine (excluding port wine) over the past 12 months?

The question about extra alcoholic beverage will look as follows:

BSQF_7. How often did you drink …. over the past 12 months?	BSQF_8. How much did you drink on average on a day when you drank spirits over the past 12 months?
1) Every day 2) 5 – 6 times a week 3) 3 – 4 times a week 4) 1 – 2 times a week 5) 2 – 3 times a month 6) Once a month 7) 6 – 11 times a year 8) 2 – 5 times a year 9) Once a year 10) I did not drink last 12 months, but I drank earlier 11) I never drank in my life *Name of country specific alcoholic beverage*	.... *National team should define and print here the unit of reporting e.g. 30 milliliter glass*

The use of the questions about extra alcoholic beverages does not modify the logic of calculation. Instead of calculating annual consumption of three basic alcoholic beverages, consumption of four of them should be calculated and than summed up to obtain an estimation of total annual alcohol consumption.

2.3. Context of drinking

2.3.1. Background

Drinking context seems to be an important factor in explaining the volume of alcohol consumed as well as the risk of alcohol problems. The drinking context can include: drinking with meals or without, place of drinking, type of occasion, company, time of drinking, and other components. Here a minimum cross-European set of variables is proposed consisting of drinking with meals or without, place of drinking, and company of drinking. By limiting the scope of investigation of drinking context, it was hoped to avoid overloading the questionnaire; this is especially important when considering the use of our proposal as a part of a wider population survey.

The context of drinking can be investigated through questions about the context of usual drinking occasions or about concrete drinking occasions, for instance last drinking occasion. Description of the last occasion seems to be more precise and linked to the volume consumed; however, it may not be representative of a drinking occasion for the individual drinker.

Therefore the 'usual drinking' approach is proposed. It could be better linked also to the BSQF results, because they are also based on the usual drinking pattern.

The context of drinking could be examined using a generic or beverage specific approach. Taking into account the different roles which particular alcoholic beverages play in various drinking cultures, the beverage specific approach is recommended. Moreover such an approach is more consistent with the BSQF method.

There is a wide variety in possible types of questions to be asked concerning each of the selected dimension of drinking context. Our intention was to handle these issues as simply as possible.

2.3.2. Model questions

When you drink [*name of a beverage*] do you usually drink	Beer	Wine	Spirits
CD_1 With a meal or at some other time? *(one answer only for each beverage)*			
a) drink with a meal	1	1	1
b) drink at some other time	2	2	2
c) not applicable (NA) - don't drink this beverage	0	0	0
CD_2. Where? *(one answer only for each beverage)*			
a) at home	1	1	1
b) in a restaurant	2	2	2
c) in a pub, bar, etc	3	3	3
d) outdoors	5	5	5
e) other (please describe ....)	6	6	6
f) not applicable (NA) - don't drink this beverage	0	0	0
CD_3. With whom?	Yes No NA	Yes No NA	Yes No NA
a) Alone	1 2 0	1 2 0	1 2 0
b) Family	1 2 0	1 2 0	1 2 0
c) Friends	1 2 0	1 2 0	1 2 0
d) Strangers	1 2 0	1 2 0	1 2 0

2.3.3. Core variables

The set of core variables used for analyses of context of drinking is summarised below:

Variable name	Variable label	Variable type
CD_1 _BEER	Drinking beer with meals or without	nominal with 2 categories
CD_1 _WINE	Drinking wine with meals or without	nominal with 2 categories
CD_1_SPIR	Drinking spirits with meals or without	nominal with 2 categories
CD_2 _BEER	Place of drinking beer	nominal with 6 categories
CD_2 _WINE	Place of drinking wine	nominal with 6 categories
CD_2_SPIR	Place of drinking spirits	nominal with 6 categories
CD_3 _BEER	Drinking beer company	nominal – multi-response variable
CD_3 _WINE	Drinking wine company	nominal – multi-response variable
CD_3_SPIR	Drinking spirits company	nominal – multi-response variable

2.3.4. Implementation instruction

The questions from this section should be implemented by type of alcoholic beverage; that means firstly the entire question related to beer, then to wine and then to spirits should be asked.

In the case of the first two questions (CD_1 and CD_2) only one answer per question must be selected for each alcoholic beverage. The question about company of drinking (CD_3) is a multi-response one, because the company could consist of people belonging to more than one category. Instead of a multi-choice set of responses, we ask separately about each category of drinking company with yes/no answers. The idea behind such an approach is to encourage the reconstruction of usual drinking company. The special status of solitary drinking should be noted. If the answer is yes for this category, then exclude the answer yes for each of the remaining ones.

The category not applicable/don't drink (code 0) is likely to arise not only for current abstainers but also for respondents who did not drink a given alcoholic beverage during the last 12 months.

The questions about context of drinking could be easily self-administered with extended instruction in the questionnaire for respondents.

2.3.5. Data processing

The questions CD_1 and CD_2 are simple two categorical variables for each alcoholic beverage to be computed separately.

The question about company of drinking should be coded as a set of separate dichotomous variables and then can be analyzed using multi-response procedure.

Basically, regarding questions on the context of drinking particular alcoholic beverages, cases with "0" code (not applicable) should be excluded from the analysis; that means the analysis ought to be limited to consumers of particular alcoholic beverages only.

2.4. Risky single occasion drinking

2.4.1. Background

Since average daily alcohol intake and consequently average consumption may not adequately reflect the risks associated with certain outcomes, a measure of more intensive, concentrated consumption taking place within a short time has become recognized as a critical measure of an alcohol drinking pattern. A drinking pattern which consists of consuming, on one occasion, a volume of alcohol that is likely to lead to intoxication is considered to be risky from the perspective of public health as well as public order. Such a drinking pattern, called Risky Single Occasion Drinking (RSOD), increases the risk of acute health problems, accidents, behavioural disorders, law breaking behaviours, and so on. Its frequency is one of the factors predicting prevalence of acute problems at least on the population level. (WHO 2000)

Other terms are used as alternatives to Risky Single Occasion Drinking, for example Binge Drinking, Risky Episodic Drinking, Episodic Heavy Drinking or Extreme Drinking.

RSOD is usually defined as exceeding a certain amount of alcohol on one occasion. Such a measure is defined generally as an amount which can increase blood alcohol concentration (BAC) to a level of intoxication within an occasion. The indicator used within population surveys is based on a dose of approximately 60 grams of ethanol. However, there is no agreement in Europe regarding the legally accepted BAC level, even as far as the driving rules are concerned. It is also not clear whether it should differ according to gender and over what timeframe it should be assessed. (Bloomfield, Hope, Kraus forthcoming)

The approach based on asking about concentrated consumption taking place within a short period seems to be objective, but it is not suitable to all people. There are huge individual differences in reaction to alcohol. BAC and alcohol tolerance are dependent on gender, bodyweight, drinking circumstances (duration, associated meals, accompanied behaviours), drinking biography, and so on. It could vary from time to time even for the same individual. Therefore, a threshold of the average volume of alcohol consumed on one occasion causing drunkenness can be considered to be only a very rough approximation: some part of the population could be drunk in behavioural terms below such a threshold and some part could be sober above it.

In some surveys, questions about drunkenness are used instead of questions about RSOD. However, the concept of asking directly about drunkenness is even more problematic because not only is it understood differently 'across' countries, often there is no uniform understanding as to what constitutes drunkenness 'within' countries. Moreover, we have to rely on self-assessment of the respondent which could be biased. For example, young males have a tendency to overestimate the volume of alcohol which they can consume without experiencing drunkenness symptoms. (Elekes et al. forthcoming)

Risky single occasion drinking (RSOD), which is proposed in this guideline, is defined as consumption of at least 6 standard drinks (at least 60 grams of 100% alcohol) on one

occasion. It is proposed that the frequency of RSOD be investigated using a standard frequency scale used throughout all questions on frequency of alcohol consumption.

There are basically two problems related to the RSOD question. The first one is related to the concept of a standard drink. Although nothing like that exists in European drinking cultures, some common measures for various alcoholic beverage are needed to calculate and report volume of alcohol consumed on one occasion, especially when various beverages are drunk during the same drinking episode. To answer the question about the frequency of exceeding the threshold of 60 grams of pure alcohol could be challenging for respondents, even when this threshold is formulated in terms of country specific units of particular alcoholic beverages.

The second problem is related to the concept of an 'occasion', which is difficult to define precisely. For example, six shots of vodka with work mates in a short time could constitute one occasion, as well as a three day wedding party with huge volumes of various alcoholic beverages drunk in differentiated configurations.

The idea behind using 6 units (60 grams of pure alcohol) as the threshold for asking about RSOD was that, for an average human being, it is the threshold for intoxication expressed as 0.5‰ BAC. Based on these assumptions, we can estimate average frequency of intoxication (defined as BAC higher then 0.5‰) for the whole population noting that, for some respondents, it will be an overestimation while others it will be an underestimation.

When we want to estimate the comparable BAC levels for each respondent we need to include at least gender, body weight and duration of drinking. Therefore, it is proposed that a question about bodyweight is included in the socio-demographic section of the questionnaire as well as an additional question about the usual duration of drinking 6+ drinks.

The threshold of 6 drinks on one occasion seems to be too low to identify episodes of higher intoxication e.g. BAC over 1‰. To explore the more extreme end of the distribution of

volume consumed on one occasion, the question about frequency of drinking 12+ drinks is also proposed with an additional question about the usual duration of such occasions.

Risky single occasion drinking may contribute significantly to the volume of average annual alcohol consumption. In the BSQF method respondents report this average volume in terms of dominant intake rather than as means. In other words, they report usual volume of alcohol drunk on one occasion. The extreme quantities are not included in the estimation provided by respondents, especially when binge drinking is not their dominating drinking pattern. It seems to be one of the reasons for underestimation of annual alcohol consumption in population surveys. Therefore, we can adjust average annual alcohol consumption estimated on the basis of the BSQF method using data about frequency of risky single occasion drinking.

2.4.2.   Model questions

RSOD_1. How often in the past 12 months, have you had six drinks or more on one occasion, which is [*Insert national description of 6 drinks*]?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) Never in the past 12 months

RSOD_2. During what time period (hours), would you usually drink six drinks (defined as above) on one occasion?
Please tick to the nearest hour

1) Less than 1 hour

2) 1-2 hours

3) 3-4 hours

4) 5-6 hours

5) 7-8 hours

6) 9 or more hours

RSOD_3. Of the above occasions how often in the past 12 months, have you had twelve drinks or more on one occasion, which is [*Insert national description of 12 drinks*]?

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) Never in the past 12 months

RSOD_4. During what time period (hours), would you usually drink twelve drinks (defined as above) on one occasion?
Please tick to the nearest hour

1) Less than 1 hour

2) 1-2 hours

3) 3-4 hours

4) 5-6 hours

5) 7-8 hours

6) 9 or more hours

2.4.3. Core variables

The set of core variables used for analyses of risky single occasion drinking is summarised below:

Variable name	Variable label	Variable type
RSOD_1_6U	Drinking 6+ units at least once	nominal with 2 categories
RSOD_3_12U	Drinking 12+ units at least once	nominal with 2 categories
RSOD_1	Frequency of drinking 6+ units	ordinal with 10 categories
RSOD_3	Frequency of drinking 12+ units	ordinal with 10 categories
RSOD_1R	Number of drinking occasions with 6+ units	continuous variable
RSOD_3R	Number of drinking occasions with 12+ units	continuous variable
RSOD_2R	Usual duration of drinking 6+ units	continuous variable
RSOD_4R	Usual duration of drinking 12+ units	continuous variable
BAC_6U	Average BAC after 6+ drinks	continuous variable
BAC_12U	Average BAC after 12+ drinks	continuous variable
ALC_CONS_AD	Annual alcohol consumption adjusted by RSOD	continuous variable

2.4.4. Implementation instruction

The average frequency of drinking 6+ drinks is reported by respondents on the frequency scale. Use of a show-card is recommended.

The drink should be common for each respondent based on the most common glass or bottle or can. The units , for example 30 millilitre glass for spirits or 100 millilitre glass for wine or a pint of beer, should be the basis for calculation of volume of spirits, wine and beer respectively, corresponding with 6 drinks.

The national team should enter the definition of 6 drinks in terms of amounts of beer, wine, and spirits which are equivalent to 60 grams of pure alcohol. For example: six 250 ml. glasses of beer (1.5 litre) or six 100 ml. glasses of wine (0.6 litre) or six 30 ml. glasses of spirits (180 ml.).

Sixty grams of pure alcohol equals to approximately 75 millilitres of fluid which is an equivalent of:

- 187.5 ml of 40% spirits (e.g. vodka or whisky), it may be rounded to six 30 ml glasses of spirits,

- 600 ml of 12.5% wine; which is equivalent of to six 100 ml glasses of wine,

- 1500 ml (1.5 litres) of 5% beer; which may be expressed as three 0.5 litres mugs/bottles/cans of beer.

An example of the question could be as follows: "How often in the past 12 months have you had an amount of alcohol that may equal at least three 0.5 litre bottles/glasses of beer (1.5 litres), or at least six 100 ml glasses of wine (600 ml) or six 30 ml glasses of vodka (180 ml)?

The question about frequency of having at least 12 drinks needs the same country specific modification. The research team should define and include in the question the amounts of beer, wine, and spirits which are equivalent to 120 grams or 150 millilitres of pure alcohol. For example: twelve 250 ml. glasses of beer (3 litres) or twelve 100 ml. glasses of wine (1.2 litres) or twelve 30 ml. glasses of spirits (360 ml.)

RSOD of 12+ drinks on one occasion is nested in RSOD of 6+ drinks on one occasion. That means drinking 12+ drinks is included in the previous indicator. In consequence, the frequency of drinking 12+ drinks on one occasion cannot be higher than frequency of drinking 6+ drinks on one occasion.

2.4.5. Data processing

The rates of respondents having experienced drinking 6+ drinks and 12+ drinks on one occasion over the last 12 months, are estimated on the basis of the questions about frequency of drinking 6+ drinks (RSOD_1) and 12 drinks (RSOD_3). The scale should be recoded in the following way:

- At least one occasion of 6+ drinks on one occasion (RSOD_1) = 1 to 9; else = 10

- At least one occasion of 12+ drinks on one occasion (RSOD_3) = 1 to 9; else = 10

The frequency of consuming 6+ (RSOD_1) and 12+ drinks (RSOD_3) could be converted into the number of days with two levels of risky single occasion drinking (RSOD_1R) and (RSOD_3R), respectively.

Recalculation of the frequency of drinking into an average number of drinking days in the last 12 months should be done in the same way as frequency of drinking described in paragraph 3.2.5; that means using middle points of ranges as an estimate. The following values of drinking days can be attributed to consecutive frequency categories:

Category	Range	Middle point
1) Every day	365	365
2) 5 – 6 times a week	209 - 364	285.5
3) 3 - 4 times a week	156 - 208	182
4) 1 - 2 times a week	52 - 104	78
5) 2 - 3 times a month	24 - 36	30
6) Once a month	12	12
7) 6 - 11 times a year	6 - 11	8.5
8) 2 - 5 times a year	2 - 5	3.5
9) Once a year	1	1
10) None during last 12 months	0	0

The algorithm of calculation of usual BAC achieved at thresholds 6+ drinks and 12+ drinks is as follows:

1. Conversion scale of duration of usual drinking occasion into number of hours

   The source variables RSOD_2 and RSOD_4 to be converted into RSOD_2R and RSOD_4R respectively representing number of hours, during which drinking took place:

Category of source variable	Value of target variable
1) Less than 1 hour	0.5
2) 1-2 hours	1.5
3) 3-4 hours	3.5
4) 5-6 hours	5.5
5) 7-8 hours	7.5
6) 9 or more hours	9.0
Not applicable – don't drink 6+	0.0

2. Calculation of usual level of BAC achieved when the 6+ drinks on one occasion is consumed.

Computation has to be done separately for males and females:

For males: 60 grams should be divided by the product of bodyweight in kilograms and coefficient of 0.58 minus the product of duration of drinking and 0.15‰. The result is in per mille (‰).

For females: 60 gram should be divided by product of bodyweight in kilograms and coefficient of 0.48 minus product of duration of drinking and 0.15‰. The result is in per mlle (‰).

For example 100 kg male who had 6 drinks during 2 hours would have BAC equal to:

60 grams / (0.58 * 100 kilograms) – (2 * 0.15‰) = 0.73‰

Similar calculation for an analogous female case is as follows:

60 grams / (0.48 * 100 kilograms) – (2 * 0.15‰) = 0.95‰

Adjusting annual alcohol consumption using RSOD question(s) requires adding the alcohol consumed during risky single drinking occasions to the annual alcohol consumption of each respondent who has RSOD at least once a year.

The adjustment is proposed with the conservative assumption that 6+ drinks always means only 6 drinks and 12+ drinks always means 12 drinks only.

The algorithm of computing adjusted annual alcohol consumption is as follows:

1. Calculation of the number of days with consumption of 6+ drinks on one occasion

   Number of days with 6+ drinks (RSOD_1R) minus number of days with 12+ drinks (RSOD_3R)

2. Calculation of the alcohol consumption attributed to drinking 6+ or 12+ drinks on one occasion

   For respondents having 6+ drinks but not having 12+ drinks: Number of drinking days with consumption of 6+ drinks on one occasion (RSOD_1R) multiplied by 75 millilitres.

   For respondents having 12+ drinks: Number of drinking days with consumption of 6+ drinks on one occasion, but not 12+ (result of calculation from point 1.) multiplied by 75 millilitres plus number of days with consumption of 12+ drinks on one occasion multiplied by 150 millilitres.

3. Adjustment of average annual alcohol consumption estimated using BSQF method

   For respondents who consume at least once a year 6+ drinks on one occasion (RSOD_1R > 0), the results of the previous calculation (point 2.) to be added to average annual alcohol consumption (ALC_CONS).

For example, adjusted annual alcohol consumption for a respondent having a BSQF estimate equal to 10 liters (10 000 milliliters) of 100% alcohol per year and having 6+ drinks 2-3 times a month (30 times a year) but not having 12+ drinks is equal to:

10 000 millilitres + (75 millilitres * 30) = 12 250 millilitres = 12.25 litres

A similar calculation for respondent having the same BSQF estimate and having 6+ drinks 2-3 times a month (30 times a year) and of those, 12+ drinks once a month (12 times a year), is as follows:

10 000 millilitres + (150 millilitres * 12 + 75 millilitres * (30 – 12)) = 13 150 millilitres = 13.15 litres

2.4.6. Optional questions

There are two set of questions proposed as optional ones in this section: The first set consists of questions about context of risky single occasion drinking and the second one is about drunkenness.

The context of RSOD seems to be important from the perspective of alcohol related problems. The elements of the context proposed for inclusion in the study may constitute either risk or protective factors. For example, heavy drinking of spirits, without meals, outdoors, without company or with strangers could be considered much more risky than drinking beer or wine with meals in the family circle, even if the volume of alcohol consumed is the same.
The proposed questions about context of RSOD are as follows:

RSOD_5. When you drink six drinks or more do you usually drink:

RSOD_5A. beer, wine or spirits or their combinations *(one answer only)*	
a) beer only	1
b) wine only	2
c) spirits only	3
d) combination of different alcoholic beverages (at least two)	4
e) not applicable (NA) - don't drink six drinks or more	0
RSOD_5B. With a meal or at some other time? *(one answer only)*	
a) drink with a meal	1
b) drink at some other time	2
c) not applicable - don't drink six drinks or more	0
RSOD_5C. Where? *(one answer only)*	
a) at home	1
b) in a restaurant	2
c) in a pub, bar, etc	3
d) outdoors	5
e) other (please describe ....)	6
f) not applicable (NA) - don't drink this beverage	0

RSOD_5D. With whom ?	Yes	No	NA
a) Alone	1	2	0
b) Family	1	2	0
c) Friends	1	2	0
d) Strangers	1	2	0

Risky single occasion drinking is defined on the basis of certain thresholds of levels of drinking. This is, however, of limited value as an indicator of drunkenness, due to many reasons pertaining to variations in alcohol tolerance levels. Therefore, we suggest an optional direct question about frequency of drunkenness. Additionally, it should be supplemented by a question about volume of alcohol which is usually needed to be drunk.

The questions are presented below:

DR_1. How often in the past 12 months did you drink enough to feel intoxicated or drunk – either you felt unsteady on your feet, or your vision was blurred, or your speech was slurred?

1) Every day
2) 5 – 6 times a week
3) 3 – 4 times a week
4) 1 – 2 times a week
5) 2 – 3 times a month
6) Once a month
7) 6 – 11 times a year
8) 2 – 5 times a year
9) Once a year
10) Never in the past 12 months

DR_2. How many drinks usually makes you feel intoxicated or drunk?

| | NUMBER OF DRINKS *(One drink is [National definition of drink])* |

The response scale used in this question about frequency of drunkenness is the same as used in the question about generic frequency of drinking, BSQF and frequency of RSOD.

It is important to instruct interviewers to check that respondents properly understand the behavioural symptoms of drunkenness included in the formulation of the question - which constitutes the operational definition of drunkenness.

The question about the number of drinks which usually leads to drunkenness defines individual thresholds of drunkenness and provides an opportunity to compare this approach to RSOD approach.

The National team should add to this question the definition of one drink formulated in the way described in point 2.4.4.

2.5. Adverse social consequences of own alcohol use

2.5.1. Background

The universe of alcohol related problems and consequences is broad and to some extent country-specific. The lists of problems covered by population surveys vary from survey to survey. The distinction between the long term and acute consequences of drinking is very rarely made. (Sierosławski, Foster, Moskalewicz forthcoming) The selection of problems to be covered by European population surveys is always a challenge.

The question proposed in this guideline consists of 7 items which capture a variety of alcohol related problems experienced by an individual drinker. The selection of problems excludes types of alcohol-related harm that can be measured with aggregated statistics. The list of items is rather short to avoid overloading of the questionnaire.

Differentiation between incidental problems (experienced only once) and problems experienced more than once is proposed.

All items describe problems directly linked to alcohol use, so there is no need to calculate alcohol attributable risk on the basis of the results.

The attribution of harm to alcohol is a matter of debate as far as social harm questions in population survey are concerned. There are two approaches possible.

The first approach which can be used to measure attributable risk is to ask about a problem without specifying its relation to alcohol and then at the analytical level to conclude what is alcohol related. (Room 2000) An example of such an approach could be to ask for an assessment of home-life or marriage and then look at how it is linked to the level of alcohol consumption, binge drinking or other indicators of the respondent's alcohol consumption. The disadvantage of such an approach is the problem of the time sequence of alcohol consumption as the risk factor and the occurrence of alcohol-related problems as the outcome. Alcohol consumption should precede the occurrence of problems. However, usually surveys cover the same period for both variables (eg. in last 12 months).

This guideline suggests a simpler approach consisting of measurement of alcohol consumption as the risk factor already explicitly associated with the outcome. In other words, the question is about the harm which has occurred because of the presence of alcohol or in a context of alcohol use. For example we ask: "Have you felt your drinking harmed your home-life or marriage?" In that way, we shift the responsibility of assessing alcohol attribution or even causality on to the respondent. This may lead to a conservative but more reliable estimate of a prevalence of alcohol-related problems.

2.5.2.   Model questions

How many times <u>during the past 12 months</u>:	No, never	Yes, once	Yes, more than once
ASC_1. Have you felt your drinking harmed your home-life or marriage?	0	1	2
ASC_2. Have you felt that your drinking harmed your friendships or social life?	0	1	2
ASC_3. Have you felt that your drinking harmed your health?	0	1	2
ASC_4. Have you felt your drinking harmed your work or studies? (like missing work/school, not doing your work/studies well or losing your job/ dropping out of school)	0	1	2
ASC_5. Have you felt that your drinking harmed your finances?	0	1	2
ASC_6. Have you got into a fight when you've been drinking or right after drinking?	0	1	2
ASC_7. Have you been arrested or stopped by the police because of drunk driving or drunken behaviour?	0	1	2

2.5.3. Core variables

The set of original core variables used for the analysis of adverse social consequences of own alcohol use is summarised below:

Variable name	Variable label	Variable type
ASC_1	Harmed home-life or marriage because of drinking	ordinal with 3 categories
ASC_2	Harmed friendships or social life because of drinking	ordinal with 3 categories
ASC_3	Harmed health because of drinking	ordinal with 3 categories
ASC_4	Harmed work or studies because of drinking	ordinal with 3 categories
ASC_5	Harmed finances because of drinking	ordinal with 3 categories
ASC_6	Got into a fight because of drinking	ordinal with 3 categories
ASC_7	Arrested or stopped by the police because of drinking	ordinal with 3 categories

The set of new core variables is as follows:

ASC_1r	Harmed home-life or marriage because of drinking	nominal with 2 categories
ASC_2r	Harmed friendships or social life because of drinking	nominal with 2 categories
ASC_3r	Harmed health because of drinking	nominal with 2 categories
ASC_4r	Harmed work or studies because of drinking	nominal with 2 categories
ASC_5r	Harmed finances because of drinking	nominal with 2 categories
ASC_6r	Got into a fight because of drinking	nominal with 2 categories
ASC_7r	Arrested or stopped by the police because of drinking	nominal with 2 categories
ASC_1_7	Alcohol related problems	nominal with 2 categories

2.5.4. Implementation instruction

The question consists of 7 items which should be responded to separately on the scale containing 3 categories. The show-card could be used. The question could be easily self-administered.

The questions about experiences with alcohol related problems are private and touching behaviors not always socially accepted, hence interviewers should be carefully instructed to be sensitive to this issue.

This section would be easy to implement using a self-completion approach.

2.5.5. Data processing

Simple frequency distribution will provide information about the prevalence of seven major alcohol related problems for an individual drinker, including their intensity. One can also obtain a simpler or more condensed picture of the epidemiology of these problems.

The seven variables describing alcohol related problems (ASC_1 to ASC_7) can be recoded into 7 variables with yes/no categories (ASC_1r to ASC_7r). The new variables describe experiences with each problem regardless of the intensity.

Then a new variable (ASC_1_7) could be created summarizing the existence or not of alcohol related problems. Respondents having "no" responses to all 7 items (ASC_1r to ASC_7r) should be assigned to a "no" category, and respondents having at least one "yes" response should be assigned to a "yes" category. This variable will distinguish between respondents without any alcohol related problems and those experiencing adverse drinking consequences (at least one problem, and at least once).

2.6. Alcohol abuse and dependency

2.6.1. Background

Measures of alcohol dependence and abuse have been developed mainly in psychiatric, epidemiologic and public health research. Some work has been done in sociological surveys as well. The development of diagnostic criteria and corresponding instruments to operationalise these criteria is still a matter of debate.

Out of many instruments identified in the review of population surveys, the Composite International Diagnostic Interview (CIDI) and the Alcohol Use Disorders Identification Test (AUDIT) have been used for international, comparative purposes. The Rapid Alcohol Problem Screen (RAPS) is a shorter instrument focused on special subsets of the general population.

The AUDIT was developed by the World Health Organization (WHO) as a simple method of screening for excessive drinking and to assist in brief assessment. AUDIT could be used to identify persons with hazardous and harmful drinking patterns. (Babor et al. 2001)

The CIDI is a comprehensive, fully-structured interview designed to be used by trained lay interviewers for the assessment of mental disorders according to the definitions and criteria of DSM-IV. (Robins et al. 1989) CIDI includes a section focused on alcohol related disorders. It is intended for use in epidemiological and cross-cultural studies as well as for clinical purposes.

RAPS is a short – four item screening instrument focused on special subsets of the general population. It was developed to identify quickly problem drinkers among emergency room patients. This tool has been applied in international research and has shown promising results.(Cherpitel 2000).

The RAPS has shown good psychometric properties and has been successfully used in a series of general population emergency room studies in various countries ranging from North and Latin America, Europe, Asia and Africa. In its international application, the RAPS has demonstrated higher sensitivity and specificity in relation to a measure of tolerance in those countries with more problematic drinking cultures (i.e., where alcohol is not well integrated into the culture). This screening instrument is short with simple items, which can be easily implemented in population surveys. In the original RAPS, only one out of four positive answers is enough to identify alcohol dependence. (Cherpitel 2000) The test of RAPS against CIDI as the gold standard, which was undertaken using SMART pilot survey data, shows that the threshold of two positive answers is more indicative for alcohol dependence. Nevertheless, if the aim of the study is to identify alcohol dependent individuals, CIDI seems to be more appropriate.

2.6.2. Model questions

During the past 12 months:

	Yes	No
RAPS_1. Have you had a feeling of guilt or remorse after drinking?	1	2
RAPS_2. Have you had a friend or family member tell you about things you said or did while you were drinking that you did not remember?	1	2
RAPS_3. Have you failed to do what was normally expected from you because of drinking?	1	2
RAPS_4. Do you sometimes take a drink in the morning when you first get up?	1	2

2.6.3. Core variables

There is only one core variable in this section.

Variable name	Variable label	Variable type
RAPS_2PLUS	Positive result of RAPS 2+	nominal with 2 categories

2.6.4. Implementation instruction

The RAPS scale consists of 4 items with yes/no answers. The question could be easily self-administrated.

The questions about experiences with alcohol related problems are private and touching behaviours which are not socially acceptable; hence interviewers should be carefully instructed to be sensitive to this issue.

2.6.5. Data processing

Four variables describing items of RAPS scale (RAPS_1 to RAPS _4) should be integrated into one variable RAPS_2PLUS).

The new variable should be computing in the following way:
Respondents having at least two "yes" responses to all items (RAPS_1 to RAPS _4) should be assigned to a "yes" category, and respondents having less than two "yes" responses should

be assigned to a "no" category. This variable makes a distinction between respondents likely to be alcohol dependent and those who are probably not or to have problematic pattern of drinking..

2.6.6. Optional questions

CIDI could be proposed as an optional question. The CIDI is considered to be a gold standard for identification of alcohol dependent individuals but it is rather lengthy. The CIDI comprehensively covers both dependence and abuse symptoms as determined by ICD and DSM criteria.

The question containing CIDI items is presented below:

The next questions are about problems you may have had because of drinking <u>during the past 12 months</u>.

	No	Yes
DSM_1. During the past 12 months, did you need to drink a larger amount of alcohol to get an effect, or did you find that you could no longer get a "buzz" or a high on the amount you used to drink?	1	2
DSM_2. Did you have times during the past 12 months when you stopped, cut down, or went without drinking and then experienced withdrawal symptoms like fatigue, headaches, diarrhoea, the shakes, or emotional problems?	1	2
DSM_3. Did you have times during the past 12 months when you took a drink to keep from having problems like these?	1	2
DSM_4. Did you have times during the past 12 months when you started drinking even though you promised yourself you wouldn't, or when you drank a lot more than you intended?	1	2
DSM_5. Were there ever times during the past 12 months when you drank more frequently or for more days in a row than you intended?	1	2
DSM_6. Did you have times during the past 12 months when you started drinking and became drunk when you didn't want to?	1	2
DSM_7. Were there times during the past 12 months when you tried to stop or cut down on your drinking and found that you were not able to do so?	1	2
DSM_8. Did you have periods during the past 12 months of several days or more when you spent so much time drinking or recovering from the effects of alcohol that you had little time for anything else?	1	2
DSM_9. Did you have a time during the past 12 months when you gave up or greatly reduced important activities because of your drinking – like sports, work, or seeing friends and family?	1	2
DSM_10. During the past 12 months, did you continue to drink when you knew you had a serious physical or emotional problem that might have been caused by or made worse by drinking?	1	2

The ten items of the scale should be recoded into seven diagnostic criteria of alcohol dependence implemented in the DSM-IV. It is to be done in following way:

1. "Tolerance" is represented by item 1 (DSM_1)
2. "Withdrawal" is a composite of items 2 and 3 (DSM_2 or DSM_3)
3. "Quit, control" is a composite of items 4, 6 and 7 (DSM_4 or DSM_6 or DSM_7)
4. "Larger, longer" is represented by item 5 (DSM_5)
5. "Much time spent" is represented by item 8 (DSM_8)
6. "Activities given up" is represented by item 9 (DSM_9)
7. "Use despite problems" is represented by item 10 (DSM_10).

In criteria 2 and 3 which involve more than one item, the result is positive even if one item is confirmed. A clinical diagnosis of alcohol dependence requires confirmation for at least three diagnostic criteria. (American Psychiatric Association 2000)

2.7. Unrecorded alcohol supply

2.7.1.   Background

In most EU countries, official alcohol consumption figures are usually good indicators of the total amount of alcoholic beverages that have been drunk in the country. In some of these countries, recorded alcohol consumption figures may, however, be misleading because of the amount of unrecorded alcohol consumption.

In broad terms, recorded alcohol consumption can be characterized as the amount of alcoholic beverages sold to consumers through legal retail outlets in a country, or as the amount of legal commercial alcoholic beverages consumed by the inhabitants of that country. Consequently, unrecorded alcohol consumption can be characterized as the amount of alcohol left out of the statistics. However, this is not necessarily true anymore as in many countries official consumption statistics nowadays also include on estimate of the amount of travellers' alcohol imports and privately home-made alcohol.

In addition to being a matter of statistical accuracy, unrecorded alcohol also plays another important part in the alcohol field. Like recorded alcohol, unrecorded alcohol, partly legal and partly illegal, is also bound to basic economic laws, and there is often an interplay between different categories of recorded and unrecorded alcohol consumption. For instance, it is clear that the more travellers take alcoholic beverages home with them when returning from abroad, the less alcoholic beverages they buy from domestic sources. To take another example, a growing alcohol black market means decreases in recorded alcohol consumption and lost taxes for the state.

Estimates of separate categories of unrecorded alcohol may also be important in their own right. The quantities of alcoholic beverages that are imported legally or illegally by travellers might, for instance, in some countries, or in some periods, reduce government's alcohol tax revenues considerably, and in order to adjust taxation to an optimal level, reliable estimates of this unrecorded import are necessary. It is also helpful for police and customs officials to have reliable estimates of the magnitude of illegal production and import of alcoholic beverages in order to allocate their control resources in an optimal way.

There are two major sources of unrecorded alcohol supply. One source is travellers' private imports which are mostly legal within the EU unless imported for commercial purposes. Another source is less legitimate and mostly consists of unrecorded production and smuggling. According to findings from the pilot study, these sources may be differently perceived in different cultures. In some of them, unrecorded alcohol meant wine or fruit brandy received directly from neighbour farmers or produced by a respondent, in other instances it meant illicit moonshine, smuggled stuff or even non-beverage alcohol. Some respondents regarded it as more or less normal, decent behaviour; some understood it as criminal activity undertaken by marginalised ethnic or similar populations.

As respondents in all SMART countries admitted that they had acquired alcoholic beverages outside the regular market, it is suggested that two sets of questions on unrecorded supply are included; these were pilot-tested in the SMART study and proved to work well in the majority of participating countries:

- set of questions to estimate the amount of alcohol being brought from other countries by individual travellers,

- set of questions to estimate the amount of alcohol being acquired outside the regular market.

As earlier questions on alcohol consumption covered both recorded and unrecorded consumption, these sets of questions are not intended to correct individual consumption figures. They are, however, important in assessing what proportion of overall consumption comes from recorded sources. Moreover, they offer an opportunity to calculate the so called coverage rate, in other words, to assess what proportion of the overall sales was covered by the survey data.

2.7.2. Model questions

Model questions on travellers' imports

UP_1. During the past 12 months, have you travelled to another country?

    1) yes   2) no

UP_2. How many times did you bring spirits (e.g. vodka, gin, whisky, brandy) back with you from abroad during the past 12 months?
1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought spirits back with me in the last 12 months

UP_3. How much spirits did you bring back with you from abroad in total during the past 12 months?

Please put number of litres   [   ]

UP_4. How many times did you bring wine back with you from abroad during the past 12 months?
1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought wine back with me in the last 12 months

UP_5. How much wine did you bring back with you from abroad in total during the past 12 months?

Please put number of litres   [   ]

UP_6. How many times did you bring beer back with you from abroad during the past 12 months?
1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought beer back with me in the last 12 months

UP_7. How much beer did you bring back with you from abroad in total during the past 12 months?

Please put number of litres   [   ]

Model question for alcohol acquired outside the regular market

How many times did you acquire particular alcoholic beverages outside of the regular market (e.g. home made, smuggled, purchased directly from farmers or other producers and produced by yourself) over the past 12 months? How much of the particular alcohol beverages did you acquire?

UP_8. How many times did you bring spirits (e.g. vodka, gin, whisky, brandy) back with you from abroad during the past 12 months? 1) once 2) 2 times 3) 3 - 5 times 4) 6 - 9 times 5) 10 - 19 times 6) 20 - 39 times 7) 40 times or more 0) I've not acquired spirit outside of the regular market during the past 12 months	UP_9. How much spirits in total did you acquire outside of the regular market during the past 12 months? Please put number of litres [____]
UP_10. How many times did you acquire wine outside of the regular market during the past 12 months? 1) once 2) 2 times 3) 3 - 5 times 4) 6 - 9 times 5) 10 - 19 times 6) 20 - 39 times 7) 40 times or more 0) I've not acquired wine outside of the regular market during the past 12 months	UP_11. How much wine in total did you acquire outside of the regular market during the past 12 months? Please put number of litres [____]
UP_12. How many times did you acquire beer outside of the regular market during the past 12 months? 1) once 2) 2 times 3) 3 - 5 times 4) 6 - 9 times 5) 10 - 19 times 6) 20 - 39 times 7) 40 times or more 0) I've not acquired beer outside of the regular market during the past 12 months	UP_13. How much beer in total did you acquire outside of the regular market during the past 12 months? Please put number of litres [____]

2.7.3. Core variables

Variable name	Variable label	Variable type
UP_IMP_SPIR	Volume of spirit imported	continuous variable
UP_ IMP_WINE	Volume of wine imported	continuous variable
UP_ IMP_BEER	Volume of beer imported	continuous variable
UP_ IMP_ALC	Volume of 100% alcohol imported	continuous variable
UP_ACQ_SPIR	Volume of spirit acquired	continuous variable
UP_ ACQ _WINE	Volume of wine acquired outside of regular market	continuous variable
UP_ ACQ _BEER	Volume of beer acquired outside of regular market	continuous variable
UP_ ACQ _ALC	Volume of 100% alcohol acquired outside of regular market	continuous variable
UP_ UNR _ALC	Volume of unrecorded 100% alcohol	continuous variable

2.7.4. Implementation instruction

The first question as regards unrecorded supply is a filter question to ascertain whether a respondent travelled abroad last year. If not, the set of questions on unrecorded imports is skipped.

Both sets of questions are quite similar to the earlier questions on alcohol consumption. The respondents are asked to assess frequency of bringing alcohol from abroad, then of acquiring alcohol outside a the regular market during the past 12 months, and then finally to estimate volumes for each beverage. The beverage specific approach is applied which means that questions on each of the three major types of alcoholic beverages (spirits, wine and beer) have to be consecutively answered.

Show cards to assess frequency are recommended, in particular because frequency scales, unlike frequency of consumption questions, consist of ranges of times per year. Also volumes of alcohol should be reported in litres (or pints or gallons in the UK).

Similar to questions on consumption, these questions should be asked "in rows", which means that the first question is about frequency of acquiring the individual beverage and then about

its volume, e.g. the first question is on the frequency of bringing spirits from abroad and then about volume; the next two questions are about wine and finally about beer.

2.7.5. Data processing

The first step to calculate the amount of individual beverages is to convert the frequency scale into an annual number of times. The following conversions are suggested:

Category	Middle point
1) once	1
2) 2 times	2
3) 3 - 5 times	4
4) 6 - 9 times	7.5
5) 10 – 19 times	14.5
6) 20 – 39 times	29.5
7) 40 times or more	202.5

The next step is to multiply the number of times by volume of each beverage to estimate annual volume of spirits, wine and beer. E.g. if a respondent reported that s/he brought whisky from abroad 6-9 times in the last twelve months and each time brought back around two litres of whisky, a simple algorithm is to be applied:

7.5 times a year multiplied by 2 litres equals 15 litres

To calculate a total volume of unrecorded imports, the volumes of each beverage should be converted to 100% alcohol and then summed up. A similar procedure is to be applied to calculate the volume of alcohol acquired outside of the regular market.

To estimate what proportion of overall alcohol consumption comes from unrecorded sources, an aggregate level computing is suggested:
1. to calculate the overall volume of unrecorded alcohol (UP_ UNR _ALC) add unrecorded imports (UP_ IMP_ALC) and alcohol from domestic unrecorded sources (UP_ ACQ _ALC) reported by all respondents

2. to calculate the overall volume of alcohol consumed in the sample, multiply the mean annual consumption in the sample (ALC_CONS – 2.2.5) by the number of respondents

3. to divide the overall volume of unrecorded alcohol (point 1) by the overall alcohol consumption of the sample under study (point 2)

As it has already been noted in the background section, information on unrecorded supply can be used to adjust the so called coverage rate which is the proportion or percentage of total alcohol consumption estimated from the sales or other statistics identified or covered in the sample. The simple way to calculate it is to deduct the overall volume of unrecorded alcohol (point 1) from the overall volume of alcohol consumed in the sample (point 2) and then to divide the result again by the number of respondents to calculate the mean recorded consumption for the sample.

This can be compared with the mean alcohol consumption estimated from aggregate statistics (usually from sales statistics) to obtain the coverage rate. It has to be remembered that mean alcohol consumption from the aggregate statistics, which is usually presented as per capita or per population aged 15+, should be re-calculated for the population of the same age as the sample (e.g. 18+).

2.7.6. Optional question(s)

For those countries where there is a beverage which constitutes a substantial part of unrecorded supply but does not belong to the one of three major categories of alcoholic beverages, an additional set of questions asking about that specific beverage can be considered.

UP_14. How many times did you acquire ….. outside of the regular market during the past 12 months?	UP_15. How much …… in total did you acquire outside of the regular market during the past 12 months?
1) once 2) 2 times 3) 3 - 5 times 4) 6 - 9 times 5) 10 - 19 times 6) 20 - 39 times 7) 40 times or more 0) I've not acquired …… outside of the regular market during the past 12 months	Please put number of litres

Name of country specific alcoholic beverage

2.8. Harm from others

2.8.1. Background

For decades drinking surveys were pre-occupied with measuring alcohol consumption and its association with individual problems suffered by a drinker. Their major focus was on health problems, mainly symptoms of dependence and abuse. Numerous instruments were designed and applied not only to screen for individuals likely to need intervention but also to make an epidemiological assessment about the prevalence of alcohol-related disorders.

A question about alcohol harm suffered due to somebody's else drinking (which is often called harm from others or from a third party) has become an issue only in the late 1980's and has found its legitimate place in alcohol surveys even more recently. (Bloomfield K., Hope A., Kraus forthcoming) In addition to genuine interest, research involvement in policy debate was an important factor in broadening the scope of research to include harm from others. Alcohol researchers realizing the success of the concept of "passive smoking" in tobacco policy, searched for its equivalent in the alcohol field. Since health statistics offer very little if any evidence of the impact of others drinking on health, interview survey methodology appeared to be the most suitable approach for investigating this new dimension..

The respondents are asked about the consequences of others' drinking on them and public health and welfare.. The list of possible harms may be long and their gravity varies from public nuisances like littering or urinating in public places, noisy behaviour that may interrupt respondents' sleep to property damage, accident or physical abuse. The frequency of

experiencing these harms is inversely related to their gravity; the more serious harms are less likely to be experienced.

The distinction between harm caused by a drinker from the individual's close milieu, including a family member, and harm from strangers is of crucial importance from the policy perspective. The problems and the solutions which need to be applied differ in the case of a trouble-maker who is close to you compared with a stranger or groups of strangers.

Following this distinction, this questionnaire proposes a couple of questions to ascertain whether a respondent has known a heavy drinker in the past 12 months and whether this heavy drinking person(s) had a negative effect on the respondent's life. These questions are to assess the proportion of the population affected by the drinking of people known to them. Both questions are taken from an Australian study (Laslett at al. 2010) and were piloted in the course of the SMART project and are recommended as standard questions.

The researchers, however, may wish to explore further this dimension of harm from others. To assist further exploration three more optional questions are suggested: one to identify the type of relationship between a respondent and heavy drinker affecting his life, then the question to measure intensity of a cumulative negative impact of all heavy drinkers known to respondent and finally the question which specifically asks about negative impact of the respondent's 'other' e.g. his/her co-worker who is the heavy drinker. Certainly, questions similar to this one on problems caused by the co-worker's drinking may be developed in regard to other domains.

Another set of questions proposed as a standard for comparative purposes specifies a number of harms which can be caused either by those known to the respondent or by strangers. The minimum list of harms consists of nine items which cover major dimensions of harm from others including family and community setting, as well as a wide range of levels of seriousness from just being annoyed by drunken people to being physically abused and being involved in a traffic accident caused by a drunken person.

2.8.2. Model questions on heavy drinkers in your life

The following questions are related to people you may know whom you consider to be fairly heavy drinkers or someone who drinks a lot sometimes.

	No	Yes, please specify *(put the number of persons)*
HD_1. Thinking about the last 12 months, do you know some people who you consider to be fairly heavy drinkers or someone who drinks a lot sometimes?	0	…….
HD_2. Did their drinking negatively affect you in some way in the last 12 months?	0	……..

Core variables

Variable name	Variable label	Variable type
HD_1	Number of known heavy drinkers	continuous variable
HD_2	Number of known heavy drinkers who affect	continuous variable
HD_1R	Knowing heavy drinkers	nominal with 2 categories
HD_2R	Affected by known heavy drinkers	nominal with 2 categories

2.8.3. Implementation instruction

Both questions, on whether heavy drinkers are known to the respondent and whether they have affected negatively the respondent's life in the past 12 month, are relatively easy as they require dichotomous "yes" or "no" answers. To explore this issue more, the option of a more detailed assessment (how many heavy drinkers are known, and how many of them affect negatively the respondent's life) may be considered.

The concept of heavy drinker is not translatable into a number of languages and therefore national equivalents should be developed. If a respondent asks for an explanation of this concept, interviewers should suggest using the respondent's own definition: "please respond as you understand it" or "please use your own definition".

2.8.4. Data processing

Simple frequency distribution of responses may be sufficient to realise what proportion of respondents know heavy drinkers; this roughly reflects individual and population level exposure to alcohol harm by others. The proportion of those negatively affected by heavy drinkers has to be calculated for the whole sample as well as for those who reported knowing a heavy drinker.

2.8.5. Model question on types of harm from others

Because of someone else's drinking, how many times in the <u>past 12 months</u> have you. . . .

	No	Yes, please specify *(put the number of times)*
COM_1. Been kept awake at night or disturbed?	0	
COM_2. Been verbally abused?	0	
COM_3. Been physically abused?	0	
COM_4. Been involved in a serious argument?	0	
COM_5. Felt unsafe in public places, including public transportation?	0	
COM_6. Gone out of your way to avoid drunk people or places where drinkers are known to hang out?	0	
COM_7. Been annoyed by people vomiting, urinating or littering when they have been drinking?	0	
COM_8. Experienced trouble because of drinkers at a licensed venue?	0	
COM_9. Been involved in a traffic accident because of someone's drinking?	0	

2.8.6. Core variables

Variable name	Variable label	Variable type
COM_1	Been kept awake at night	continuous variable
COM_2	Been verbally abused	continuous variable
COM_3	Been physically abused	continuous variable
COM_4	Been involved in a serious argument	continuous variable
COM_5	Felt unsafe in public places	continuous variable
COM_6	Gone out of your way to avoid drunk people	continuous variable
COM_7	Been annoyed	continuous variable
COM_8	Experienced trouble at a licensed venue	continuous variable
COM_9	Been involved in a traffic accident	continuous variable

Variable name	Variable label	Variable type
COM_1_R	Been kept awake at night - grouped	ordinal with 4 categories
COM_2_R	Been verbally abused - grouped	ordinal with 4 categories
COM_3_R	Been physically abused - grouped	ordinal with 4 categories
COM_4_R	Been involved in a serious argument - grouped	ordinal with 4 categories
COM_5_R	Felt unsafe in public places - grouped	ordinal with 4 categories
COM_6_R	Gone out of your way to avoid drunk people - grouped	ordinal with 4 categories
COM_7_R	Been annoyed - grouped	ordinal with 4 categories
COM_8_R	Experienced trouble at a licensed venue - grouped	ordinal with 4 categories
COM_9_R	Been involved in a traffic accident - grouped	ordinal with 4 categories

2.8.7.   Implementation instruction

This series of nine questions about different forms of harm from others is relatively easy to implement as basically it   consists of dichotomous "yes" or "no" answers. However, an affirmative answer requires the respondent to specify how many times that event (problem) took place in the last 12 months.

2.8.8.   Data processing

Simple frequency distribution of responses may be sufficient to provide information about the proportion of respondents who have experienced different forms of harms from third parties ranging from being annoyed by misbehaving drinkers to being involved in a traffic accident. According to findings from our pilot study, the distribution of affirmative responses is heavily skewed towards lower numbers of experiences and therefore it is not reasonable to calculate any measures of central tendency, especially means. Instead the following re-coding is suggested:

Category of source variable	Value of target variable	Label of target variable
0	0	no
1-2	1	once or twice
3-5	2	several times
6-12	3	approx. every month or every second month
13+	4	more frequently than monthly

2.8.9.   Optional questions

HD_3. What are relationships to you of people whose drinking negatively affected you in some way in the past 12 months ?

	Yes	No	Not applicable
a) Household member	1	2	0
b) Family member not in household	1	2	0
c) Co-worker	1	2	0
d) Friend	1	2	0
e) Others known to you, please specify …………………………………………	1	2	0

HD_3A. How much these person/persons' drinking affected you negatively in the past 12 months? Were you affected a lot or just a little?

1)   affected a lot
2)   affected a little

This section relates to co-workers (paid workers or volunteers) whom you consider to be fairly heavy drinkers or someone who drinks a lot sometimes (for respondents who select answer "yes" for question HD_3 point c).

HD_4. Because of your co-worker(s) drinking, how many times in the <u>past 12 months</u> . . .

		No	Yes, please specify *(put the number of times)*
HD_4a	Has your productivity at work been reduced?	0	…….
HD_4b	Have you had to work extra hours?	0	…….
HD_4c	Were you involved in an accident or a close call at work?	0	…….

2.9. Attitudes towards alcohol policy

Thanks to an increase in research on alcohol policy and its effects, it is well known which policies work and which do not, which are relatively cheap and which are costly (Anderson et al., 2009a; Babor et al., 2010). In a nutshell, it can be argued that policies which work, including the imposition of high taxes and regulating the physical availability of alcohol require a substantial dose of State intervention and as such they are not keenly implemented in the current world, characterised by deregulation of economic activities. Economic freedoms for alcohol operators often have priority over public health interest. Substantial proportions of citizens living in societies with a high level of deregulation are not very likely to support any restrictions on alcohol availability; nor will they accept an increase in prices.

Often alcohol control measures are recommended as purely technical solutions which once introduced ameliorate our lives thanks to less drinking and less harm associated with drinking (Anderson et al 2009). The reluctance of national governments to introduce these measures are attributed to the economic interests of the private alcohol sector on the one hand, and budget revenues on the other. Short-term economic interests seem to prevail over public health interests and over long-term economic gains. The level of public support is considered of secondary importance in this crucial battle between economic and public health interests. It is believed that the introduction of control measures will be followed by increased public support rather than the other way round. Thus priority should be given to convince politicians as much as policy-makers to initiate a change (Anderson & Baumberg, 2006).

Public support is rarely considered in terms of the behaviour of individuals who can either quietly obey imposed restrictions or find ways to overcome them by using a great variety of semi-legal or illegal methods. This approach tends to neglect the painful experiences of American prohibition of the 1920s (Warburton, 1932) or Soviet anti-alcohol policy in the mid-1980s (Karlsson et al. forthcoming) which were effectively resisted due to low, if any, public support.

Despite initial gains in public health and order, both these severe anti-alcohol crusades produced a number of unintended side-effects including expansion of the black market, organised crime and poisonings with non-beverage alcohol (Shkolnikov & Nemtsov, 1997). The long terms effects were even more harmful as organised crime was sustained for decades to come and the idea of alcohol control completely lost its credibility. As a result, a large increase in alcohol consumption emerged and lasted for a long time.

From the perspective of those experiences, undertaking studies of public support for alcohol policies are of extreme importance.

There is a long tradition of studies on attitudes towards alcohol policies, first of all in Nordic countries and North America. (Ahlström et al. 1997; Greenfield, Johnson, Giesbrecht 2004; Giesbrecht, Greenfield 1999) Nevertheless, the last decades have witnessed an expansion of these studies, including the recent *Eurobarometer* editions. Most of these studies, however, explore opinions on particular policy measures rather than attitudes towards alcohol policy.

This questionnaire suggests a list of questions on opinions for alcohol policy ranging from restrictions on advertising, access and taxation to more ideological questions on the status of alcohol as a commodity and the extent of State intervention in alcohol prevention. Individual items were taken from existing sources including recent *Eurobarometer* surveys in EU countries (Special Eurobarometer 331, 2010). Factor analysis of the data from the pilot study revealed three factors which can then be translated to attitudes towards alcohol policy:

- Support for liberal alcohol policies based on two principles that alcohol is a commodity as any other and that individuals are responsible enough to protect themselves from alcohol-related harm caused by their drinking
- Support for alcohol control policies, including State intervention, imposition of high taxes, regulating physical availability and restrictions on advertising
- Support for policies against drunken driving

2.9.1. Model questions on attitudes towards alcohol policies

I will read you out some statements on attitudes to alcohol policy. For each statement tell me if you strongly agree, somewhat agree, somewhat disagree or strongly disagree:

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Don't know
AP_1. Advertising of alcohol should be restricted	1	2	3	4	9
AP_2. The blood alcohol limit for drivers should be kept as low as possible	1	2	3	4	9
AP_3. Breath testing of drivers should be widely enforced all year round	1	2	3	4	9
AP_4. Number of alcohol outlets should be decreased if people drink too much	1	2	3	4	9
AP_5. Alcohol taxes should be increased if people drink too much	1	2	3	4	9
AP_6. Alcohol is commodity like any other and does not require any special restrictions	1	2	3	4	9
AP_7. People are responsible enough to protect themselves from alcohol-related harm caused by their drinking	1	2	3	4	9
AP_8. Public authorities have the responsibility to act to keep people from being harmed by their own drinking	1	2	3	4	9

2.9.2. Core variables

Variable name	Variable label	Variable type
AP_1	Restricted advertising of alcohol	ordinal with 4 categories + "Don't know"
AP_2	Blood alcohol limit for drivers	ordinal with 4 categories + "Don't know"
AP_3	Random breath testing of drivers	ordinal with 4 categories + "Don't know"
AP_4	Decreasing number of alcohol outlets	ordinal with 4 categories + "Don't know"
AP_5	Increase of alcohol taxes	ordinal with 4 categories + "Don't know"
AP_6	Alcohol is commodity as any other	ordinal with 4 categories + "Don't know"
AP_7	Individuals are responsible enough	ordinal with 4 categories + "Don't know"
AP_8	Public authorities have to intervene	ordinal with 4 categories + "Don't know"

2.9.3. Implementation instruction

According to the pilot study all questions worked well and were understood by the respondents. Nevertheless, since some questions are composed of two parts depending on each other e.g. "alcohol taxes should be increased if people drink too much", interviewers should read each question carefully and allow a response only after the question is completed. If a respondent gives his response before the question is finished, the question should be read again from the very beginning.

Since a four-point response scale is applied a show card is advisable.

2.9.4. Data processing

This section intends to explore two issues: whether a respondent has any opinion on different alcohol policy options and what is the level of his support for each option. To deal with the first issue, a percentage of "don't knows" has to be calculated. A higher percentage of "don't knows" suggests that this particular policy option is not of interest and perhaps requires more effort to become a public issue. After analysing "don't knows", they should be re-coded to

missing values and the remaining distributions of "agrees" or "disagrees" may become a focus of further analyses.

As the response scale cannot be recognised as an interval scale due to uneven distances between individual responses, two basic options can be considered:

- to calculate median values for each policy option,
- to add "strongly agree" and "somehow agree" on the one side and to add "strongly disagree" and "somewhat disagree" on the other.

Both calculations may be used to claim whether each policy option is supported by a significant fraction of the population or not. Such information may contribute substantially to public debate and facilitate the political process.

As the results of the pilot study reveal, the opinions in point constitute a three dimensional space and therefore this section may be utilised for a more ambitious purpose to measure attitudes towards alcohol policies, in other words to measure readiness to support either restrictive or liberal alcohol policies. To this end, a factor analysis is recommended.

3. The way forward

The questionnaire which has been developed within the SMART study represents a collaborative effort to propose a European standardized instrument for measuring alcohol consumption, including unrecorded alcohol, binge drinking, alcohol-related problems, including harm from others as well as attitudes towards alcohol policy in population interview surveys. This questionnaire has been pilot-tested in ten EU countries representing different drinking cultures, various political traditions and different levels of economic development. It is hoped that the standardized survey instrument will facilitate monitoring of implementation of the EU alcohol strategy and will contribute to the harmonization of efforts to reduce harm associated with alcohol drinking in all countries involved.

In the course of the collaborative project it was found that a common, standardized drinking survey instrument is possible and it is feasible to implement it in a variety of different EU countries. Nevertheless, the questionnaire requires further efforts if it is to be adopted as a

standard instrument offering better, comparative understanding of alcohol and related problems across Europe.

First of all, there is a need to confirm the results of the pilot-testing conducted on relatively small, purposive samples in larger, preferably random samples of inhabitants of different EU countries.

Of major importance is the need to agree upon a common methodology of estimating annual alcohol consumption. An approach which is proposed in these guidelines suggests adding alcohol consumed on binge drinking occasions (6 and 12 drinks) to the consumption estimated using the BSQF method. More research is needed to decide whether "binge drinking consumption" should assume, for calculations, conservative levels of 6 and 12 drinks or higher levels representing 6+ and 12+ intake. On the other hand, it should be considered whether frequency of binge drinking should not be deducted from frequency recorded in BSQF questions to avoid double counting of frequency of drinking in calculating annual alcohol consumption.

An important shortcoming of the BSQF approach is the lack of information on generic drinking frequency as BSQF allows recording of just frequencies of drinking of each individual beverage. As the SMART study found, frequency of the most frequently drunk beverage is very close to generic frequency of alcohol drinking. This, however, has to be confirmed in larger surveys.

The questionnaire proposes a number of questions on the context of drinking for usual drinking occasion and binge drinking occasion. Comparing both would help to identify protective and risk factors in the context of drinking allowing us to develop environmental guidelines and policies. Unfortunately the contextual questions emerged as an inspiration from the study and need more testing on larger samples.

A crucial issue regarding what standard instrument could be used for estimating prevalence of problematic drinking and dependence was not answered in the course of this study. So far we are mostly inclined to recommend RAPS as it is a much shorter and simpler instrument compared to CIDI or AUDIT. According to our experiences, RAPS with a cut-off point of 2 gives results closest to the "gold" standard of DSM-IV. Nevertheless, the decision regarding

which instrument to measure alcohol dependence should be implemented in a general population survey requires an assessment of the cultural invariance using Item Response Theory analysis, and further validation of the RAPS against DSM IV criteria.

One section of the questionnaire is devoted to harm from others or from third parties; this is very important research- as much as policy-wise. As the SMART study aimed to produce a brief instrument, the section on harms from others is concise. Future studies which have enough resources and are interested in this particular issue may consider using optional questions proposed in the questionnaire or even going beyond these and elaborating new questions similar to that on problems related to having a heavy drinking work mate.

Finally, attitudes towards alcohol policy should be an important element of drinking surveys. This study revealed two major attitudes:

- advocating a laissez faire approach as regards alcohol control and a low level of State intervention,
- supporting alcohol control measures and a high level of the State intervention.

More studies are needed to explore in a more detailed way opinions and attitudes towards other policy issues, including advertising, drunken driving, public drunkenness, treatment and such like.

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QUESTIONNAIRE

STANDARDIZING MEASUREMENT OF ALCOHOL RELATED TROUBLES

(FINAL)

F – Frequency of drinking

F_1. How often did you drink beer, wine, spirits (e.g. vodka, gin, whisky, brandy) or any other alcoholic beverage, even in small amounts, for example a glass of beer, wine or spirits, in the past 12 months?
(SHOW CARD 1)

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) I did not drink last 12 months, but I drank earlier ⌐ go to

11) I never drank in my life ────────────► UP_1

BSQF – Beverage specific quantity frequency method

Now I would like to ask you how often you drank particular alcoholic beverages over the past 12 months and how much you drank on average on a day when you drank.
(SHOW CARD 1)

BSQF_1. How often did you drink beer over the past 12 months?

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) I did not drink last 12 months, but I drank earlier ⌐ go to

11) I never drank in my life ⌐ BSQF_3.

BSQF_2. How much did you drink on average on a day when you drank beer over the past 12 months?

....

....

National team should define and print here the unit of reporting e.g. the unit of reporting e.g. a pint of beer or half a liter bottle

---

BSQF_3. How often did you drink wine over the past 12 months?

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) I did not drink last 12 months, but I drank earlier ⌐ go to

11) I never drank in my life ⌐ BSQF_5.

BSQF_4. How much did you drink on average on a day when you drank wine over the past 12 months?

....

....

National team should define and print here the unit of reporting e.g. 150 milliliter glass

---

BSQF_5. How often did you drink spirits (e.g. vodka, gin, whisky, brandy) over the past 12 months?

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

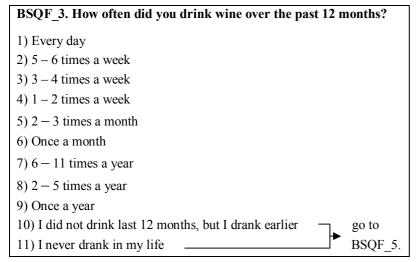7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) I did not drink last 12 months, but I drank earlier ⌐ go to

11) I never drank in my life ⌐ BSQF_7.

BSQF_6. How much did you drink on average on a day when you drank spirits over the past 12 months?

....

....

National team should define and print here the unit of reporting e.g. 30 milliliter glass

OPTIONAL FOR COUNTRY-SPECIFIC BEVERAGE

BSQF_7. How often did you drink … over the past 12 months?

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) I did not drink last 12 months, but I drank earlier   go to
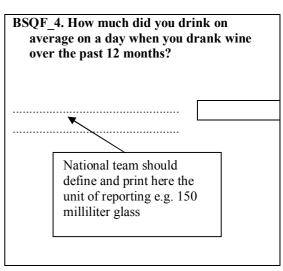
11) I never drank in my life   CD_1.
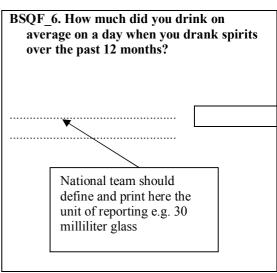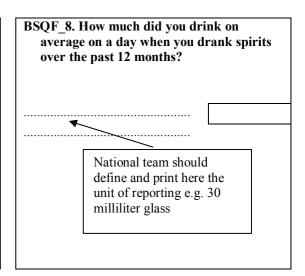
> National team should determine and print here a fourth alcoholic beverage which is country-specific and whose share in recorded sales in terms of volume exceeds 5%

BSQF_8. How much did you drink on average on a day when you drank spirits over the past 12 months?

....

....

> National team should define and print here the unit of reporting e.g. 30 milliliter glass

CD – Context of drinking

When you drink [*name of a beverage*] do you usually drink	Beer	Wine	Spirits
CD_1 With a meal or at some other time? *(one answer only for each beverage)*			
a) drink with a meal	1	1	1
b) drink at some other time	2	2	2
c) not applicable (NA) - don't drink this beverage	0	0	0
CD_2. Where? *(SHOW CARD 2)* *(one answer only for each beverage)*			
a) at home	1	1	1
b) in a restaurant	2	2	2
c) in a pub, bar, etc	3	3	3
d) outdoors	5	5	5
e) other (please describe ....)	6	6	6
f) not applicable (NA) - don't drink this beverage	0	0	0
CD_3. With whom?	Yes No NA	Yes No NA	Yes No NA
a) Alone	1 2 0	1 2 0	1 2 0
b) Family	1 2 0	1 2 0	1 2 0
c) Friends	1 2 0	1 2 0	1 2 0
d) Strangers	1 2 0	1 2 0	1 2 0

RSOD – Risky Single Occasion Drinking or Binge drinking

RSOD_1. How often in the past 12 months, have you had six drinks or more on one occasion, which is …......←…. ? **(SHOW CARD 3)**

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) Never in the past 12 months ⟶ go to DR_1

> National team should enter here amounts of beer, wine, and spirits which are equivalent of 60 grams of pure alcohol. For example: six 250 ml. glasses of beer (1.5 liter) or six 100 ml. glasses of wine (0.6 liter) or six 30 ml. glasses of spirits (180 ml.)

RSOD_2. During what time period (hours), would you usually drink six drinks (defined as above) on one occasion? *(SHOW CARD 4)*
Please tick to the nearest hour

1) Less than 1 hour

2) 1-2 hours

3) 3-4 hours

4) 5-6 hours

5) 7-8 hours

6) 9 or more hours

RSOD_3. Of the above occasions how often in the past 12 months, have you had twelve drinks or more on one occasion, which is ……...…? *(SHOW CARD 3)*

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) Never in the past 12 months ⟶ go to RSOD_5

> National team should enter here amounts of beer, wine, and spirits which are equivalent of 120 grams of pure alcohol. For example: twelve 250 ml. glasses of beer (3 liters) or twelve 100 ml. glasses of wine (1.2 liter) or twelve 30 ml. glasses of spirits (360 ml.)

RSOD_4. During what time period (hours), would you usually drink twelve drinks (defined as above) on one occasion? *(SHOW CARD 4)*
Please tick to the nearest hour

1) Less than 1 hour

2) 1-2 hours

3) 3-4 hours

4) 5-6 hours

5) 7-8 hours

6) 9 or more hours

OPTIONAL

RSOD_5. When you drink six drinks or more do you usually drink:

RSOD_5A. beer, wine or spirits or their combinations *(SHOW CARD 5)* *(one answer only)*			
a) beer only	1		
b) wine only	2		
c) spirits only	3		
d) combination of different alcoholic beverages (at least two)	4		
e) not applicable - don't drink six drinks or more	0		
RSOD_5B. With a meal or at some other time? *(one answer only)*			
a) drink with a meal	1		
b) drink at some other time	2		
c) not applicable - don't drink six drinks or more	0		
RSOD_5C. Where? *(SHOW CARD 6)* *(one answer only)*			
a) at home	1		
b) in a restaurant	2		
c) in a pub, bar, etc	3		
d) outdoors	5		
e) other (please describe ....)	6		
f) not applicable - don't drink six drinks or more	0		
RSOD_5D. With whom ?	Yes	No	NA
a) Alone	1	2	0
b) Family	1	2	0
c) Friends	1	2	0
d) Strangers	1	2	0

DR – Drunkenness - OPTIONAL

DR_1. How often in the past 12 months did you drink enough to feel intoxicated or drunk – either you felt unsteady on your feet, or your vision was blurred, or your speech was slurred? *(SHOW CARD 3)*

1) Every day

2) 5 – 6 times a week

3) 3 – 4 times a week

4) 1 – 2 times a week

5) 2 – 3 times a month

6) Once a month

7) 6 – 11 times a year

8) 2 – 5 times a year

9) Once a year

10) Never in the past 12 months

DR_2. How many drinks usually makes you feel intoxicated or drunk?

NUMBER OF DRINKS *(One drink is ....)*

National team should enter here amounts of beer, wine, and spirits which are equivalent of 10 grams of pure alcohol. For example: one 250 ml. glass of beer or one 100 ml. glass of wine or one 30 ml. glass of spirits

ASC - Adverse social consequences of own alcohol use

How many times <u>during the past 12 months</u>:	No, never	Yes, once	Yes, more than once
ASC_1. Have you felt your drinking harmed your home-life or marriage?	0	1	2
ASC_2. Have you felt that your drinking harmed your friendships or social life?	0	1	2
ASC_3. Have you felt that your drinking harmed your health?	0	1	2
ASC_4. Have you felt your drinking harmed your work or studies? (like missing work/school, not doing your work/studies well or losing your job/ dropping out of school)	0	1	2
ASC_5. Have you felt that your drinking harmed your finances?	0	1	2
ASC_6. Have you got into a fight when you've been drinking or right after drinking?	0	1	2
ASC_7. Have you been arrested or stopped by the police because of drunk driving or drunken behaviour?	0	1	2

RAPS

During the past 12 months:

	Yes	No
RAPS_1. Have you had a feeling of guilt or remorse after drinking?	1	2
RAPS_2. Have you had a friend or family member tell you about things you said or did while you were drinking that you did not remember?	1	2
RAPS_3. Have you failed to do what was normally expected from you because of drinking?	1	2
RAPS_4. Do you sometimes take a drink in the morning when you first get up?	1	2

DSM- IV Dependence - OPTIONAL

The next questions are about problems you may have had because of drinking <u>during the past 12 months</u>.

	No	Yes
DSM_1. During the past 12 months, did you need to drink a larger amount of alcohol to get an effect, or did you find that you could no longer get a "buzz" or a high on the amount you used to drink?	1	2
DSM_2. Did you have times during the past 12 months when you stopped, cut down, or went without drinking and then experienced withdrawal symptoms like fatigue, headaches, diarrhoea, the shakes, or emotional problems?	1	2
DSM_3. Did you have times during the past 12 months when you took a drink to keep from having problems like these?	1	2
DSM_4. Did you have times during the past 12 months when you started drinking even though you promised yourself you wouldn't, or when you drank a lot more than you intended?	1	2
DSM_5. Were there ever times during the past 12 months when you drank more frequently or for more days in a row than you intended?	1	2
DSM_6. Did you have times during the past 12 months when you started drinking and became drunk when you didn't want to?	1	2
DSM_7. Were there times during the past 12 months when you tried to stop or cut down on your drinking and found that you were not able to do so?	1	2
DSM_8. Did you have periods during the past 12 months of several days or more when you spent so much time drinking or recovering from the effects of alcohol that you had little time for anything else?	1	2
DSM_9. Did you have a time during the past 12 months when you gave up or greatly reduced important activities because of your drinking – like sports, work, or seeing friends and family?	1	2
DSM_10. During the past 12 months, did you continue to drink when you knew you had a serious physical or emotional problem that might have been caused by or made worse by drinking?	1	2

UP – Unrecorded purchasing

UP_1. During the past 12 months, have you traveled to another country?

      1) yes   2) no   ⟶   go to the question UP_8.

UP_2. How many times did you bring spirits (e.g. vodka, gin, whisky, brandy) back with you from abroad during the past 12 months? *(SHOW CARD 7)*

1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought with me back spirits last 12 months ⟶ go to UP_4

UP_3. How much spirits did you bring back with you from abroad in total during the past 12 months?

Please put number of liters   [   ]

UP_4. How many times did you bring wine back with you from abroad during the past 12 months? *(SHOW CARD 7)*

1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought with me back wine last 12 months ⟶ go to UP_6

UP_5. How much wine did you bring back with you from abroad in total during the past 12 months?

Please put number of liters   [   ]

UP_6. How many times did you bring beer back with you from abroad during the past 12 months? *(SHOW CARD 7)*

1) once
2) 2 times
3) 3 - 5 times
4) 6 - 9 times
5) 10 - 19 times
6) 20 - 39 times
7) 40 times or more
0) I've not brought with me back beer last 12 months ⟶ go to UP_8

UP_7. How much beer did you bring back with you from abroad in total during the past 12 months?

Please put number of liters   [   ]

How many times did you acquire particular alcoholic beverages outside of regular market (e.g. home made, smuggled, purchased directly from farmers or other producers and produced by yourself) over the past 12 months? How much such particular alcohol beverages did you acquire? *(SHOW CARD 5)*

UP_8. How many times did you acquire spirits (e.g. vodka, gin, whisky, brandy) outside of the regular market during the past 12 months? *(SHOW CARD7)*

1) once

2) 2 times

3) 3 – 5 times

4) 6 – 9 times

5) 10 - 19 times

6) 20 - 39 times

7) 40 times or more

0) I've not acquired spirit outside of regular market during past 12 months ⟶ go to UP_10

UP_9. How much spirits in total did you acquire outside of the regular market during the past 12 months?

Please put number of liters ☐

UP_10. How many times did you acquire wine outside of the regular market during the past 12 months? *(SHOW CARD7)*

1) once

2) 2 times

3) 3 – 5 times

4) 6 – 9 times

5) 10 - 19 times

6) 20 - 39 times

7) 40 times or more

0) I've not acquired wine outside of regular market during past 12 months ⟶ go to UP_12

UP_11. How much wine in total did you acquire outside of the regular market during the past 12 months?

Please put number of liters ☐

UP_12. How many times did you acquire beer outside of the regular market during the past 12 months? *(SHOW CARD7)*

1) once

2) 2 times

3) 3 – 5 times

4) 6 – 9 times

5) 10 - 19 times

6) 20 - 39 times

7) 40 times or more

0) I've not acquired beer outside of regular market during past 12 months ⟶ go to UP_14.

UP_13. How much beer in total did you acquire outside of the regular market during the past 12 months?

Please put number of liters ☐

OPTIONAL FOR COUNTRY-SPECIFIC BEVERAGES

UP_14. How many times did you acquire …… outside of the regular market during the past 12 months? *(SHOW CARD 7)*

1) once

2) 2 times

3) 3 – 5 times

4) 6 – 9 times

5) 10 - 19 times

6) 20 - 39 times

7) 40 times or more

National team could determine and print here a fourth alcoholic beverage which is unrecorded and country-specific

0) I've not acquired ….. outside of regular market during past 12 months ⟶ go to HD_1.

UP_15. How much …… in total did you acquire outside of the regular market during the past 12 months?

Please put number of liters ☐

9

HD – Heavy drinkers in your life

The following questions are related to people you may know whom you consider to be fairly heavy drinkers or someone who drinks a lot sometimes.

	No	Yes, please specify *(put the number of persons)*
HD_1. Thinking about the last 12 months, do you know some people who you consider to be fairly heavy drinkers or someone who drinks a lot sometimes?	0 ⟶ go to COM_1	…….
HD_2. Did their drinking negatively affect you in some way in the last 12 months?	0 ⟶ go to COM_1	……..

HD_3. What are relationships to you of people whose drinking negatively affected you in some way in the past 12 months ?

	Yes	No	Not applicable
a) Household member	1	2	0
b) Family member not in household	1	2	0
c) Co-worker	1	2	0
d) Friend	1	2	0
e) Others known to you, please specify ………………………………………………..	1	2	0

HD_3A. How much these person/persons' drinking affected you negatively in the past 12 months? Were you affected a lot or just a little?

1) affected a lot
2) affected a little

OPTIONAL

This section relates to co-workers (paid workers or volunteers) who you consider to be fairly heavy drinkers or someone who drinks a lot sometimes (for respondents who select answer "yes" for question HD_3 point c).

HD_4. Because of your co-worker(s) drinking, how many times in the <u>past 12 months</u> . . . .

		No	Yes, please specify *(put the number of times)*
HD_4a	Has your productivity at work been reduced?	0	…….
HD_4b	Have you had to work extra hours?	0	…….
HD_4c	Were you involved in an accident or a close call at work?	0	…….

COM – Impact of others drinking

Because of someone else's drinking, how many times in the past 12 months have you. . . . .

	No	Yes, please specify *(put the number of times)*
COM_1. Been kept awake at night or disturbed?	0	
COM_2. Been verbally abused?	0	
COM_3. Been physically abused?	0	
COM_4. Been involved in a serious argument?	0	
COM_5. Felt unsafe in public places, including public transportation?	0	
COM_6. Gone out of your way to avoid drunk people or places where drinkers are known to hang out?	0	
COM_7. Been annoyed by people vomiting, urinating or littering when they have been drinking?	0	
COM_8. Experienced trouble because of drinkers at a licensed venue?	0	
COM_9. Been involved in a traffic accident because of someone's drinking?	0	

AP – Attitudes to alcohol policy

I will read you out some statements on attitudes to alcohol policy. For each statement tell me if you strongly agree, somewhat agree, somewhat disagree or strongly disagree: *(SHOW CARD 8)*

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Don't know
AP_1. Advertising of alcohol should be restricted	1	2	3	4	9
AP_2. The blood alcohol limit for drivers should be kept as low as possible	1	2	3	4	9
AP_3. Breath testing of drivers should be widely enforced all year round	1	2	3	4	9
AP_4. Number of alcohol outlets should be decreased if people drink too much	1	2	3	4	9
AP_5. Alcohol taxes should be increased if people drink too much	1	2	3	4	9
AP_6. Alcohol is commodity like any other and does not require any special restrictions	1	2	3	4	9
AP_7. People are responsible enough to protect themselves from alcohol-related harm caused by their drinking	1	2	3	4	9
AP_8. Public authorities have the responsibility to act to keep people from being harmed by their own drinking	1	2	3	4	9

Executive
Agency for
Health and
Consumers

SHOW CARDS

TO THE QUESTIONNAIRE

STANDARDIZING MEASUREMENT

OF ALCOHOL RELATED TROUBLES

SHOW CARD 1

1	Every day
2	5 - 6 times a week
3	3 - 4 times a week
4	1 - 2 times a week
5	2 - 3 times a month
6	Once a month
7	6 - 11 times a year
8	2 - 5 times a year
9	Once a year
10	I did not drink last 12 months, but I drank earlier
11	I never drank in my life

Questions: F_1; BSQF_1; BSQF_3; BSQF_5; BSQF_7.

SHOW CARD 2

1	at home
2	in a restaurant
3	in a pub, bar, etc
4	outdoors
5	other (please describe ..………........................)
0	not applicable - don't drink this beverage

Question: CD_2.

SHOW CARD 3

1	Every day
2	5 - 6 times a week
3	3 - 4 times a week
4	1 - 2 times a week
5	2 - 3 times a month
6	Once a month
7	6 - 11 times a year
8	2 - 5 times a year
9	Once a year
10	Never in the past 12 months

Questions: RSOD_1; RSOD_3; DR_1.

5

1	Less than 1 hour
2	1 - 2 hours
3	3 - 4 hours
4	5 - 6 hours
5	7 - 8 hours
6	9 or more hours

Question: RSOD_2; RSOD_4.

1	beer only
2	wine only
3	spirits only
4	combination of different alcoholic beverages (at least two)
0	not applicable - don't drink six drinks or more

Question: **RSOD_5A.**

SHOW CARD 6

1	at home
2	in a restaurant
3	in a pub, bar, etc
4	outdoors
5	other (please describe ...………....................)
0	not applicable - don't drink six drinks or more

Question: **RSOD_5C.**

1	once
2	2 times
3	3 - 5 times
4	6 - 9 times
5	10 - 19 times
6	20 - 39 times
7	40 times or more
0	Never in the past 12 months

Questions: UP_2; UP_4; UP_6; UP_8; UP_10; UP_12; UP_14.

1	Strongly agree
2	Somewhat agree
3	Somewhat disagree
4	Strongly disagree
9	Don't know

Questions: AP_1 to AP_8.