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# The BORDERNETwork

## HIV/AIDS and STIs Bio-Behavioural Surveillance Survey (BBSS) among Sex Workers in 7 EU countries



### *Cross-country Study Protocol*

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## ACRONIMS

<b>BBSS</b>	Bio-behavioural surveillance survey, known also as second generation sentinel surveillance survey
<b>ECDC</b>	European Centre for Disease Control
<b>HIV</b>	Human Immunodeficiency Virus
<b>IDUs</b>	Injecting drug users
<b>FSWs</b>	Female Sex Workers
<b>KABP(survey)</b>	Knowledge, Attitudes, Behaviour, Practices (survey)
<b>MSWs</b>	Male Sex Workers
<b>RDS</b>	Respondent-driven sampling
<b>STI</b>	Sexually transmitted infection
<b>UNAIDS</b>	United Nations Programme on AIDS
<b>UNGASS (indicator)</b>	United Nations General Assembly Special Session (indicator)
<b>WHO</b>	World Health Organisation

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## I. INTRODUCTION

The underlying study protocol for the implementation of HIV/STIs bio-behavioural surveillance survey among sex workers in 7 EU countries is developed and implemented in the frame of the BORDERNETwork project.

### 1. BORDERNETwork in brief

The EU-funded project (Public Health programme) BORDERNETwork expands upon the former projects BORDERNET (EU-funded, 2005-2007) and BORDERNETwork (financially supported in 2008 and 2009 by the German Ministry of Health), coordinated by SPI Forschung gGmbH, Berlin.

#### The project's general objective is:

To improve the nexus between prevention, diagnostic and treatment of HIV/AIDS (incl. co-infections) and STIs through bridging gaps in practice, policies and cross-country cooperation and enhancing capacity in interdisciplinary response:

- boost regional networks in public health sector and mobilise civil society resources in order to increase the impact of local response;
- enhance links between epidemiological and behavioural research and evidence-based interventions;
- improve coordination of practices for better quality assurance in prevention measures; and forge better links between diagnostic and treatment systems.

Based on multi-sectoral network commitment, the project aims at new practice-relevant models transferred to affected regions in Central, Eastern and South Eastern Europe. 8 EU Member States (6 CEE countries) and 4 ENP countries (Ukraine, Moldova, Serbia, Bosnia and Herzegovina (BiH)- as collaborating partners divided in 5 model regions take part.

### 2. Bridge research to practice:

One of the project's bedrocks is the interlink between epidemiological, behavioural research and prevention practice in the field of HIV/AIDS and STIs, bringing off a deepened knowledge on the co-links between epidemiological events, social determinants and related evidence based prevention strategies among vulnerable groups and communities.

Therefore in its research area of cooperation (Work package 5), the **project's research objective is:**

To advance the state of research and evidence of HIV/STIs risks through outline of comparable risk behavioural indicators among vulnerable groups and to bridge findings to effective HIV combination prevention.

This will be achieved through the implementation of a cross-country HIV/STIs bio-behavioural surveillance among sex workers (incl. IDUs) in 7 EU countries: Bulgaria, Estonia, Germany, Latvia, Poland, Romania and Slovak Republic.

## II. BACKGROUND

### 1. Context of HIV Epidemic in Europe

The number of HIV infections rises continuously across Europe, with a distinguishable trend of increase in Eastern Europe, where injecting drug use and heterosexual transmission are leading modes. The newly diagnosed HIV cases per 100 000 population in 2009 have increased by almost 30 % from 2004<sup>1</sup>. According to latest ECDC HIV/AIDS surveillance in Europe in 2009, 53 427 new HIV cases were diagnosed and reported by 49 of the 53 countries of the WHO European Region. 25 917 are the new HIV cases reported by the EU/EEA countries, highest rates reported by Estonia (30.7 per 100 000 population) and Latvia (12.2 per 100 000 population).<sup>2</sup> Looking at the trends at country level HIV rates have more than tripled in Bulgaria and Slovakia and have increased with more than 20% in Estonia and Romania.

High level of undiagnosed HIV and growing numbers of HIV late presenters corroborate the importance of scaled-up early diagnosis. About 30% of those infected with HIV are unaware of their status in EU member's states. Against this light the WHO/ECDC motto<sup>3</sup> "Know your epidemic and identify the groups at risk" asserts as an imperative guideline and prerequisite for effective national HIV response strategy.

Recent epidemiological data confirms that the group of sex workers does not pertain to those most-at-risk Europe wide and is hence not considered as a priority by some of the national HIV programmes<sup>4</sup>. Nevertheless ECDC reports HIV prevalence among sex workers exceeding 1% in 14 countries in the European Region, among others in Estonia and Romania.

The overlapping of risk behaviour patterns and specific sub-groups, e.g. sex work and injecting drug use, street sex work, young age, ethnic minority/migration background and high mobility is estimated as a significant risk predictor. Given the presumed high level of undiagnosed HIV infection in the above outlined settings (e.g. injecting drug using sex workers) the systematic studying of the level of risk exposure among sex workers across Europe proves to be more than timely.

The 2010 Progress Report<sup>5</sup> on the Dublin Declaration confirmed that prevalence data for such specific sub-groups is very limited. Thereby other international surveys<sup>6</sup> outline lack of synchronisation in surveillance efforts, true for many of the most-at-risk population groups, as for SWs too. Large amount of data from single-off surveys unlinked at cross-country level exists and small amount of relevant comparable indicators are put in use. The data compiled in the ECDC mapping report<sup>7</sup> on second generation surveillance among sex workers, confirmed that

<sup>1</sup> European Centre for Disease Prevention and Control/WHO Regional Office for Europe. HIV/AIDS surveillance in Europe 2009. Stockholm:European Centre for Disease Prevention and Control; 2010.

<sup>2</sup> European Centre for Disease Prevention and Control/WHO Regional Office for Europe. HIV/AIDS surveillance in Europe 2009. Stockholm:European Centre for Disease Prevention and Control; 2010.

<sup>3</sup> European Centre for Disease Prevention and Control. *Guidance HIVtesting: Increasing uptake and effectiveness in the European Union*. Stockholm, December 2010

<sup>4</sup> ECDC. Special Report: Implementing the Dublin Declaration: 2010 Progress Report

<sup>5</sup> ECDC. Special Report: Implementing the Dublin Declaration: 2010 Progress Report

<sup>6</sup> ECDC. Technical report: Mapping of HIV/STI Behavioural Surveillance in Europe. Stockholm, 2009

<sup>7</sup> ECDC. Technical report: Mapping of HIV/STI Behavioural Surveillance in Europe. Stockholm, 2009

surveillance systems exist only in 8 EU countries where data has been collected on regular basis. Of all BORDER|NETwork countries participating in the survey at stake only Estonia had reported to collect and analyse data in sex workers on regular basis.

The desk review on the country UNGASS reports found out that most of the survey participant countries reported pretty scarce data on the sex work specific indicators. Out of the 7 countries, only Bulgaria and Estonia reported data, whereas Bulgaria's last reference period of report was 2008 and Estonia's – 2006.

Besides there are great variations in the data reported by the countries. Only 55% of the countries reported data on HIV knowledge of sex workers. Looking at the commonly applied UNGASS indicators, while self-reported condom use of sex workers keeps a steady high level (Bulgaria-85%, Estonia -94%, Romania – 85%), the differences in the accurate HIV-related knowledge are conspicuous (only 14% in Romania and 95% in Bulgaria)<sup>8</sup>. Some conclusions of the above mentioned report put under question the usefulness of the current UNGASS HIV-knowledge related indicators for sex workers.

Obviously the HIV-related knowledge indicators should be revised, presiced and interlinked to attitudes and subjective risk perception. In addition the condom use indicator should not be applied as a sole predictor of self protection or risk exposure of the sex workers. The intelink with other contextual factors of the sex work scene seems rather appropriate. Various social determinants should be also take into account and clusters of multiple-risk indicators should be outlined and analized in depth.

Finally another constraint should be noted as various controversies addressing the ethics of surveillance in vulnerable groups exits. From the perspective of the prevention and care practitioners the benefits from surveillance efforts for the survey participants should have a paramount priority and the survey results should lead to scaled-up and better tailored prevention, diagnostic and care measures. Considering the legal context and regulations (or lack of those) of sex work in some European countries this link can not be easily assured in case sex workers are prosecuted by the law in some countries.

## 2. Research objective

Overall aim of the HIV/STI sentinel surveillance is to build understanding of the epidemic in specific subpopulations and to outline trends, which is vital to monitor the current status and to guide the health response. The methods of surveillance in a particular country context should reflect the nature of the epidemic in order to be able to improve the quality of the information tracked by the national AIDS Programmes<sup>9</sup>.

In addition the UNAIDS/WHO practical Guidelines<sup>10</sup> on initiating second generation surveillance stress the imprportance of monitoring the high-risk behaviour trends over time in order to provide solid evidence for the planning of effective interventions.

<sup>8</sup> ECDC. Special Report: Implementing the Dublin Declaration: 2010 Progress Report

<sup>9</sup> WHO/CDS/CSR/200.5. Guidelines for Second Generation HIV Surveillance. UNAIDS/00.03E,2000

<sup>10</sup> UNAIDS/WHO Working Group on Global HIV/AIDS/STI Surveillance. Initiating second generation HIV surveillance systems: practical guidelines/UNAIDS/02.45E-WHO/HIV/2002.17, 2002

Departing from that, one of the recommendations for second generation surveillance suggests:

*“In low-level epidemic where relatively low HIV prevalence (less than 5% in any subpopulation) is measured in any group, surveillance systems focus largely on behaviours and HIV infection in groups at high risk, looking for changes in behaviour that may lead to an increase of rate of infection”<sup>11</sup>*

The implementation of second-generation surveillance should not be a stand-alone isolated measure, but interlinked to the planning of strategic response and its results should inform the design and constant improvement of prevention measures. Only thus the concept of highly active prevention could be implemented compiling high quality of research results and evidence for effective response.

Taking all these up the cross-country bio-behavioural surveillance survey among female (and male in 2 countries) sex workers, incl. IDUs of BORDERNETwork will contribute to bridge existing gaps in comparable data collection about risks. It will furthermore respond to the actions's recommendations of the Progress Report of the Dublin declaration, having a special focus on improved evidence for effective prevention and support measures for key vulnerable populations.

Based on the ethics of research and human rights of involved persons the BORDERNETwork bio-behavioural surveillance in female SWs (incl. IDUs) aims to:

- bridge gaps and collect cross-country epidemiological and behavioural data in SWs;
- augment evidence on HIV/STIs prevalence;
- outline comparable behaviour change indicators in the group of SWs to be addressed with prevention offers

All these will enable the survey participants to share the benefits, which will be produced by the survey in terms of improved scope of reach of the prevention and diagnostic services and their quality.

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<sup>11</sup> As above

### 3. Studied indicators

Both the elaborated ECDC/UNAIDS, UNGASS and Dublin indicators have been consulted and are reflected into the survey instrument. 6 UNGASS and 5 additional clusters of indicators will be studied in cross-country comparison.

The 6 UNGASS indicators in brief overview:

UNGASS 8	<p><b>HIV Testing in Most-at-risk Populations</b></p> <ul style="list-style-type: none"> <li>Percentage of most-at-risk population respondents who have been tested for HIV during the last 12 months and know their results</li> </ul>
UNGASS9	<p><b>Most-at-risk Populations: Prevention Programmes</b></p> <p>Percentage of most-at-risk population respondents who:</p> <ul style="list-style-type: none"> <li>know where to go to receive and HIV test;</li> <li>have been given condoms in the last 12 months;</li> <li>have been given sterile needles and syringes in the last 12 months</li> </ul>
UNGASS14	<p><b>Most-at-risk Populations: Knowledge about HIV Transmission Prevention</b></p> <p>Percentage of most-at-risk population respondents who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission</p> <p>Those who gave the correct answer to all five questions:</p> <ol style="list-style-type: none"> <li>Can having sex with only one faithful, uninfected partner reduce the risk of HIV transmission?</li> <li>Can using condoms reduce the risk of HIV transmission?</li> <li>Can a healthy-looking person have HIV?</li> <li>Can a person get HIV from the mosquito bites?</li> <li>Can a person get HIV by sharing a meal with someone who is infected?</li> </ol>
UNGASS18	<p><b>Sex Workers: Condom Use</b></p> <p>Percentage of female or male sex workers reporting the use of a condom with their most recent client</p>
UNGASS21	<p><b>Injecting Drug Users: Safe Injection Practices</b></p> <p>Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected</p>
UNGASS 23	<p><b>Most-at-risk Populations: Reduction in HIV Prevalence</b></p> <p>Percentage of most-at-risk populations who are HIV-infected</p>

As commented above some of the UNGASS indicators do not provide sufficient light on the background and cultural context of risks and should be complemented by additional clusters.

### Additional behavioural indicators' clusters studied

- **Transactional sex** (in exchange of money, goods, gifts or drugs)
  - Sex work in the past 3 months – selection and enrolment criteria for the survey respondents;
- **Condom use (besides UNGASS)**
  - Consistent condom use with clients in the last month
  - Condom use with clients per type of sexual practice
  - Have more than 5 clients out of 10 asking for sexual intercourse without a condom
- **Intravenous drug use and risk exposure**
  - Sex workers injecting drugs in the last 12 months;
  - Sexual partners of sex workers who have injected drugs in the last 6 months;
- **HIV testing and health-care seeking behaviour (besides UNGASS)**
  - Sex workers seeking voluntary HIV test;
  - Sex workers who visited gynaecologist/urologist in the last 12 months- access to health services;
  - Sex workers who visited specialist (STI doctor) in case they suspected to have an STI;
  - Sex workers diagnosed with an STI who followed the prescribed treatment till the end;
- **Mobility**
  - Having worked abroad in sex work in the last 12 months
  - Most frequent countries of destination for sex work abroad in the last 12 months

## III. SURVEY DESIGN

### 1. Survey locations, respondents and sample size

Selected survey locations are the 6 capital cities: Berlin, Bratislava, Bucharest, Riga, Sofia, Tallinn and the German-Polish border area. A convenient sample will be builded with an estimated size of 1200-1500 respondents in total (200-250 per location) depending on local context and fluctuations in sex work milieu. The target group of the survey is female sex workers from in-door and out-door sex work scenes. The group of IDU sex workers will be also addressed as far as represented in the group of the sex workers in the particular survey location. Among the groups of FSWs representatives of ethnic minority groups (e.g. Russian FSWs in Estonia, Roma FSWs in Romania and Bulgaria) will be reached and recruited as well as sex workers with migrant background (e.g. Romanian FSWs in Berlin, Ukrainian FSWs in Poland) in one or another EU survey location. Alongside in Berlin (DE) and Sofia (BG) MSWs will be recruited.

The estimation of the sample size ensued after consultation with the individual country research teams, majority of which are at same time the main service providers of outreach prevention, counselling and early diagnostic services for sex workers in their areas.

## 2. Sampling methods

Two major sampling methods will be applied in combination: Respondent-driven sampling (RDS) and Service-driven sampling (SDS) .

As ECDC report on mapping of behavioural surveillance<sup>12</sup> pointed out there is lack of comparable data, due to one-off surveys on the one hand, very strong divergences of political context of prostitution in Europe and lack of comparable sampling methods on the other. The planned surveillance will take those up trying to create basis for comparison but will also give priority to national particularities. Related to that consideration one sampling method alone does not prove to be feasible considering the context features of sex work in some of the countries, marked by clandestine scenes and rigorous prosecution measure of power institution. Therefore the decision was taken to combine the elements of RDS and SDS, whereas some partners who draw already on experience with RDS methods will apply it alone from the start of the survey. Two of the survey locations (Tallinn and Riga) will conduct the survey predominantly based on the RDS method. Its major advantage is the effort to reach hidden sample groups and to identify new social networks of within target groups, usually inaccessible for the service providers.

This method will not be described up to detail here, as it is presented pretty illustrative in the formative research and the definition of the sample of the Estonian partners<sup>13</sup>.

According to RDS principles 3 initial respondents will be deliberately selected (seeds), representing various sub-groups of the SW community in the survey location. 3 recruitment coupons are given to each of them for recruitment of further survey respondents. From that moment on the different snow-ball arms of the sample are guided by the respondents themselves. Accordingly the pace of recruitment is defined by the motivation and recruitment commitment of the seeds. This is one of the estimated weak points of the sampling method, leading often to too prolonged administration phase of the survey.

Some of the countries (Latvia, Bulgaria, Slovak Republic) have experience with the alternative service/venue-based sampling, which in its turn poses the risks of generalisability of the findings.

The RDS method will be applied as an alternative by the rest of the survey partners, whereas the service- and venue-driven sampling methods will be primarily used in Berlin, Bratislava, Bucharest and Sofia due to particularities of the sex work scenes there. The respondents will be enrolled in each survey location via: sex workers STI services, mobile medical units, drop-in centres and time-location based visit into prostitution areas. During the recruitment through services and venues here again snow-ball arms will be initiated and respondents will be invited to recruit further target group members for the survey, thus combining RDS with SDS sampling elements.

<sup>12</sup> ECDC. Technical report: Mapping of HIV/STI Behavioural Surveillance in Europe. Stockholm, 2009

<sup>13</sup> Johnston, L., Trummel, A. Assessment for representative Sampling Among Female Sex Workers in Tallinn, Estonia. National Institute for Health Development, Tallinn . 2010

The distribution of the sample subgroups and the sampling methods in the 6 survey locations:

Survey location	Sample size	Sampling method
<b>Sofia (BG)</b>	<b>150-200</b> FSW (100-130 ), MSW (50-70 )	<b>SDS + RDS</b>
<b>Tallinn (EE)</b>	<b>250 FSWs</b>	<b>RDS + SDS</b>
<b>Berlin/Brandenburg/ Polish border area (DE/PL)</b>	<b>190</b> 125 in Berlin (80 FSW, 40 MSW), 65 in border area (PL)	<b>SDS+RDS</b>
<b>Riga (LV)</b>	<b>200 FSWs</b>	<b>RDS + SDS</b>
<b>Bucharest (RO)</b>	<b>200 FSW</b>	<b>SDS</b>
<b>Bratislava (SK)</b>	<b>250-300 FSW</b>	<b>SDS</b>

### 3. Eligibility and selection of respondents

Considering the principles of ethics for research in human beings and the nature of the survey at stake (bio-behavioural) 3 eligibility criteria will be applied in the sampling and recruitment process:

- Experience in sex work (transactional sex for exchange of money, goods, presents, drugs) in the last 3 months;
- Obtaining respondent's Informed Consent after delivering full information about the survey assuring anonymity of respondents and confidential treatment of data;
- Age of consent for a blood test - 18 years in the majority of the countries, which will be reported by the respondents themselves

### 4. Methodology

A qualitative structured behavioural questionnaire is applied combined with a blood test (HIV, Syphilis, Hepatitis C, Hepatitis B)

#### 4.1. Structured Behavioural Qualitative Questionnaire

The questionnaire is to be administered through a face-to-face interview conducted by trained interviewer after checking eligibility and obtaining informed consent. Respondents may interrupt the interview at any point; in that case the interview is invalid and no blood test will be taken. The average duration of an interview will be 35 to 45 minutes.

The questionnaire comprises 85 items divided in 5 thematic blocks:

- I. General Data to personal and work situation – demographic and social determinants – 24 items;
- II. Mobility – patterns and frequency of mobility, countries of destination in the last year – 3 items;
- III. Sexual Contacts and Commercial Sexual Services – sexual practices, sexual risk, transaction sex, condom use, protection – 20 items;
- IV. Substance use – experience with substances, injecting drug use, injecting risk – 14 items;
- V. HIV/AIDS/STIs, Diagnosis and Testing Services – knowledge, attitudes, believes regarding HIV/STIs, experience with HIV-test, access and utilisation of health care services – 24 items

Besides in English, which is the working version, the questionnaire is translated in 10 languages– Bulgarian, Estonian, German, Hungarian, Latvian, Polish, Romanian, Russian, Slovak, and Turkish.

After the end of the interview the respondent will be invited to give blood for the HIV/STIs test. The blood test will follow after the pre-test information discussion and here again the confidential treatment of the personal data is assured.

#### 4.2. Blood testing

The testing is performed in each survey team by a medical worker, trained to conduct blood tests. The equipment and testing procedures correspond to the national standards in each country.

#### Tested Infections:

- HIV
- Syphilis
- Hepatitis B
- Hepatitis C
- Chlamydia (only in Latvia and Bulgaria (for male sex workers))
- Herpes Simplex II (only in Latvia)
- Gonorrhoea (only in Bulgaria for male sex workers)

#### Tests and procedures

The HIV and STI testing approach is based on ethical principles and human rights, putting the VCT standards into practice: voluntary, confidential, undertaken with informed consent.

The specification of the tests in the individual survey countries is not matter of this survey protocol as each partner will specify them in their context.

Almost all of the partners will apply ELISA whole blood tests with certified laboratory diagnostic. In the cases where rapid finger blood tests (Point-of-care test, POCT) will be used the WHO/CDC guidelines for rapid tests will be strictly followed. All reactive screening tests will be verified with a confirmatory test and only the positive results of the confirmatory tests will be reported.

Confidentiality will be highlighted through the whole procedure. No personal data will be used, only the unique participant code, which will be identical on the questionnaire filled and on the blood sample.

After the test, each survey respondent will be encouraged to collect their test results. The results will be given in person by presentation of the card with the respondent's unique code. Post-test counselling is an intrinsic part of the result-giving.

By each of the research teams referral pathways are in place, in case a respondent receives a positive result from the test. All respondents with a positive diagnosis of HIV or STI will receive consultation and referral to care.

## 5. Survey administration

The research teams in each location will consist of:

- Research coordinator/supervisor – representative of the BORDERNETwork partner organisation
- Interviewers – trained to conduct face-to-face interview
- Medical staff- nurses/ medical doctors – contracted to participate in the survey implementation

## 6. Respondent incentives

Considering the scope of the survey, the expenditure of time for the respondents and the selected recruitment techniques, incentives are foreseen for all participants in the survey. This entails no ethical conflict and response-biases according to our understanding. On the contrary, the respondents are defined as experts in their patterns of behaviour, i.e. considered to be key informants. The survey partners who will implement predominantly RDS technique foresee also incentives for the recruitment of further survey participants.

No remuneration in cash will be handed over to the respondents. They will be offered an incentive in the form of a present or a good voucher (from cosmetic or drug store) accordingly upon necessity of the local circumstances.

Additional support will be provided in kind of HIV/STIs information and education materials, condoms, lubricants and other preventive tools.

## 7. Risk Assessment

An internal method-related risk to be considered is the sampling method based on combination of service- and respondent-driven sampling. The risks considered here are possible biases in the recruitment of the waves of respondents through SW service providers and the slow pace of recruitment based on respondents activity only, making the administration phase time-consuming. All partners will be ready to switch to other methods (active mobile units visiting venues of sex workers) of sampling in case of prolonged phase with lower number of respondents reached

hampers the finalisation of the field phase. This flexibility could only be possible considering that the sample is not representative.

Another risk to be considered though not to be easily alleviated is the intense season-bound mobility of sex workers within and across country borders. The administration phase planned for the spring and summer time is advantageous on the one hand for reaching the respondents in outdoor SW settings. On the other hand summer mobility of SW towards vacation and touristic hot-spots influences the scene in the survey locations inevitably and can lead to a decreased number of respondents reached.

Last but not least unexpected prosecutory measures from power authorities in SW settings can play a negative role on both acceptance of the survey in the scene and recruitment of respondents.

#### IV. ETHICAL ASPECTS

The survey can only be initiated in each of the EU countries after the respective BORDERNETwork partner receives the corresponding approval and allowance of the ethical commission or the personal data protection reference point. As far as the survey is not a nationally representative, this may be a national or regional type of permission in each country, according to the available effective regulations.

As repeatedly mentioned so far the Informed Consent and the Confidentiality are the most important prerequisite for the recruitment of respondents after eligibility criteria have been checked. The introductory part to the interview comprises exhaustive information with regard to the objectives of the survey, the anonymity of the respondent and the confidential treatment of the data. No interview will start before the informed consent is being obtained, which will be assured by the interviewer with her/his signature on the paper questionnaire.

All data of one single respondent will be marked only with the unique respondent code consisting of:

*1<sup>st</sup> letter of first name of respondent, month of birth, date of birth, 1<sup>st</sup> letter of mother's name*

This code will be put on the filled in behavioural questionnaire, on the vacutainer with the blood sample and will be additionally handed over to the respondent for the collection of the test result. No other personal data except the code will be collected.

All data will be kept under full confidentiality following the data protection rules. The collected filled-in questionnaires will be sent from each BORDERNETwork partner to the coordinator, SPI Forschung gGmbH, where they will be kept for a period of 5 years after the completion of data processing and report.

After the blood testing the respondent will be encouraged to collect her/his test results and will be informed where and when to collect them.

At the end the respondent incentives will be handed over.

## V. DATA ANALYSIS

The filled-in paper questionnaires with the registered on them blood test results will be collected and checked for completeness and plausibility by the local research coordinators and sent to the survey co-ordinator, SPI Forschung gGmbH. The data entry and analysis will proceed there with the help of statistic programmes, such as SPSS. Cross-country assessment will be carried out and comparisons will draw out patterns and tendencies in the studied variables and indicators.

The survey report will be written in English and disseminated to the whole BORDERNETwork network of stake holders. Additionally the data sets of the different survey countries will be made available to the participants for their own national assessment. Publications in scientific journals, presentation of abstracts and posters during international conferences will be used as means to disseminate the survey results.

## VI. ACTION AND TIME FRAME

- **Instrument finalisation and translation into national languages –January-February 2011**, responsible – SPI Forschung with assistance of the survey partners;
- **Consultation and approval of study protocol an instrument by the respective ethical commissions – February- April 2011**; responsible – each BORDERNETwork partner;
- **Administration of survey – March-August 2011**, responsible – each BORDERNETwork partner;
- **Data entry – August – October 2011**, responsible – SPI (with exception of NIHD, Estonia, who will enter own country data and proceed with national assessment. The Estonian data set will be submitted to SPI for cross-country comparative assessment);
- **Analysis and report – October – December 2011**, responsible – SPI

The draft report of the survey will be presented to all partners.

**Recommendations for practical implementation of research finding into specific intervention measures – December 2011- January 2012** – responsible – SPI and each BORDERNETwork partner

**This study protocol arises from the project BORDERNETwork, which has received funding from the European Union, in the framework of the Health Programme.**

**The sole responsibility of any use that may be made of the information lies with the authors (SPI Forschung gGmbH and ... (name of country partner/s))**

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