European Monitoring Centre
for Drugs and Drug Addiction

DRID Guidance Module

EXAMPLE QUESTIONNAIRE FOR BIO-BEHAVIOURAL SURVEYS IN PEOPLE WHO INJECT DRUGS

EMCDDA DRID Example Questionnaire
VERSION 2.0

27/01/2014

EMCDDA Drug Related Infectious Diseases (DRID) Monitoring Guidance Toolkit

European Monitoring Centre
for Drugs and Drug Addiction

DRID Guidance Module

METHODS OF BIO-BEHAVIOURAL SURVEYS ON HIV AND VIRAL HEPATITIS IN PEOPLE WHO INJECT DRUGS — A SHORT OVERVIEW

EMCDDA DRID Bio-Behavioural Methods Module
VERSION 1.0

27/01/2014

EMCDDA Drug Related Infectious Diseases (DRID) Monitoring Guidance Toolkit

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Acknowledgements:

Substantial input was given by:
Kaatje Bollaerts, OD Public Health and Surveillance Surveys, Lifestyle and Chronic Diseases Brussels
Hans Blystad, Norwegian Institute of Public Health, Department of infectious Diseases Epidemiology, Oslo
Maria Jose Bravo, National Centre of Epidemiology, Carlos III Health Institute, Madrid; CIBERESP, Spain
Victor Mravcik, Head of the Czech National Focal Point for Drugs and Drug Addiction Office of the Government of the Czech Republic
Jesus Maria Garcia Calleja, WHO Geneva

Thanks to other participants of the Advisory Group meeting of 9 October 2012:
Andre Noor, EMCDDA
Catharina Matheï, ACHG, KULeuven, Leuven
Julian Vicente, EMCDDA
Paul Griffiths, EMCDDA
Vivian Hope, HIV/STI Department — Centre for Infections, Health Protection Agency, London
Anastasios Fotiou, University Mental Health Research Institute (UMHRI), Athens

We also thank the participants of the DRID meeting 10–11 October 2012 for their valuable contributions.

Recommended citation:
European Monitoring Centre for Drugs and Drug Addiction (2013), *DRID Guidance Module: Methods of bio-behavioural surveys on HIV and viral hepatitis in people who inject drugs — a short overview,* EMCDDA, Lisbon.

I. Introduction

- *Harmonising second generation surveillance among IDUs in Europe*

The aim of this module is to provide guidance in implementation and use of biological and behavioural studies among people who inject drugs (injecting drug users/IDUs) as a tool in routine surveillance at the country and European level. This could be considered a step towards harmonising and improving the quality of the second generation surveillance among IDUs in Europe. Second generation surveillance for human immunodeficiency virus/ acquired immune deficiency syndrome (HIV/AIDS) is defined as 'the regular, systematic collection, analysis and interpretation of information for use in tracking and describing changes in the HIV/AIDS epidemic over time. Second generation surveillance for HIV/AIDS also gathers information on risk behaviours, using them to warn of or explain changes in levels of infection' ([1]). For considerations on the framework for second generation surveillance among IDUs in Europe please see the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)'s *DRID protocol* for the implementation of key indicators on drug related infectious diseases (DRIDs) ([2]). The background will be further explained in a future introduction module of this Toolkit. Information on biological and behavioural indicators can be obtained through pooling and analysis of data collected for other purposes (secondary data sources) or through specifically designed studies. For guidelines on possible sources and utilisation of secondary data please refer to the EMCDDA's *Draft protocol* ([2]). The topic will be covered also in a future module on prevalence and behavioural data from diagnostic testing, TDI and other registries.

In this module:

Introducing methods for running bio-behavioural surveys among IDUs

Bringing together existing guidelines highlighting IDU specific information

Discussing preferred methods in view to harmonise second generation surveillance of IDUs in Europe

The present module covers studies that are specifically designed to obtain information on seroprevalence of HIV/hepatitis C virus/hepatitis B virus infection in IDUs and/or specific behaviours that are important in the context of these diseases. Whilst acknowledging the role of qualitative studies in understanding behaviours and behavioural changes, this module focuses mainly on quantitative measurements.

- *Existing guidelines*

There are existing documents providing step-by-step guidance on planning and implementation of biological, bio-behavioural and behavioural studies in the framework of second generation surveillance. Those guidelines present the second generation surveillance approaches from different angles, usually underlining their relevance in HIV surveillance, and are not specific for studies among IDUs. Furthermore, most of the guidelines have been designed to serve the needs of both developed and developing countries. In this module we summarise recommended practices that are the most relevant to studies of IDUs, putting them more specifically in a European context. Therefore this module, rather than providing prescriptive detailed guidance for developing a study protocol, aims to allow easy reference to particular topics in other guidelines that are useful in designing biological and behavioural studies among IDUs. The module further aims to provide updated information by including reference to

Key documents:

Draft protocol for the implementation of DRID, EMCDDA and Greek FP 2006 ([2])

Behavioural surveillance surveys, Family Health International, 2000 ([3])

Behavioural surveillance toolkit, ECDC, 2010 ([4])

Guidelines on surveillance among populations most at risk for HIV, WHO/UNAIDS, 2011 ([5])

Surveillance of populations at high risk for HIV transmission, CDC/GAP, UCSF, 2010 ([6]).

and summaries of recent methodological developments, practical experience and criticisms on these methods. Moreover, the present module also covers other drug related infections than HIV — in particular hepatitis C virus (HCV) and hepatitis B virus (HBV) — which are not part of existing guidelines.

The references to the key existing documents are given in the box ([2, 3, 4, 5, 6]). These documents are complemented by references to additional guideline documents for specific sections, the recent published literature on studies among IDUs and textbooks. Moreover, the Joint United Nations Programme on HIV/AIDS and the World Health Organization (UNAIDS/WHO) are updating several modules on second generation surveillance, which will be accessible at www.who.int/hiv/strategic/surveillance/en/.

- *Overriding divisions and the use for surveillance purposes*

For the purpose of surveillance, studies among IDUs can be classified as shown in Table 1. Unlinking studying biological markers and behavioural indicators has been recommended by Family Health International (FHA) ([3]) in order to avoid participation bias in behavioural studies. The results are then linked at population level and presented together. In studies among IDUs there are not many options to run representative unlinked anonymous bio-surveys. Additionally, this could be regarded as missing an opportunity to provide testing and in consequence access to treatment. All existing surveillance guidelines focus on repeated cross-sectional surveys. However, in many European countries there exist cohort studies of drug users that provide important insight into infectious disease risk in this population.

Definitions:

Behavioural surveillance surveys – cross-sectional, quantitative studies collecting behavioural indicator data.

Biological surveillance surveys – cross-sectional studies in which biological samples are collected and tested. The term is sometimes used to describe case-based reporting of new diagnoses.

Bio-behavioural surveillance surveys — combine collecting biological samples and behavioural indicators from the same individuals

Study settings have a fundamental impact on the study design, logistics and sustainability. It is also not always clear how representative the population accessible in different settings is for the whole drug using population. In the European context, in countries where coverage of services is high, sampling at services might be the method of choice ([4]). Where service coverage is low, chain-referral studies (respondent-driven sampling) or other community-wide methods may result in more representative samples.

This document focuses on bio-behavioural cross-sectional studies, while the choice of settings will depend on the local situation and the aims of the study. Nevertheless, the results may be more likely to be generalisable if combining open service settings (low threshold facilities) with community recruitment.

Table 1 — Overriding divisions of studies used in bio-behavioural surveillance.

Categorisation		Description	Comments on use
Type of information collected	Biological (e.g. seroprevalence)	Collect biological markers of infections from target population	Very unusual in IDUs without collecting interview data.
	Behavioural	Collect behavioural indicators from target population	More frequently done. Biological investigations usually left out due to logistical and costs issues.
	Bio-behavioural	Collect linked biological markers and behavioural indicators from target population	Frequently done, combines both types of information.
Epidemiological study type	Cross-sectional	Information collected from a (representative) sample of target population at a single point in time	Frequently done due to relative simplicity.
	Cohort	Members of the target population are observed in time (followed up). Typically outcome (e.g. incidence of disease) is compared among exposed and non-exposed groups.	Infrequently done, despite strong design, due to complexity/costs of following up IDUs over time.
	Case-control	Odds of exposure are compared among cases (e.g. infected) and controls (typically uninfected).	Not very frequent, analysis is relatively similar to cross-sectional.
	Ecological	Average level of exposure and a measure of frequency of outcome are correlated across units such as counties or schools.	Not very frequent due to problems in interpreting results (weaker design). However, may be useful to study population level factors.
Study settings/ sampling frame	Community	Respondents are recruited directly from the community of drug users, either by researcher visiting places where drug users congregate or via other community members.	Frequently done. Provides relatively generalisable data, but at relatively high costs.
	Services (outpatient)	Respondents are recruited from clients/patients of various services for drug users, where they come for specific service but are not expected to stay a full day.	Frequently done due to ease of recruitment. May be less generalisable if services have low coverage.
	Closed settings	Respondents are recruited from settings where they spend at least one full day, such as detoxification wards, stationary rehabilitation centres or prisons.	Frequently done, easier logistics, ethical issues are even more important. May be difficult to generalise to IDUs outside these settings.

II. Steps in planning and implementation of a study

When setting up bio-behavioural, biological or behavioural surveys among IDUs with an objective of serving immediate public health purposes, a number of steps will be relevant prior to research activities in order to ensure proper use of the information generated later on. The steps to be considered are outlined in (3) or (5). They include:

1. Building partnerships:

    - Ensure that the plans are in line with the main stakeholder's needs. It is useful to take advantage of existing knowledge and experience. The possible structures that could be contacted include those that will use the results of survey(s), those who potentially could be involved, and those who can help through their expertise or mandate.
    - The best collaborations and strongest support for a study can often be obtained when involving stakeholders at a very early stage and allowing them to provide comments and ideas for the study when these can still be easily integrated in the plans (allowing them 'shared ownership').
    - Depending on the local situation, these could include governmental agencies, local government, resource planning structures, surveillance structures, infectious disease (HIV, hepatitis) prevention programmes, monitoring and evaluation programmes, clinical services (infectious disease, drug treatment), low threshold services for drug users, local police departments, universities, and also NGOs and community members.
    - An agreement should be set up between the stakeholders including the rules of publicising the results, ownership of the data and financial responsibilities of the parties.

2. Assessing the existing evidence on drug using population and infectious disease among drug users:

    - The existing information should be reviewed, such as results of surveillance and other monitoring systems (e.g. treatment provision, mortality), on-going public health interventions, police data, previous studies. Qualitative research or rapid assessment ([7]) might be also useful to get an idea about the organisation of the local drug scene, norms and behaviours.
    - Ideally these data will help identify geographical areas where the study should be implemented (e.g. high incidence sites), approximate prevalence of injecting drug use, as well as information determining the choice of the study design and the study logistics, for example existence of an open drug scene, degree of networking among the drug users, coverage of services, etc.
    - The legal background should also be reviewed regarding drug use, biological sample collection, conducting studies, data protection and ethical approval.

3. Defining clear objectives:

    - Based on the preliminary information collected and public health needs there have to be clearly defined objectives and study questions beginning with fundamental decisions such as if the study is planned as a rapid assessment of the situation, an in-depth analysis of specific problems or a part of a long term monitoring process.
    - It should also be clear what are the priorities for information and the main outcome measures/indicators: monitoring trends in disease occurrence (incidence, prevalence), monitor frequency of risk behaviours, monitoring programme coverage, monitoring programme targets or others.
    - Depending on the primary study question, consider whether the study should be specifically designed to provide information about any specific subpopulation (e.g. young drug users, female drug users, injecting/non-injecting populations, specific substance users) and if the study should target any specific area (the criteria to select

such sites: incidence of infectious diseases, coverage of services, prevalence of injecting use).

4. Study planning and implementation (further developed in the specific sections):
    a. Defining the target population.
    b. Deciding sampling design, constructing sampling frame and calculating sample size.
    c. Developing the survey protocol including study instruments (questionnaire).
    d. Training interviewers and identifying pilot survey procedures and instruments.
    e. Data collection and supervision.
    f. Data management and analysis.
5. Using the data to improve prevention efforts against drug related infectious diseases:

    As the main assumption of surveillance is that the data collected should be used, ways of publicising study results and the target audiences should be planned in advance. Besides the full report there should be appropriately presented information for the community and key messages for the stakeholders.

III. Defining the target population

The target population is the population that the researchers wish to study and refer their results to. Ideally, the recruited sample is representative for the target population and the results of the study can be generalised to the target population. For this reason it may be advisable to explicitly restrict the target population, excluding subgroups that are no longer accessible. For example, surveys among IDUs usually exclude ever-injectors who no longer take drugs.

Definitions:

Injecting drug use (IDU)

Injecting a psychoactive substance for non-medical purposes.

Includes intravenous injecting, intra-muscular injecting or injecting under the skin ('skin popping').

Problem drug use (PDU)

Injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines.

In the context of blood borne infectious diseases the highest risk is due to unsafe injections and therefore the focus of the surveillance studies usually remains on injecting drug users ([2, 3, 4, 5, 6]). Therefore, if the survey includes non-injecting problem drug users then the results should always be presented separately for ever-injectors and never-injectors. Generic definitions are provided in the box. However, the study should define specific inclusion criteria.

The EMCDDA *Draft Protocol* ([2]) distinguishes the following target populations:

a. Ever-IDUs who are also recent (last 12 months) problem drug users (PDUs).
b. Recent/current/active (last 4 weeks) IDUs.
c. Ever-IDUs in the general population (includes ever-IDUs who are not recent PDUs).
d. Recent (last 12 months) PDUs — always distinguishing ever- and never-IDUs.

Most of the surveillance studies focus on ever-injectors or current injectors as their target group (but only those who still use drugs, i.e. who are still recent PDUs — groups a and b above). The local situation and study aims may justify selecting a subgroup of those based for example on age (e.g. young injectors aged <25 or <30), using specific substances (e.g. opioid injectors), or race/ethnicity/migration status. New injectors, even though an important group, are usually not targeted specifically but are distinguished in the analysis given that they are difficult to recruit separately and would often result in very small sample size.

Relatively less focus has been placed so far on non-injecting drug users (NIDUs). However, there is evidence of a higher prevalence of blood borne infections among NIDUs than among the general population, even if the prevalence will usually be much lower than among IDUs. This is attributed to an increased risk of sexual transmission (high risk sexual behaviours and/or bridging from IDUs), sharing of non-injection paraphernalia or other routes such as tattooing in non-professional settings (e.g. in prisons). A sufficient explanation of this increased prevalence among NIDUs is still to be identified, and to an unknown extent this group may include ever-injectors who do not wish to disclose their injection history ([8, 9]). This group may, however, be important subjects of study in situations where prevalence among IDUs is high and when it is suspected that transmission other than through injecting is important (e.g. sexual transmission for HIV or HBV).

For the purpose of surveillance of HIV, HBV, HCV it is usually recommended that studies concentrate on recent/active injectors if they are repeated frequently, in order to monitor change in the population. If the studies are infrequent and it is important to obtain a full picture of the burden of disease in the IDU population it might be better to include all ever-injectors in the drug using population. Including all ever-IDUs in the general population, although in theory ideal, is usually not practical as those who have stopped using drugs would be very difficult to recruit.

The EMCDDA collects prevalence data from ever-injectors; these may be either all ever-IDUs (both active and ex-IDUs) or be limited to the subgroup of active injectors. In terms of comparing prevalence estimates, the choice between ever-IDUs and active injectors often does not make much difference for the resulting prevalence, as in many European countries most active injectors are opioids injectors

who have long injecting careers and remain actively injecting for many years. Similarly, when comparing prevalence from studies that define active injectors as those injecting in the last 12 months, last 6 months or in the last 4 weeks, the resulting prevalence estimates are usually very similar in the case of opioid injectors. This is because opioids injectors are mostly long-term chronic injectors and thus most active injectors who have injected in the last 12 months will also have injected in the last 4 weeks.

Table 2 — Variables commonly used to define target groups.

Subgroup (EMCDDA definition)	Description	When to focus
	Drug injecting status	
Ever-injectors (having ever injected in lifetime, even if only once)	Ever-injectors are at risk of being infected with HIV/HCV. Infection could have occurred a long time before the study. Depending on service coverage, a substantial proportion of infections would be already diagnosed. They might still use drugs and remain at increased risk through their sexual networks. They might be a source of infection to others.	Not much known about prevalence of blood-borne viruses among IDUs. High undiagnosed fraction (to monitor efforts to decrease it), burden of disease. Risk of sexual spread to non-IDUs when prevalence is high in ever-IDUs.
Non-injecting PDU (having never injected a psychoactive substance, not even once)	Non-injectors are at risk of transition to injecting and they may have an increased proportion of injectors in their social networks who can act as source.	Settings where injecting levels are low or declining, especially if there is a high prevalence in injectors due to prior epidemics.
	Duration of injecting history	
New injectors (first injection less than 2 years ago)	New injectors are at a very high risk for infections. The prevalence among new injectors may form an indicator of incidence. The new injectors might not yet be covered by services.	Low prevalence settings. Settings with high coverage of services. Due to sample size considerations it may be best to differentiate at the level of analysis, e.g. sampling recent IDUs.
	Recent injecting	
Current/recent/active injectors (having injected in the last 4 weeks)	Current/recent injectors form networks for the spread of blood-borne viruses. Their behaviours and prevalence in this group will determine injection related spread.	Monitoring of current risk. Impact of services.
	Age	
Young injectors (<25 years)	Not as good an indicator for incidence as prevalence in new IDUs, but still a group that concentrates IDUs with shorter injecting careers, often higher risks and potentially less coverage of services.	To study recent developments in the IDU population, e.g. recent trends in new substances.

	Substance of choice	
Opioid users	Usually the group with the biggest problems and highest prevalence, especially when they combine opioids and stimulants (e.g. injecting both together). This group usually includes those who inject both types of substances. Heroin has historically been the dominant opioid and home-made opiates from poppy straw were also present in some Eastern European countries. Recently, other opioids like illicit buprenorphine or fentanyl have become regionally prevalent.	When the study aims focus around opioids substitution treatment coverage or when purely stimulant injection is not very common.
Stimulant users	Studies interested in stimulant injectors often focus on those who do not also use opioids, i.e. pure stimulant injectors (e.g. amphetamine or methamphetamine injectors). These often have very different social networks and behaviour from opioids users, often including less contact with services. If a study includes both opioid users and stimulant users then in the analysis phase they are usually distinguished (either putting those who use both substances in the opioids users group or distinguishing three groups).	When injecting of stimulants is a significant phenomenon in the country.
	Residence	
IDU, residents of the area	Those living in the studied area for a specified time period, e.g. 12 month prior to the survey.	Many studies exclude non-residents to better quantify the burden of disease in the area. This also allows better reference to capture–recapture studies estimating the local population size of injectors. In cases where there is a high turnover of population, including non-residents may provide important insights, e.g. in importation risks.
	Gender	
IDU, females/males	It is uncommon to recruit just one gender.	

IV. Defining the sampling frame

A sampling frame is the population from which the sample is actually taken. There should be a well-defined access to this population. Ideally, a list of members of the sampling frame exists, from which the sample can be drawn. The sampling frame population should be a good representation of the target population.

Drug users remain a hard to reach population and each of the potential sampling frames has its drawbacks and is likely to introduce some bias. A common approach is therefore to use different sampling frames in one study (e.g. recruitment from services and on the streets) in order to reduce overall bias when generalising to the full IDU population. Nevertheless, generalisation of the results of one survey among IDUs is always problematic.

The selection of the sampling frame will depend on the target population, on the characteristics of the drug scene/services and on the resources that are available.

Commonly used sampling frames include:

1. Community — Drug users who stay in touch/are networked with other drug users. This could be through either attending specific venues (other than services) or personal networks.
   - Usually the closest to the target population, although may exclude ex-users.
   - Hard to reach, requires specific resource intensive approaches.

2. Clients of outpatient services — Drug users who seek help from a service provider (agency) or are reached by outreach workers. An agency can be defined as a structure that employs staff to enter in direct contact with drug users and provides harm reduction services, general health services, dependency treatment to them in a fixed place, but on an outpatient basis ([10]).
   - It will include users who will seek addiction treatment, including opioid substitution treatment (OST) (treatment demand), infectious disease testing or routine health check-ups, harm reduction services such as needle and syringe programmes (NSPs), drug consumption facilities, social services (drop-in centres, emergency shelters).
   - This frame offers the advantage of controlled study site conditions (e.g. allowing biological sample collection, increasing the safety of interviewers).
   - Services are not advisable as a single sampling frame in cases where there is low service coverage of the target population or when certain subpopulations are known not to be in contact with the service (e.g. stimulant users are not likely to be in contact with OST).

   Types of services/service providers:

   Service providers may operate differently in different countries and therefore service based sampling can reach different subgroups of drug users. To increase comparability of service-based sampling frames the following characteristics can be taken into account:

   - Type of service provided (impact on efficiency of recruitment, social standing of the respondents, stigmatisation issues):
     - specialised services for drug users (NSP, OST, consumption rooms, addiction treatment) — these can be with lower or higher threshold;
     - social services (accommodation, employment, social benefits);
     - HIV/HCV/HBV or other drug related infectious disease testing services;
     - general health services.
   - Existence of a registry of clients (the list provides a sampling frame from which a random sample can be drawn; it does not have to be a name-based registry).
   - Low- or high-threshold service (low-threshold services must implement some special provisions aimed at facilitating the access of current users to the provision of such services, e.g. a location near street drug markets, no appointments required, extended opening hours at night, etc.).

3. Treatment demand indicator ([11]) — In many European countries an established system exists monitoring drug users in contact with treatment services (out- and inpatient), also collecting a limited set of behavioural indicators on a routine basis. Provides comprehensive national data.
    - Very low cost and appropriate where treatment services are widely provided and easy to access, but not recommended when a large proportion of the population is not in contact with addiction treatment services, and where provision of such services is limited.
    - As such systems rely on clinical reports, data are not directly provided by clients and so may be subject to biases ([3]).
    - The users in contact with addiction treatment may differ from those outside of treatment. In cases where coverage is low it can be advisable to concentrate on those entering treatment to be more representative of the population, but if the coverage is high it may be more practical to include all those currently in the treatment system, and supplement such sampling with other approaches.
4. Closed-settings patients — Drug users found in detoxification, rehabilitation centres. Usually high-threshold settings.
    - Easy access and logistics of the study, but, similarly to other treatment based surveys, there might be problems with the representativeness of the sample.
    - The behavioural indicators should be asked for the time period before admissions (e.g. last 4 weeks before entering treatment), although this might lead to stronger recall bias.
5. Prisons — The prison population constitutes a specific subset of closed settings. The prison population may also be a target population for studying risk behaviours and transmission in prison settings. As not all prisoners are drug users or IDUs it is important to present results separately for ever- and never-IDUs, potentially splitting the never-IDUs into (current) problematic drug users and others.
    - Drug users under arrest constitute a particularly vulnerable population.
    - In some countries prisons may in fact provide access to a quite large proportion of the drug using population depending on how frequently they are arrested.

Additionally, the sampling frame will usually have further restrictions, for example:

- Geographical area — For logistical reasons it may not be possible to run a countrywide survey. Some recommendations on selecting the geographic area are available in (2) and (4). The surveillance plan should take into account possible shifting of the geographical coverage in order to ensure timely detection of outbreaks, or combining areas with one-off assessments (e.g. in the case of outbreaks or indicators of increasing risk) with areas with on-going repeated data collection for long-term comparable monitoring over time.
- Adult population — Often surveys include only the persons legally able to give informed consent (e.g. over age 18); in some countries this might exclude young drug users at high risk, although in most European countries this is unlikely.

It should be noted that the representativeness of the sample might be further limited by non-response:

- Persons *not* consenting to participate.
- Persons *not* capable of participating in the survey and completing the questionnaire (e.g. excluding those intoxicated at the time of interview).

In some studies it has been possible for interviewers to keep track of non-responses by counting non-responders and noting a few characteristics (e.g. gender, estimated age group, observed ethnicity/language).

V. Sampling methods

In practical applications it is never possible to include all members of the target population in the study. Thus the outcomes of the study are estimates of the true values based on a sample of members of this population. These estimates can differ from the real values due to random variation or systematic bias in the recruitment and/or measurement.

Many of the sampling designs developed for epidemiological studies are not easy to implement in the studies concerning drug users, as there usually exists no list to sample from (they are a hard-to-reach, hidden population). The approaches adopted in surveillance and research studies among IDU often rely on convenience sampling although efforts are made to develop techniques allowing more rigorous measurements.

The disadvantages of convenience sampling must be noted:

- no statistical theory to provide an estimate of the indicator and the precision of the estimate;
- likely to suffer from selection biases, which are difficult to describe and quantify;
- less useful to monitor trends or compare across regions or countries as differences may be attributed to differential sampling.

Designing a sampling scheme:

1. Define the TARGET POPULATION, population of interest — the population that the results will be generalised to.

2. Establish a SAMPLING FRAME — the sub-population of the target population, from which the sample will be drawn; it has to be well defined and accessible for recruitment.

3. Take a SAMPLE from the sampling frame – if there exists a list of units in the sampling frame then randomly select a sample of units.

Overview of sampling methods for drug users

- Convenience sampling at services and venues (services aimed specifically at IDUs) — Needle and syringe programmes, substitution programmes, addiction treatment programmes other established health services; more open venues — homeless hostels, drop-in centres and social venues/settings).
  It limits the sampling frame to populations that are easier to access, despite the possibility that these can be different in terms of behaviour and prevalence of infectious diseases from the subgroup not in contact with services. Clients are invited to the study as they attend a service/venue (convenience sample).
- Convenience outreach sampling — Effort is made to recruit the population possibly not in contact with services (community) through reaching them in open settings.
  This may be the first step in cases of very stigmatised hidden populations in places where coverage of services is poor and target group members may be reluctant to provide information on their peers.
- Systematic or random sampling at services or from registries — Some services and treatment centres may maintain a registry of users, from which a random or systematic sample can be taken. Usually, multi-stage sampling would be implemented, by first sampling the services (clusters) and then sampling the target group members from each selected service unit. The target group members selected from the service unit registry may be contacted by the service or recruited at their next scheduled visit if applicable. (This may result in difficulties due to participants not showing up at scheduled visits.)
  In this approach the sampling frame is narrowed to the population in the services, who can differ from the users outside the services. One example would be to implement a (sero-) behavioural survey as part of a treatment demand indicator (TDI) or to use random sampling from any other system registering drug users.
- Snowball sampling — This is a chain-referral method for efficient collection of convenience community sample. Each of the respondents is asked to provide contact details for other target group members, who can then be contacted by researcher.

As snowball sampling requires information to be provided on additional target group members it may not be practical in settings where the target group is highly stigmatised.

- Respondent-driven sampling (RDS) — RDS is a chain-referral method, in which each respondent is asked to recruit another from their social network by providing them with a study coupon, later shown to the research team to enter the study. The technique relies on a dual incentive system, providing an incentive for both participation in the study and for each successfully recruited member of target population.
  RDS (like snowball sampling) takes advantage of social networks and will not work in instances when the population is poorly networked. In order to provide unbiased estimates through RDS the assumptions of the recruitment process must be met and appropriate statistical methods employed. There is no scientific consensus whether RDS works or not in practice to produce unbiased estimates ([12, 13]). However, even if RDS may not provide unbiased estimates and the un-adjusted estimates may be used, it can be used as an efficient recruitment strategy for obtaining a convenience sample.
- Time-location sampling (TLS) — TLS assumes mapping of places of aggregation of the target population (public venues, open settings), assuming that different populations can frequent these at different times. A sampling frame of 'site-time interval' units is constructed, then such units are sampled and then target group members from each units (i.e. those attending at a specific time at a specific site).
  TLS provides access to the target group as long as they congregate at venues that are accessible to researchers. Different patterns of attendance at those places can be corrected for at the stage of analysis.

Comparison of sampling schemes and recommendations

Currently, different guidelines recommend different approaches (summarised in Table 3). A specific study must take into account the characteristics of the local drug scene, coverage of services, the target group they wish to reach and the level of stigmatisation/marginalisation of the target population.

Table 3 — Approaches to sampling recommended by other guidelines.

Guideline	Survey type	Preferred sampling method	Alternative
(FHI, 2000) (3)	Behavioural survey	Time-location sampling (TLS)	Targeted, snowball recruitment at sites
(UNAIDS/WHO, 2011) (5)	Bio-behavioural	Respondent-driven sampling (RDS): starting seeds from community	TLS: at street venues where people inject Convenience: list of treatment centre attendees
(ECDC, 2010) (4)	Behavioural: population reachable in known settings and not severely stigmatised	Service based or venue based, or on entry to addiction treatment depending on local service provision settings and coverage	
	Behavioural: the population is not very well known, not easy to reach, and/or stigmatised	RDS if networked population TLS if not networked population Community outreach if not networked and mapping difficult	
(CDC/GAP, UCSF, 2010) (6)	Bio-behavioural: existing centre that serves IDUs in the area and routinely collects blood	Service based sampling using unlinked anonymous testing (UAT)	
	Bio-behavioural: limited services, IDUs congregate in accessible locations	TLS or targeted sampling	
	Bio-behavioural: limited services, no accessible congregation location or safety issues	RDS	

Selecting the right sampling approach may be of key importance for the use in surveillance. Surveillance requires a systematic, routine approach, for example repeated surveys, based on which major indicator trends should be detectable. On the other hand, surveillance often implies less rigorous approaches and less precise data than well-funded local research studies may obtain. The existing guidelines draw attention to the representativeness of the data, repeatability of the study, costs and simplicity. There is little evidence from the guidelines which of the criteria should be prioritised. Nonetheless, the efforts to achieve a more representative sample may compromise the simplicity, timeliness and sustainability of a system ([14]).

Surveillance criteria

1. Operational simplicity and reasonable cost (the system should be sustainable within public health structure).

2. Picking up new trends (reproducibility over time implies that detected changes reflect trends in population).

3. Validity of information (representativeness of the sample and valid measurement).

In some sites in the United States and Europe (especially Western Europe) the majority of drug users remain in contact with services, and services may provide access to a sufficiently representative IDU group for the surveillance use. In the European setting, especially where service coverage is high, most surveillance systems will opt for service-based sampling as one of the central components of the system. This would ideally include low-threshold services where drug users can attend without appointment and outpatient treatment services but may also include closed services such as inpatient treatment services. In countries where drug users are often arrested prisons may be included as well. Depending on resource availability, studies should consider whether to add community sampling to the system to improve generalisability, for example through RDS (which can be initiated from drug users in contact with the services, and the interviews may even be held at service premises ([15])), TLS or the other community sampling methods (e.g. venue based convenience sampling).

In countries with very low service coverage (e.g. <20–30%), service-based sampling may not be appropriate as the main surveillance tool and there is greater need for community sampling, still potentially starting from users in services and using existing facilities.

Table 4 — Advantages and disadvantages of different sampling schemes.

Sampling scheme	Circumstances when possible	Advantages	Disadvantages
Service, venue-based sampling	Existing services for IDUs such as NSP, OST and other venues well accessible for IDUs, high coverage.	Logistically simpler, lower cost, sustainable.	IDUs frequenting the services may differ from those not frequenting the services. If services and venues have poor coverage and are not well accepted the study may be inefficient.
Convenience community sampling	The population is very hidden and not networked, difficult to map congregation places.	Allows contact with the target population.	Non-probability design, possibly biased but bias cannot be estimated. Reluctance to participate.
Snowball sampling	The population is networked. Not very stigmatised.	Efficient. Potential to reach the hidden subpopulation.	Sampling bias resulting from initial seed selection, overrepresentation of more cooperative individuals and individual with larger contact networks ([16, 17]).
Respondent-driven sampling	The population is networked. Best if average personal network contains >20 target group members. Well-networked and dedicated seeds can be identified.	Controlled conditions at study site. Efficient. Potential to reach the most hidden population. Offers a way to correct for network sampling biases.	Higher cost (incentives, costs of hiring the recruitment place). Bias resulting from not meeting the RDS assumptions. Dependant on willingness of the population to travel to the study site. Difficult to assess response bias ([13, 12]). Disconnected subgroups may be missed. Large design effect (need to increase sample size) ([18]).
Time-location sampling	Relatively open drug scene so that the places where target population congregates can be identified.	A place to interview/take sample may not be available. If assumptions met — assumed to approach a probability sample.	Bias from non-inclusion of important sites, subpopulations not frequenting the type of sites at all, reluctance (disqualification due to intoxication) to participate at venues ([19]). For drug users often the sampling frame in reality is drug users in contact with services ([20]). Difficulties in identification of target group members to be approached. Difficulties in interviewing/testing/collecting biological specimen in field conditions. Safety concerns. Weather factor. Reluctance to disclose sensitive information in public space. Drug users who do not congregate in public are usually missed.
Targeted sampling	Target population well know, described. Places of congregation can be	Responsive to new insights (e.g. inclusion of newly identified	Resources needed to conduct thorough ethnographical assessment makes it difficult to use for surveillance. Difficult to interview/test/collect biological specimen in field conditions. Safety

	identified.	subgroups).	concerns. Weather factor.
		Abundance of qualitative information for interpretation.	Reluctance to disclose sensitive information in public space.
			Low proportion of eligible subjects among initially screened potential respondents ([21]).
			No formal way to assess representativeness, potential bias due to fluctuation of population during different hours at the same site.
			Drug users who do not congregate in public are usually missed.

VI. Formative research

Formative research is usually necessary for all study designs. It informs sampling design (choice of the type, specific procedures) as well as the content of the questionnaire and later interpretation of data. Depending on the purpose of formative research (i.e. what information is sought), quantitative and qualitative methods may be used. The information that needs to be collect at this stage varies according to the selected study design (Table 5).

'**Formative assessment** is the process by which researchers or public health practitioners define the community of interest, ways of accessing the community and the attributes of the community relevant to the specific public health issue.' ([54])

1. Revision of existing data

Formative research may often start with revision of existing data, including a literature search and review. Existing data may provide information on geographical variations in injecting drug use, indicate the groups that may be especially at risk of infections (age groups, gender, place of residence). If prior research has been done, some indication can be found on the potential non-networked subgroups in the population or the specific risks undertaken by the population, and patterns of drug use. It may also be possible to discover if the target population is reached by services that are currently in place.

The following data sources might be of use: data on people living with HIV whose transmission mode was IDU; data on diagnoses of HCV and HBV where the transmission mode was IDU; police data; emergency room admissions data; dependence treatment admissions data; other medical care data (including testing sites data); programme provision/evaluation data; other published and unpublished research; death registries.

In the case of consultations with key informants (expert interviews), sometimes the data would not be collected, or not all of it would be included in a database (e.g. police operational notes, programme provision notes), so the staff may be consulted regarding specific questions.

2. Qualitative methods

Qualitative research is especially useful in order to obtain culturally specific information about the values, opinions, behaviours, and social contexts of particular populations ([22]).

a. Ethnographic research and participant observation: In this method the researcher observes and to a varied extent participates in the activities of the target population in the places where the activities normally take place (community settings). During the observations researchers interact with the members of the population and record their observations.
   Ethnographic observations should be conducted in a systematic way. Locations should be visited at different times of the day and on different days of the week. The researchers should have a list of questions they wish to ask in order to generate information during the sessions. IDU indicators should be collected, for example the presence of used syringes, baggies, balloons or injection works/equipment, as well as behavioural indicators such as coping activity, loitering or commercial sex work. Ethnographic/participant research can be very time consuming, and can often take several months to complete.
b. In-depth interviews with key informants who have knowledge of the local IDU community: The key informants may include, for example, local HIV prevention personnel, community planning group members, law enforcement representatives and current or former injectors. The in-depth interviews are conducted by asking neutral questions to elicit free response from the participant, following up on the response in a non-leading, non-judgmental way. They are usually conducted face-to-face, typed and the transcripts are analysed. The aim is to obtain personal perspectives (feelings, opinions, experiences) on the research subject, especially on sensitive topics.
c. Focus groups with active or former drug users: Focus groups are designed so that researchers can learn the group norms and attitudes for group norms and whether there is any variety of opinions in the target population. One researcher acts as moderator, asking

open-ended questions to the group (8–10 people from target population) while the second researcher takes a record of what is said.

For more practical information on the qualitative research considerations please see (22) and (23).

Table 5 — Information to be obtained by up-front formative research, by the recruitment methods planned for the main study.

Recruitment method	Information necessary	Source/method
Service-based sampling	List of services and operational hours; existence of registries; number of clients; logistics for interviewing/collection of samples.	Revision of existing data (programme data, police data); consultation with key informants.
Time-location sampling	List of venues frequented by the target population.	Revision of existing data (programme data, police data); consultation with key informants.
	Times when target group members attend the venue. Characteristics (e.g. age, drug use patterns) and number of target group members at the venue at different times. Safety issues and logistics for interviewing/collection of samples.	Participant observation.
Respondent-driven sampling	Characteristics of social network formed by IDU (number or ties, existence of disjoint subgroups). Acceptability of the RDS procedures. Selection of seeds. Survey logistics (hours, site), incentive, design of coupons ([24]).	Expert interviews. In-depths interviews.

VII. Study site requirements

The sites where the study can be conducted will differ according to the design of the study. In cases where surveys are carried out among clients of services or patients of treatment centres — and also possibly for RDS — there will be established study sites. However, in TLS and targeted sampling the contact with respondents often takes place at the venues where the target population congregates. This has important implications, for example for the acceptable length of the questionnaire, biological samples collection or the willingness of target group members to take part in the study.

1. Location of the site:

Due to legal issues and/or social stigma it is often undesirable for the drug users to be identified as drug users. The study site should therefore be discrete and, if feasible, not identified by the local community as a site for drug users (e.g. avoid large signs).

The location of the study site should not interfere with local community habits, (e.g. avoid creating increased activity at late hours, which may cause disturbance in residential districts).

The site should be accessible, i.e. easy to find and reach by public transport. A long distance between the site and areas where drug users live/congregate has been shown to be a significant barrier to participation in the study.

Study sites should not be located near law enforcement agencies, as this could discourage users from attending.

The safety of the site and the area where is it located should be also considered. Safety issues may become problematic especially for TLS or targeted sampling.

2. Rooms/space at the site

The study site should have a waiting area, interview room(s) or other private, quiet space to conduct interviews, a biological sample collection area and a bathroom. Participation in the study should be pleasant — participants should be welcomed as they enter, and, if affordable, refreshments should be available in the waiting area.

Requirements regarding the place where biological samples can be collected are often formalised in local regulations. Collection of blood through venepuncture may be associated with the most restrictive requirements. Additionally, collection of some specimens may require hiring a health care worker. Some types of biological samples cannot be stored at room temperature before transporting to the laboratory.

Some space has to be dedicated to storage of study materials. If this includes biological samples the site should a refrigerator or freezer. The completed interviews should be stored in a place with restricted access (e.g. a locked cupboard).

When using TLS recruitment, the possibility of hiring an ambulance/van should be considered. Since the interviewing space is usually organised in a public place (e.g. bar/restaurant, car), the conditions may be suboptimal (not sufficient light, noise), which means the questionnaire should be short and printed in sufficiently large font.

3. Informing police, city authorities and other institutions

Police, law enforcement agencies, local authorities and neighbouring businesses should be informed of the study and location of the study sites, and if possible be invited to be co-responsible (e.g. as part of an advisory board or by regularly informing them on progress, perhaps through emails). This will prevent the investigation by law enforcement of the unusual activities connected with the study and allow them to manage potential complaints from the community.

4. Staff safety

Security procedures must be in place at the study site. Implement procedures to prevent large numbers of clients from congregating at the study site. People who are very intoxicated or who behave in a threatening way should not be allowed into study site.

The procedures for exposure to potentially infected blood should be clarified together with the responsibilities (including financial obligations, insurance) of the study coordinator in case there is a need for post-exposure prophylaxis.

5. Using existing premises

Sites that are established in existing services, especially those targeted at drug users, offer the advantage of staff trained in contacting the target population, existing safety procedures, existing facilities to collect biological material and private space for interviews.

The disadvantage may be that the place is associated with drug users and serves a specific subgroup of users (e.g. the most marginalised group), which would discourage other subgroups from participating.

Study site selection considerations are provided in (25).

VIII. Principles of laboratory diagnoses for HIV and viral hepatitis

Standard diagnostic tests and procedures will in most cases also be relevant for surveillance use. The procedures typically rely on screening assays later confirmed with another (more specific and usually more costly) test. The full diagnostic process may not be necessary from the epidemiological point of view, especially if the prevalence is high. Similarly, the less precise tests may be selected for reasons of simplicity of use and costs (e.g. biological specimen other than blood). Some of these tools are available solely for research purposes, but not licensed as diagnostic tools. However, for bio-surveys the recent tendency is to consider it ethically important to always provide individuals with a test result, and therefore diagnostic and confirmation tests should be considered.

HIV infection

Step 1. Screening (first line) assay

Current screening assays rely on the detection of antibodies to HIV or the antibodies and antigen p24 (IVth generation tests). At present, the IVth generation assays are commonly used due to a shorter window period (i.e. the time after infection when the test is still negative) ([26]). Depending on the settings, conventional or rapid (Point Of Care) tests may be used. The biological sample required is typically blood (venous or capillary), oral fluid or urine. Currently used laboratory screening assay have sensitivities between 99.8 % and 100 % and specificities up to 99.8 % ([27]).

Step 2. Confirmatory (supplementary) assay

The confirmation assays may be based on confirming the presence of antibodies (Western Blot, WB; line immunoassay, LIA; indirect immunofluorescence assay, IFA) or detection of viral genetic material (nucleic acid amplification methods, NAAT, most commonly polymerase chain reaction, PCR). These tests are always laboratory based.

The actual diagnostic algorithm in place (using particular tests, especially rapid tests, repeating tests, two samples requirement) may vary and countries may adopt a certain algorithm; the work on an updated unified algorithm is ongoing ([28]). Apart from laboratory procedures, it is considered good practice to perform pre- and post-test counselling. Such counselling covers individual risk assessment, benefits of testing, follow-up issues such as partner notification and linkage to care ([26, 29]).

Interpretation of results

1. The window period for tests based on antibody detection is on average 2–3 weeks (almost everybody seroconverts by 12 weeks), the time it takes for the body to produce detectable level of antibodies after infection. The tests, which detect p24 viral antigen, have a window period of only several days to 2 weeks and the tests detecting the presence of viral genetic material 3–5 days less. In cases of early infection detected with IVth generation assay, confirmation assays based on antibody detection are of less use. In these cases NAAT methods or p24 neutralisation assays are used for confirmation ([26]).
2. Both confirmation of antibodies and genetic material provide evidence of active HIV infection in adults.
3. Attention should be paid to the choice of assays in cases where there is a significant proportion of HIV-2 or HIV-1 subtype O, as some tests may be suboptimal/not able to detect such infection. These viruses are more common among migrants from Africa.
4. If the prevalence in the target population is high (>10 %) the positive predictive value (per cent of positives confirmed by confirmatory assay) of screening assays is high and the screening results are sufficient for epidemiological purposes. However, in cases where there is low prevalence it is recommended that only the confirmed results are reported.

Additional tests of epidemiological importance

Further tests of epidemiological importance may include subtyping, testing for resistance to monitor the level of transmitted resistance in treatment of naïve patients and recent infection testing algorithms (RITA), which allow positive samples to be classified as coming from patients with recent (approximately <6 months) or long-standing infection ([30]). RITA tests are currently mainly used for surveillance purposes (i.e. the results are not communicated to the patients) and enable HIV incidence to be estimated ([31]).

HCV infection

Testing algorithm

HCV testing is also a process based on a series of screening and confirmatory assays from blood samples. The first step assays now most commonly in use are the third generation enzyme immunoassays with improved accuracy (specificity >99 %) and a window period of 1–10 weeks from exposure. Screening assays are usually laboratory based, although there exists one rapid test approved for diagnostic purposes in the EU (CE-marked), that can be also done from oral fluid ([32]).

The gold standard to confirm active infection is the nucleic acid test for detection of HCV RNA (pcr). Recently, a new test detecting HCV core antigen was developed that can also confirm active infection ([33]). Presence of HCV specific antibodies can be confirmed by recombinant immunoblot assays or Western blot test.

Interpretation of results

1. Recognition of HCV infection has to take into account that, unlike HIV, the HCV virus can be eliminated either naturally or in consequence of treatment. Antibodies to the virus, which are detected by the first step (screening) assays, usually persist even in cases of resolved infection ([34]).
2. In some cases, infection may persist in the liver even though both antibodies and serum HCV RNA tests are negative (occult infection) ([35]).
3. Screening tests may have lower sensitivity in haemodialysis and immunocompromised patients.
4. In low prevalence settings (<10 %) in testing for epidemiological purposes the screening assays would require a confirmatory test. However, it is now recognised that in cases of a high signal in the screening assay the positive result is confirmed in >95 % of cases ([36]).

Additional tests of epidemiological importance

At present, diagnosing acute infection if seroconversion is not documented by a negative result followed by a positive one remains a challenge.

Further tests of epidemiological importance may include determination of genotype, which is important for treatment outcomes. Genotype analyses sometimes allow the origins of the virus in an epidemic to be pinpointed, although this may be of limited use for prevention purposes. A virus of a specific (e.g. non-national) origin may circulate among both nationals and non-nationals independently of its original introduction.

HBV infection

HBV infection in adults is most commonly an acute illness, which resolves spontaneously. However, markers of past infection can be found in the blood. In 5–15 % of cases the virus is not eliminated from the body, leading to chronic hepatitis B, which can be diagnosed based on blood tests. In significant proportion of cases with apparent resolved infection the virus continues to replicate in the liver (occult HBV infection).

Laboratory diagnosis of HBV and its clinical stages is complex. For surveillance studies usually the following laboratory parameters are used: HBsAg, anti-HBs, anti-HBc, anti-HBc IgM. Table 6 shows the interpretation of laboratory results.

Table 6 — Interpretation of laboratory results of HBV infection ([37])

HBsAg	Anti-HBs	Anti-HBc (total)	Anti-HBc IgM	Interpretation
-	-	-	-	Susceptible
+	-	+	-	Active infection
+	-	+	+	Active infection, most likely acute
-	+	-	-	Uninfected, immune due to vaccination
-	+	+	-	Most likely resolved infection (immune)
-	-	+	-	Unclear: resolved infection (most common); false-positive anti-HBc, thus susceptible; low level chronic infection; resolving acute infection

Further tests may include genotype testing. There are other serological markers of HBV infection of value in the clinical management, such as HBe-Ag or HBV-DNA that remain outside the scope of this document.

Tests available from different biological samples are summarised in Table 7. For more details on how to select a test and collect biological samples refer to Annex 2.

Table 7 — Tests available from different biological materials.

Biological material	HIV tests available	HCV tests available	HBV tests available
Whole blood	Rapid HIV tests (antibody tests and antibody/antigen p24 test)	Rapid anti-HCV test	Rapid HBs antigen test, antibody tests less sensitive ([38])
Serum/plasma	Rapid HIV test Laboratory based screening assays (antibody and antibody/antigen p24) Laboratory based confirmation serologic assays Molecular tests	Rapid anti-HCV test Laboratory based assays Laboratory based confirmation serologic assays Molecular tests	Laboratory based assays — antibody tests and HBs antigen Molecular tests
Dried blood spots (capillary blood)	Laboratory based screening assays (antibody and antibody/antigen p24) Laboratory based confirmation serologic assays Molecular tests	Laboratory based assays Laboratory based confirmation serologic assays Molecular tests	Laboratory based assays — antibody tests and HBs antigen Molecular tests
Oral fluid	Rapid HIV antibody test, laboratory based screening	Rapid HCV antibody tests Laboratory HCV test (also	HBs antigen test (also with saliva)

	assays Laboratory-based WB	with saliva)	Antibody tests are not sensitive enough
Urine	Rapid strip HIV antibody test (rarely used)	Not available	Not available

X. Questionnaire design and administration

The questionnaire is the main measurement tool in behavioural studies. Questionnaire and questions should be designed to reduce bias due to non-response, question refusal, misinterpretation of questions or differential administration of questionnaire by the interviewers. Therefore the researchers may often decide to go through a lengthy process of validation and testing of a questionnaire and interviewer training before a survey is implemented. Generally, a questionnaire should be at least informally reviewed by some target group members.

An example questionnaire can be found in the *DRID Guidance Module: Behavioural indicators for people who inject drugs*, which includes questions that enable internationally adopted indicators for IDU to be constructed.

Questionnaires in surveillance

1. Harmonisation with other monitoring systems as well as with the previous rounds of the survey should be assured.
2. The use of already developed standardised questions shortens the testing phase.
3. Accuracy of translation and cultural context must be kept in mind when using questions developed internationally.
4. Questions adopted for DRID monitoring are available in *DRID Guidance Module: Example Questionnaire*.

More information on questionnaire development can be found, for example, in (39) and (40).

- General rules for designing a questionnaire:
    - All information necessary to fulfil the study objectives should be collected, but unnecessary questions should be avoided (i.e. the use of each question in the final report should be clear).
    - Questionnaires that are very long may result in a lower response rate and lower quality of data, especially if data are collected in field conditions.
    - The questions used should be validated and pre-tested.
    - Each question should be designed to obtain one piece of information. Questions should be unambiguous (who, what, when, where). Open-ended questions should be avoided.
    - The questionnaire should start with a sentence explaining the purpose of the study and data use.
    - The section dealing with the key issues (e.g. exposures of main interest) should be asked first and classifying information (e.g. demographics) should be moved towards the end of the questionnaire. The most sensitive questions should not appear at the beginning.
- Types of questionnaire:
    - Self-administered questionnaire or questionnaires administered by interviewers:
        - Self-administered questionnaires should be simple and short. They may be more useful when asking sensitive questions.
        - Interviewer-administered surveys allow for questions to be clarified, additional techniques can be applied (showing additional materials, probing, aided recall), the questions can be arranged in (alternative) sequences asked only when applicable. There is also a better control over completeness of responses.

- Form of the questionnaire:
    - Paper or electronic format questionnaires may be used. Electronic questionnaires offer the advantage of automatically displaying the inconsistent or not completed responses and reduce data-entry errors.
    - Depending on the device and if the data are entered by the interviewer (personal interviewing or telephone interviewing) or by the respondent the following abbreviations for electronic formats are in use: CAPI: computer assisted personal interviewing; WAPI: web assisted personal interviewing; CASI: computer assisted self-interviewing; CAWI: computer assisted web interviewing; CATI: computer assisted telephone interviewing; TAPI: tablet assisted personal interviewing; TASI: tablet assisted self-interviewing; SAPI: smartphone assisted personal interviewing; SASI: smartphone assisted self-interviewing.
- Testing questions and questionnaires:

  Each question should be tested. However, additionally there might be some contextual effects depending on where the question is placed in the questionnaire.

  The testing phase can include the following:
    - Expert review is often the first step in questionnaire testing and involves experts working in the field experienced in conducting similar surveys.
    - Interviewer and target group focus groups
        - The questionnaire is administered first to interviewers and then to a small sample of target group members.
        - The following issues should then be discussed during focus groups: general impression of the question, clarity of wording, interpretation of the question by respondents, appropriateness of response categories, ordering of the questions in the questionnaire (different orderings can be used and responses compared).
    - A cognitive interview is conducted with a limited number of target group members
        - Cognitive phases of reaching the answers are solicited through thinking out-loud, paraphrasing the question, listing information used to reach the answer.
        - Cognitive interviews allow researchers to study the understanding of the questions, interpretation of the terms used, of response categories, the feasibility of recall and if questions are sensitive. Alternative wordings can be tested.
    - The piloting phase is the last phase of questionnaire development (after corrections from the pre-testing phase) and should be conducted under similar conditions to which the survey will be implemented in practice.
        - Verifying assumptions used in sample size calculation (frequency of exposures, response rate), acceptability of the study, rate of question refusals.
- Interviewer training aims to minimise differences between interviewers in the way the survey is conducted that can potentially introduce measurement bias.
    - It should include the overview of the study, including objectives and procedures (recruitment, questionnaire, biological sample collection, collecting results), review of all the questions, safety procedures and procedures for unexpected situations, monitoring, logistics and administrative issues. Importantly, interviewers should feel

comfortable about all the questions (e.g. understand all the terms used, understand where special techniques are required, such as probing or memory enhancement techniques).

- Interviewers should be trained to deal with foreseeable reactions of the respondents, such as a critical or overly enthusiastic attitude to the whole study, interrupting, question refusals, expressing doubts, responses not included in the list.
- Interviewers should recognise not to express personal feelings and opinions and to phrase the questions exactly as formulated in the questionnaire.

XI. Ethical considerations

Research concerning human subjects (including studies concerning human health-related behaviour in a variety of circumstances and environments ([41])) should be based on the main principles outlined in the Belmont Report ([42]), Declaration of Helsinki ([43]) and CIOMS/WHO International Ethical Guidelines for Epidemiological Studies ([44]) (see box). Some issues specific to drug use research are presented in (45).

Ethical principles:

Respect for persons — autonomous decisions and protection of those with diminished autonomy.

Beneficence — avoiding harms; minimising risks and maximising benefits.

Justice — those who bear the burden of research should be the ones who will benefit from its results.

All bio-behavioural studies must undergo review by medical ethics committees. Specific requirements may depend on local regulations. Some common problems pertinent to studies among drug users are outlined below.

Informed consent — A process that involves three elements: information, comprehension and voluntariness.

- Information for the potential participant: This covers the research procedure, research purpose, risks and anticipated benefits, potential secondary use of data and specimen, person responsible for the research and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research ([43, 41, 44, 51]).
- Coercion: This may occur if there is a dependency relationship between the potential participant and the recruiter, or if incentives are excessively high. Appropriate incentives are acceptable ([46]).
- Oral or written consent: As a rule, informed consent should be documented by a signed form. An ethical committee may approve oral consent in cases of research carrying no more than minimal risk to the subjects. The requirement for signed consent may be waived in cases where the existence of signed forms may threaten subjects' confidentiality. In such cases it might be considered appropriate for the interviewer sign on the questionnaire that the informed consent procedure has been followed.

Vulnerable population

- Drug users as a population with diminished autonomy (i.e. with diminished capacity to take independent decisions due to, for example, economic or legal drug-use related factors): Special attention needs to be paid to voluntary participation in research, especially in settings like prisons. For some research additional procedural protective measures may be required ([41]).
- Protecting privacy and confidentiality of the subjects at the time of interview, testing and data processing: The potential harms caused by a bio-behavioural study include psychological distress, legal problems or economic loss. Harms and benefits at the level of the individual participant are given special weight. However, risks to communities should be also considered, such as stigmatisation of the group due to risk behaviours or high prevalence of infectious diseases.

Benefits to the community

- The participants should be provided with benefits such as test results, information on infectious diseases and counselling, and referral to appropriate services.
- The current guideline is that the participants have the right to be informed about the general findings of the study and any information that relates directly to their health (i.e. the results of tests) ([44]).

Specific considerations in chain-referral studies ([47])

- Snowball recruitment may require disclosure of information about a third party without their consent, which raises concerns. A solution could be providing the respondent with an information sheet and let the respondent contact potential nominees.
- Discovering serologically discordant partnerships.
- (Especially in RDS) coercion by peer recruiter. A solution is modest remuneration, limited number of coupons, obtaining informed consent by the staff at the start of the interview.

XII. Aspects of statistical analysis

Database and data management

When carrying out repeated surveys, especially when run through services, a professional database should be considered to allow more efficient data storage and management and possibly data entry/uploading through dedicated web tools. The design of the database and data entry process can have an impact on the overall quality of the data. Resources allowing, it is recommended that data is double entered.

For one-off studies there exists readily available software, such as Access or Epi Info (www.cdc.gov/epiinfo/), allowing ad-hoc simple databases to be designed, with an electronic entry form. The process is described in, for example, (5) and (48).

Hints for creating a database and entering data:

- A code book with a description of each field (variable) and coding should be created.
- Each field should contain a single piece of information (an answer to a single question or well-defined indicator).
- Responses should be coded (according to a list to select from, provided on the form), question refusal and missing data should have different codes, additional fields for comments should be available (see also DRID Module Example Questionnaire).
- Build in checks for consistency (implausible values, e.g. extreme age values, dates sequences, contradictory answers).
- Include required fields, especially for 'administrative' variables (e.g. date of interview).
- Train data entry staff.

Overview of analysis process

Epidemiological measures

In surveillance studies we focus on occurrence and associated factors of diseases (infections). The basic epidemiological measures, which we usually aim to estimate from studies, include:

1. Measures of frequency of disease, infection or another characteristic of interest — prevalence, odds and incidence
   - The incidence of infection gives information about the current risk of contracting the disease. Typically it is estimated from cohort studies of negative users. These studies are often logistically difficult to establish and are time and resource consuming. Statistical and mathematical modelling can help estimating incidence from other types of data.
   - Prevalence is an outcome of both the risk of infection and duration of disease. High prevalence may persist for many years after an outbreak.
2. Measures of association (of disease with an exposure) — relative risk (RR) or risk ratio, prevalence ratio (PR) and odds ratio (OR).
   - The best measure of association (of the effect of exposure on the outcome) is relative risk. However, it is typically calculated only from cohort studies.
   - The prevalence ratio is calculated from cross-sectional studies and the odds ratio can be calculated from case-control studies as well as from cohort and cross-sectional studies.
   - The odds ratio approximates the RR if the prevalence is low (<10%).

***Epidemiological measures**:*

Prevalence: $P = \frac{number\ of\ existing\ cases\ of\ disease\ at\ a\ given\ time}{population\ at\ a\ given\ time}$

Incidence: $I = \frac{number\ of\ new\ cases\ of\ disease\ during\ observation\ time}{population\ at\ risk\ of\ disease\ at\ the\ beginning\ of\ observation\ time}$

Odds: $O = \frac{probability\ of\ beeing\ a\ case\ in\ a\ population}{probability\ of\ not\ being\ a\ case\ in\ a\ population} = \frac{number\ of\ cases}{number\ of\ non-cases}$

Relative risk: $RR = \frac{I\ among\ exposed}{I\ among\ not\ exposed}$

Prevalence ratio: $PR = \frac{P\ among\ exposed}{P\ among\ not\ exposed}$

Odds ratio: $OR = \frac{odds\ of\ disease\ among\ exposed}{odds\ of\ disease\ among\ not\ exposed} = \frac{odds\ of\ exposure\ among\ cases}{odds\ od\ exposure\ among\ non-cases}$

Analysis process

1. Descriptive analysis: This includes summarising distributions (frequencies and percentages) of responses or laboratory results for categorical variables and typically calculating mean and median values with standard errors and interquartile ranges for numerical variables.
   - Measures of frequency of outcome are estimated (e.g. prevalence of infection) as the sample proportion for simple random samples or using an estimate appropriate for the sampling design.
   - Calculation of internationally agreed indicators is recommended (including the EMCDDA behavioural indicators in the *DRID Guidance Module: Behavioural indicators for people who inject drugs)*.
   - The indicators could then be disaggregated (calculated separately) by gender, age group, region (and other potentially important groupings such as by drug of choice, injecting drugs status, etc.).

2. Univariable analysis (US sources often use the term 'bivariate'): During this step we examine whether there is an association between two given variables (usually outcome and exposure).
   - If one of the variables is categorical (i.e. defining groups described by each category) then these groups are compared in terms of means of numerical variable (parametric and non-parametric tests) or distribution of another categorical variable (testing for independence of the variables). In cases where there are two numerical variables a measure of correlation can be calculated.
   - This analysis can be performed in groups (strata) defined by a third variable. Tests are available to see if the association differs by strata.
   - For binary outcome variables the effect size of the association can be estimated (estimating RR, PR, OR).
3. Multivariable analysis: In multivariable analysis we are able to study independent effects of several explanatory variables (independent variables, predictors) on the dependent variable (response, e.g. presence of infection).
   - An association observed in a multivariable model is adjusted for possible confounding effects of other factors in the model.
   - Adding interactions between variables allows for a differential effect of a studied predictor by a third variable (effect modification).

For guidelines in basic statistical methods, including the flow chart of tests to use, see, for example, (49) (50) or (3).

Interpretation of results

1. Role of chance: Observed differences can be due to chance and the statistical tests aim to identify whether the difference is likely to be real ('statistically significant' results) or not. For small p-values (conventionally <0.05) we conclude that data do not support the hypothesis that there is no difference and we accept the alternative that there is a difference. There are two types of error with respect to true population values when performing a statistical test: either there is no real difference but the result is 'significant' (referred to as type I (α) error), or there is a real difference but the result is 'insignificant' (type II (β) error). The probability of the first error is determined by the researcher, by selecting the cut-off p-value, whereas the probability of the later depends, among other things, on the sample size and is useful in sample size estimation.
2. Confounding and bias: The association may be distorted by various systematic errors of sample selection (selection bias) or measurement of exposure or disease (information bias). Confounding can result if there exists a factor that is associated with exposure that also has an impact on the risk of disease. For example, a higher prevalence of infectious diseases among a population in treatment could be explained by a longer injecting career in the population. Confounding and bias are discussed in, for example, (3).
3. Causality: Even a valid statistical association does not imply causal association of an exposure with the outcome. Additional criteria have been developed to make the causality claim ([51]).

Survey data analysis

The sampling design has implications on the choice of statistical techniques. The majority of the techniques have been developed for simple random samples and when used for more complicated designs may give biased results ([52]).

Analysis of TLS data

Methods for random samples are not appropriate for TLS data due to the following features of the design:

- Cluster effect (time-location clusters are sampled) — generally this design increases uncertainty.
- Heterogeneous probability of being sampled (due to different frequency of attending sampled venues) can affect both the estimate and the standard error.

Therefore weighting should be considered, such as in (53), in addition to accounting for clustering. The weighting also depends on the actual number of the persons enumerated during the sampling events and the number of interviews completed ([54]).

Analysis of RDS data

RDS data require specific analysis methods that account for the sampling process through social links using a Markov chain model of the recruitment process.

- Necessary personal network size information: the number of friends from the target group that the participant is likely to meet during the time given for recruitment (typically the

The RDS assumptions:

The network is connected (i.e. there is a 'chain' of social ties to reach any member of the population, within the number of waves feasible during the study).

People can accurately report their drug using network size.

The sample size is small compared to the size of the target population.

Recruiters recruit from their personal network at random (and the non-response is not differential).

The recruitment is non-differential (equally efficient across different groups).

number of such friends that the participant in fact met during the past one to several months is asked for).

- The software specific to RDS data is RDSAT, available at www.respondentdrivensampling.org.
- If the theoretical assumptions are met (see box), the recruitment process reaches equilibrium (in practice, the majority of the sample should be recruited in long chains) and the homophily is equal across groups, the RDS estimators are unbiased ([55]).

Apart from difficulties meeting the theoretical assumptions of the recruitment model, there are several shortcomings of the analytical tools available at present, such as no well-developed convergence diagnostics, limitation of the proper RDS inference to estimating population means, and no techniques to correct for non-response bias ([56, 12, 13]).

Network data analysis is described in (57).

HIV incidence estimation from incidence testing in biological prevalence studies

For HIV seroprevalence studies there is also the possibility to estimate incidence. The estimation relies on an additional testing algorithm (RITA, recent infection testing algorithm), which allows infections to be differentiated as recent (with a test-specific window period, typically approximately 6 months) or longstanding. Formulas and further guidelines, including guidelines on sample size estimation and false recent rate adjustment, are available from the WHO HIV incidence website ([58]). Prevalence among new injectors (<2 years from first injection) may also provide an estimate of ongoing transmission, although the incidence shortly after initiation of injecting may be higher than at the later stages.

Sample size calculation

The sample size should be determined based on the main characteristics to be measured (e.g. prevalence of DRID diseases) and the acceptable standard errors.

Often there is not sufficient evidence to assume one plausible value of prevalence and several reasonable values should be tried to gain insight into how large the sample should be in different scenarios.

The sample size estimates will be different in case of more complex sampling designs, including cluster and stratified samples as well as the ones used in chain referral and TLS techniques. In those cases the formula for the sample size contains an additional term — the design effect (DE) ([52]) (see box below).

Depending on the particular design, there are formulas to calculate the design effect (DE). However, it is often only possible to calculate it in the post hoc analysis of the complex sample. Some guideline is available through past experience.

Wejnert et al. recommend that the DE for RDS studies should be at least 4 (updated from DE=2 recommended previously) ([18, 59]).

***Formulas for sample size (N) calculation**:*

Random sample: $N = \frac{P(1-P)}{(SE(P))^2}$

Complex sampling design: $N = DE\,\frac{P(1-P)}{(SE(P))^2}$

Where:

- P is the assumed proportion of population displaying a certain characteristic (e.g. expected based on prior evidence of prevalence of disease).
- SE(P) is the acceptable standard error.
- DE is the design effect.

XIII. Bio-behavioural studies as a surveillance tool

Bio -behavioural studies used in surveillance should be planned in a way that meets the basic assumptions of a surveillance system. This is defined usually as 'the on-going, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health. Data disseminated by a public health surveillance system can be used for immediate public health action, programme planning and evaluation, and formulating research hypotheses' ([60]).

When bio-prevalence studies are used for surveillance they should provide valid information (be representative) but also be repeatable over time (i.e. the same target population should be reached and measurements should be reliable), to assess trend over time ([5]).

'It is important to remember that surveillance data will not be used if:
• the study is too time consuming (e.g. sample size too large);
• the study is too costly to repeat;
• the analysis is too complicated for local health departments to routinely do;
• the analysis is too complicated to understand for those who need the data.' ([54])

Adapting to local context

In order for the surveillance efforts to be sustainable it is advisable to establish the system within the administrative framework of the country responding to local needs, addressing information gaps and using existing infrastructure.

The possible links and triangulation of data with other, existing or planned systems should be also discussed in order to maximise the use of the data ([61]). In European countries there exist case-based surveillance systems for infectious diseases including HIV, HCV and HBV infections. Other systems may be based on cohort studies of clients of services targeted at drug users, testing services, treatment demand monitoring systems. Guidelines on how to use data in the framework of second generation surveillance are available from UNAIDS/WHO and ECDC.

Repeated studies, geographical coverage

In order for the method to be a good surveillance tool it should provide consistent estimates over time; i.e., changes in estimates should reflect real changes in the epidemiology of infectious diseases and risk behaviours among the population of interest. This issue has not been well recognised but there are data to suggest, for example, high variability in repeated RDS studies ([62]) and differential results depending on study settings in service bases studies ([63]).

The frequency of the bio-behavioural surveys will have to be adapted to the local situation; for example, in cases of increased transmission an additional study may be planned. It should be noted that small changes in behaviour and/or prevalence may be difficult to detect (i.e. require large sample sizes) and may not be so important from the public health point of view. Despite smaller sample sizes, changes in prevalence may be detected more easily in some subgroups, for example among new injectors, a proxy indicator for incidence ([64]).

IDUs tend to form local networks, which may have different norms for risk behaviours and different levels of drug related infectious diseases. The differences in prevalence between sites are often quite marked. Therefore multiple locations have to be sampled. The surveillance plan should include locations where there is evidence of injecting drug use (large networks) even if there might still not be any evidence of increased infectious disease transmission, although certainly the areas with highest transmission need to be included ([65]). If there is a limited budget more frequent studies could be carried out in areas with higher risk and less frequent ones in areas at lower risk.

The agreed assessment indicators of implementation of DRID at the country level set out the minimum requirement of collecting biological markers prevalence data at least once per 3 years. This should be a reasonable target in cases of multisite studies. If studies involve changing geographic areas it might be acceptable to include each area at least every 4–5 years.

Comparability between countries

Comparability of data between countries is one of the reasons to attempt harmonisation of surveillance methods across the countries. In terms of repeated surveys this process is particularly difficult and will depend on health care organisation, coverage of services, legal framework, available resources, etc. As a first step it is proposed that the same behavioural indicators (e.g. harmonising the recall period, see *DRID Guidance Module: Behavioural indicators for people who inject drugs*) and serologic markers should be used.

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Abbreviations

AIDS	acquired immune deficiency syndrome
CAPI	computer assisted personal interviewing
CASI	computer assisted self-interviewing
CATI	computer assisted telephone interviewing
CAWI	computer assisted web interviewing
CDC	Centers for Disease Control and Prevention
CIBERESP	Consortium for Biomedical Research in Epidemiology and Public Health, Spain
CIOMS	Council for International Organizations of Medical Sciences
DBS	dried blood spots
DE	design effect
DRID	drug-related infectious diseases
ECDC	European Centre for Disease Prevention and Control
EIA	enzyme immunoassay
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
FHI	Family Health International
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
IDUs	injecting drug users
IFA	indirect immunofluorescence assay
LIA	line immunoassay
MSM	men who have sex with men
NAAT	nucleic acid amplification methods
NIDU	non-injecting drug users
NSP	needle and syringe programmes
OR	odds ratio
OST	opioid substitution treatment

PCR	most commonly polymerase chain reaction
PDU	problem drug users
PR	prevalence ratio
RDS	respondent-driven sampling
Reitox	Réseau Européen d'Information sur les drogues et les Toxicomanies (European Information Network on Drugs and Drug Addiction)
RITA	recent infection testing algorithm
RR	relative risk
SAPI	smartphone assisted personal interviewing
SASI	smartphone assisted self-interviewing
ST9	Standard Table 9
STI	Sexually Transmitted Diseases
TAPI	tablet assisted personal interviewing
TASI	tablet assisted self-interviewing
TDI	treatment demand indicator
TLS	time-location sampling
TSS	temporal spatial sampling
TVS	time, venue sampling
UMHRI	University Mental Health Research Institute, Greece
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
VDT	venue, day, time sampling
WAPI	web assisted personal interviewing
WB	Western blot
WHO	World Health Organization

Annex 1. Sampling methods — details

The methods to take a sample from a population can be broadly classified as probabilistic and non-probabilistic sampling schemes. The probability sampling as opposed to convenience sampling is a procedure in which each individual from the sampling frame has a defined (known) probability of being included in the sample, although these probabilities do not have to be equal. The advantage of these sampling schemes is that there exist statistical methods to produce an unbiased estimate of the population value together with confidence interval (i.e. estimation of possible random error). However, it may not be appropriate to use statistical methods developed for simple random samples to analyse more complex designs.

1. Traditional probabilistic sampling designs and their application in IDU studies

Random sampling and systematic random sampling

Simple random sample: All individuals in the sampling frame have the same probability of being selected.

a. The list of individuals in the sampling frame is created. From this list individuals with numbers randomly picked are selected for the study. The numbers are drawn at random by a random numbers generator available in practically all statistical packages.
b. The list may be available from the beginning or we may assume it will be formed by the order of clients arriving at a certain service/admitted to hospital, etc.
c. The example of use may be sampling of clients of a drug treatment centre, which can provide a list of patients; or sampling of clients of a service numbered by the order in which they are encountered or arrive at the service premises. Clients with pre-sampled numbers will be invited into the study. As a result a random sample of clients of one service is obtained. If treatment services in a region or country keep a centralised database with identification of individual clients it may be possible to obtain a random sample of clients of services in that region/country.

Systematic random sampling: taking every i^{th} individual

a. An ordered list of units (clients) is created and the 'sampling interval' *i* defined (by dividing the number of units in the sampling frame by the desired sample size). The first individual is randomly selected and then starting from this individual every i^{th} individual from the list.
b. This design can provide biased results in cases where the clients come in 'cycles' in relation to certain characteristics, for example if working clients are scheduled in the afternoon and the cycle of sampling selects always the clients from the morning.

Random or systematic sampling in the field conditions: Recruiting people from open space will not allow a sampling frame to be created beforehand.

a. To avoid bias from an interviewer selecting a specific type of respondent due to convenience, there are methods of creating a sampling frame directly at the sampled location during the recruitment episode (enumeration).
b. Enumeration requires the counting of all persons crossing an imaginary line agreed at the beginning of sampling event (line-based enumeration), or entering a defined area (area-based enumeration), depending on the characteristics of the particular sampled location. Alternatively, if members of population are not moving around, the imaginary line is between two interviewers walking across the area (moving line enumeration).
c. In practice, consecutive members of target group enumerated are approached, depending on the availability of interviewers (for details see (54)).

Cluster sampling and indirect sampling

Cluster sampling: The sample frame contains clusters instead of individuals.

a. Clusters are generally groups of individuals from the target population who can be found and recruited in one place. It is assumed that each individual belongs to a cluster, but only to one cluster ('fixed population').
b. Simple random sample or systematic random sample of clusters possibly weighted by the cluster size (probability of selecting a cluster is proportional to the number of target population members associated with the cluster) is taken and all individuals or a sample of individuals from a cluster are invited to a study. A step-by-step guide on how to design cluster sampling is given in (3).
c. In order to assure a valid cluster sample a relatively large number of clusters should be included. It is recommended that the sample should include at least 30 clusters. This may be not logistically feasible but the aim should be to have a smaller cluster size and larger number of clusters.
d. An example of clusters is districts/areas of residence. Clusters of a drug using population in treatment (or in contact with services) can be treatment units (including methadone, maintenance services or general practitioners) or other services for drug users (such as accommodation services, low threshold services including needle exchange programmes and outreach activities) at a particular time.

Indirect sampling: In practice a drug user can use more than one service, and so belong to many clusters at the same time, and thus their inclusion probability may be variable depending on the pattern of use of the services. This sampling scheme is, then, better defined as indirect sampling (i.e. we sample from a list of units or individuals that are related to members of our target population in some way which allows to access the members of target population) ([66, 67]).

Multi-stage designs

In practice, due to logistics reasons or practical possibilities of developing a sampling frame, we sample in stages. For example we first sample treatment institutions and then at each unit we take a random sample of patients. Often we also define strata or subgroups to sample from. Such strata can be created, for example, based on geographic location (regions) or characteristics of participants — for example, age groups. Next we sample separately within a stratum.

Implicit stratification may be achieved in systematic random sampling by first sorting the list (sampling frame) by the stratification variable.

2. Sampling schemes specific for hard-to-reach populations

Injecting drug use is often an illegal or stigmatised behaviour and therefore the population is not easily accessible for studies ('hidden'). An exception could be countries where the coverage of services is high, as the majority of the IDU population might attend one or more services, in which case venue-based sampling might be quite sufficient to reach a representative sample of the population. However, in cases of low coverage of services especially in a context of strict anti-drug regulations, the attendance rate to drug treatment and services might be low and other methods would have to be applied in order to recruit an appropriate/representative sample from the population. The estimates relying solely on the institutionalised populations or populations in contact with services are considered biased ([68, 19, 69]). For example, sampling from needle exchange programmes, results in underrepresentation of women, youth and those who have recently started injecting ([5]). In consequence it is not possible to construct a sampling frame and usual probability sampling techniques are less useful ([70, 19]).

All approaches that allow representative sampling of drug users require more or less rigorous formative research before and during designing of the study.

Targeted sampling

Targeted sampling (TS) was first described in (68) to sample injecting drug users directly from the community.

TS requires careful formative research, including a review of existing data and — often very time and resource intensive — ethnographic mapping, to describe key characteristics of the population of interest and well as locations for potential sampling ([71]). Based on this information quotas are established for each sampling site and demographic characteristic. The exact method of sampling (e.g. systematic, chain referral techniques) for each site and sub-population are then chosen to optimise output.

***Targeted sampling — outline procedure**:*

1. Identification of neighbourhoods (geographic areas) where injecting drug use takes place: This can be based on direct observation, interviews with key informants (e.g. drug treatment or harm reduction programme staff, police, hotel desk clerks), reviewing existing data (e.g. police arrest data, emergency room admission data, drug treatment data for residence place).

2. Ethnographic observations of identified neighbourhoods: The aim is to gain insight into social organisation of target groups (in particular the existence of non-overlapping networks), record indicators of intensity of drug injecting (such as used syringes found at location, police activity), other information (social contexts of needle use and needle sharing, drug use profiles, sexual relationship, habits).

3. Sampling of locations: Sampling frame is constructed including the locations (e.g. 3 of the size 3 blocks) within neighbourhoods and the indicators of intensity of drug use, which serve to estimate sampling weights adequate to the expected recruitment yield. Weighted random sample of the locations is then selected (see cluster sampling).

4. Sampling at location: Quotas (desired sample size) are settled for each location based on key population characteristics, for non-overlapping networks. The method for recruitment may be different at each location — for example, snowball technique with seeds in every subgroup identified. Alternatively, interviewers approach all (or a sample depending on the population flow) individuals met during the sampling episode and screen them for eligibility criteria.

5. Adaptation of sampling: The study procedures including recruitment procedures should be altered if the study fails to include some important subgroups.

Time-location sampling

Time-location sampling (venue, day, time (VDT) sampling, temporal spatial sampling (TSS), Time venue sampling (TVS)) from a methodological point of view is a type of cluster or indirect sampling schemes. If we plan to sample drug users from the community (places where they congregate) we cannot assume that we will always find the same population at a site or venue considered a cluster. Therefore the sampling frame is defined by time intervals at the sites. In order for TLS to be an effective strategy places where drug users congregate must be identifiable and accessible, as well as frequented by the vast majority of the target population. TLS has most often been used to study men who have sex with men but has been used less to study drug users.

Time-location sampling — outline procedure:

1. Identification of possible venues and sites: As opposed to cluster sampling of clients of services and treatment centres, the places associated with community activities are included. This may be shooting galleries, bars, needle exchange and outreach, parks, areas outside methadone clinics, accommodation services.

2. Formative research: Characterisation of sites and estimating weights. The sites have to be at minimum described in terms of the number of drug users reachable during the selected time unit and the hours when the target population can be found in large enough numbers to make the sampling effort efficient (some initially identified sites will be excluded at this stage). Seasonality in the number of the target population reachable or the structure of population should also be noted (e.g. weekday/weekend, pay days). Weights are developed based on the population size estimated at a given time unit at a given location.

3. Construction of sampling frame ('calendar') and sampling: Sampling frame includes site–time interval units (e.g. day xxx street xxx at 20.00–22.00 and day xxx street xxx at 22.00–24.00 are two different sampling units) in the form of a calendar for the planned study duration. Random, weighted sampling from this 'calendar' is then performed. If different types of locations appear in the sampling frame a stratification procedure might be considered.

4. Sampling at venue/site: The number of respondents sampled at the given time-location unit will either be fixed or dependent on the number of target group members encountered at the site (take-all or take a fixed fraction). Sampling may be systematic, random or convenience.

Design issues

- The choice of time interval for sampling depends on the turnover of population at the identified location. Once the sampling time interval is selected it is the same for all sites in the study. Typically intervals range between 1 and 4 hours. For services a daytime period was also used.
- The same target group member may be encountered by the interviewers at multiple locations. Usually these duplicates are just excluded at the data collection stage (not inviting the person into the study). This could be done by asking a series of non-identifying questions (e.g. sex, birth year, age, race/ethnicity, state of birth, and first two letters of mother's maiden name ([72])).
- Differences in the probability of being included in the sample (i.e. the more places a person attends the more likely he or she is to be recruited into the study). In order to correct for overrepresentation of the most 'active' members of the target population the TLS survey may necessitate weighting at the analysis stage (see Analysis section) and thus the questionnaire should include questions on the frequency of attendance at different services ([20]).

A detailed description of designing TLS surveys, with examples, is provided in (54).

Chain referral sampling schemes

Chain referral techniques (link tracing methodologies, network sampling) rely on the notion that injecting drug users form social networks that might be used to recruit their members into the study. The general idea is that a community member who participates in the study provides information about or recruits his or her network members belonging to the target group and the study follows social 'links' in the target population.

Snowball technique

The snowball technique was developed in the 1950s and 1960s, primarily to study the network structure ([73, 74]). In the snowball technique we select seeds who agree to participate in the study. Then we ask them to nominate several people/everyone from their contact network who they think might be interested in taking part in the study and ask for details of how to contact them. The nomination can be provided by giving the names or other identifying information and indicate where this person can be contacted. The study team then randomly selects a pre-specified number or all of the potential participants who are contacted and agree to participate. This procedure continues until the planned sample size is reached or the population is saturated (newly identified contacts already participated in

the study). The drawbacks are uncontrollable non-randomness of the process with oversampling of the 'less hidden' part of the population and unwillingness of the study participants to provide contact details without consent of their peers ([68, 16, 75]).

Respondent-driven sampling

The respondent-driven sampling is a modification of snowball sampling, and also relies on the social links in the population ([16, 17]). In respondent-driven sampling the respondents have the additional role of recruiting participants, who are then asked visit the study site.

Respondent-driven sampling — outline procedure:

1. Selection of seeds: Seeds are initial participants of the study. They are non-randomly selected from members of the target population known to the study teams, based on key-informant referrals or through outreach. The number of seeds is variable; many studies use 6–12 seeds.

2. Coupon distribution and peer recruitment: Seeds complete interview and are provided with a defined number of coupons, most commonly 3. They are asked to recruit members of their personal networks who are also members of the target population and to give them one of the coupons. Coupons are typically valid for some defined time period to enter the study. Coupons are numbered in a way that allows recruitment chains to be reconstructed at the time of analysis.

3. Subsequent waves of respondents: Persons who are present at the study site with a valid coupon and meet the eligibility criteria are invited into the study. At the end of the study procedure they are also given the coupons to recruit members of personal network. The respondents recruited by the seeds form the first wave. The respondents recruited by the first wave respondent form the second wave and so on until the desired sample size is reached.

4. Incentives: The respondents are given an incentive for participating in the study at the end of study procedure and also for each recruited person at the end of the time period for which their coupons were valid.

5. Phasing-out: The number of valid coupons distributed to potential respondents has to be carefully monitored. Towards the end of the study, when the total number of respondents is close to the desired sample size the number of coupons distributed to the respondents has to decrease and finally no coupons are distributed.

The participation bias is reduced through a system of dual incentives given as a reward for being interviewed and for recruiting peers to be interviewed, if they show up. Importantly, the possible bias due to different personal network sizes is corrected for at the time of analysis. However, the theoretical assumptions for the RDS sample to be representative of the population might be difficult to meet ([76]).

Although extensive formative research is not required, it may be of value to gain understanding of the community structure, including the existence of disconnected subgroups of subgroups in which participation may be hampered, for example, by cultural or logistical reasons ([72]).

Detailed instructions how to prepare and conduct RDS study can be found in (25).

Design issues

Seed selection

In the theoretical framework independent of initial seed selection, a representative sample is drawn after the number of waves sufficient to reach so-called equilibrium on pre-specified variables, i.e. the number of waves after which the distribution of those features change by less than 2 % ([77]). There are ways to increase efficiency of reaching equilibrium. First, selection of diverse seeds depending on factors associated with social ties formation ([78]): race/ethnicity/migration, gender/age, drug use/service

use — this is likely to be different in individual settings and should be discussed during the formative research phase ([79, 80, 81, 82]). Additionally, we are looking for seeds that have some experience in recruiting others, to be able to convince their peer to participate in the study — in this respect active members of the community should be invited as seeds (e.g. from community-based organisations). Other studies suggest that the effectiveness of the seeds (and the subsequent recruitment) can be increased by training each participant (individual or group sessions) ([83, 78]). Apart from the seeds selection, some suggest using additional incentive for recruiting members of particularly hard-to-reach subgroups (to be defined during the formative research) ([17, 84]).

Coupon systems

The coupons' numbering system should allow data analysis to take into account the recruitment structure. The simplest way of numbering the coupons given to a responder is to begin with the number of the coupon of the responder and add an extra digit indicating the consecutive number of the coupon. At first consecutive numbers are assigned to the seeds. Then, for example, the three coupons given to seed number 2 will be numbered 21, 22, 23; and the coupons given to the respondent 21 will have numbers 211, 212, 213 and so on. Specific software has been also developed to manage the coupons (RDS Coupon Manager, UCSF Global Health Sciences, San Francisco, USA).

The value of incentive

The incentive has the role of motivating the study participation. The incentives are structures in such a way as to involve peer pressure in the recruitment process (incentive for the recruiter). The value should be high enough to be attractive for the members of target population but not high enough to induce undesirable behaviours, such as selling the coupons to strangers. Studies in developed countries used the value of approximately USD 20–40 and studies in developing countries used USD 2–4 for primary incentive and commonly half of the value for secondary incentive ([85]). The value of the incentive should be discussed during the formative research. Due to legal constraints it is often not possible to distribute monetary incentives, so food coupons, other shopping vouchers, phone cards or other gifts can be used instead.

Study efficiency

When the drug using population is well connected the RDS technique is very efficient in producing the desired sample size. The problems arise when the mean number of network members is small (<20) and when there are strong tendencies for intra-group recruitment ([86]).

Additionally, a study from New York City suggests that the recruitment might not be as efficient in areas with negative attitude towards injecting drug use, although this could be counteracted through RDS training sessions ([83]).

It was usually possible to recruit the desired sample size of 200–400 in 4 to 12 weeks ([85]).

Barriers to recruitment

Barriers in network penetration may be examined by the recruitment probabilities across different population subgroups and comparison with other data sources (e.g. service data, imprisonment data, infectious disease notifications). Barriers have been identified across geographic area, races and injection drugs ([87]).

Annex 2. Available biological samples and laboratory tests

Possible biological samples

HIV, HCV and HBV tests are best performed on serum/plasma samples that require venepuncture, collection of a blood sample and preliminary processing (e.g. centrifugation). An alternative to venous blood sampling is the collection of capillary blood (dried blood spots, DBS) and tests performed on eluted DBS are as accurate as on venous blood samples ([88, 89, 90]). Screening assays are also available from oral fluid and urine samples ([91, 92, 93]). The accuracy of non-blood assays, particularly urine assays, is less than the blood assays. Oral fluid testing is established in epidemiological studies of HIV. Less evidence is available for validity of oral samples testing for hepatitis ([94]). Results for HCV antibodies have been inconsistent, sometimes showing decreased sensitivity, although this may depend on sampling collection methods and type of laboratory test, and one rapid test has been demonstrated to have good accuracy ([92, 32]).

Collection of blood samples, especially through venepuncture, usually requires specific training and is often subject to regulations. This may for example require contracting a trained nurse in the study to take blood samples. This requirement may not be there for DBS or oral fluid but this may differ per country. Information about different samples available is provided in Table 8.

Laboratory based and rapid tests

The standard diagnosis requires transportation of samples to a collaborating laboratory, where the tests are performed. Laboratory test results are usually reported within one to several days. Rapid (point of care) tests are performed directly at the collection site. These are usually immunochromatographic tests and their result can be read visually (discoloured line) in 10–20 minutes from providing a sample for HIV and 20–40 minutes for HCV ([95]). Rapid tests may be more expensive than regular laboratory tests. Later on they require confirmation with laboratory test.

The choice of rapid or laboratory based testing will depend on a number of factors including testing settings, available staff (including medically trained staff), available infrastructure (at the testing site, transport arrangements), costs and if the participants are likely to collect the test results ([29]). Attention must also be paid to storage conditions of the kits ([96]). National rules and requirements are relevant with regard to rapid tests since they can limit their use to specific situations, settings, professionals or their use can be the subject of specific approval, etc.

In addition to commercially available assays, laboratories may work out other methods or modify commercially available tests that could be used in surveillance studies.

Characteristics of available assays are published by WHO on their Diagnostics and Laboratory Technology website (www.who.int/diagnostics_laboratory/publications/evaluations/en/index.html) ([95]).

Table 8 — Biological samples for testing for the infectious disease markers.

Biological material	Collection procedure	Storage conditions	Transport requirements
Whole blood	Venepuncture and collection of 2–5 ml blood into EDTA solution; usually health care worker	Has to be processed to serum samples; <24h in 4°C, 4 weeks at –20°C, if longer storage period –70°C; specimens should be partitioned into small aliquots prior to freezing in order to avoid multiple freeze–thaw cycles.	Dry ice; safe pack
Dried blood spots (capillary blood)	Finger prick (sterile lancet) blood is collected on filter paper and allowed to air dry	Dries in 3 hours at room temperature, dried blood spots may be stored refrigerated (2–8℃), or at room temperature (15–30℃) for 90 days as long as they are not exposed to elevated humidity (>50 %). For long-term storage, dried blood spots may be frozen at –20℃ or colder at <50 % humidity.	Plastic bag with desiccant and envelope
Oral fluid	Collected on special device (following manufacturer's instructions); some devices may have limitations with respect to eating, drinking and smoking before sample collection	Usually placed in tube with buffer and may be stored at 2–37℃ for a maximum of 21 days from the time of collection, or frozen (–20℃ or lower) for 6 weeks. Storage times may vary for different devices.	May be transported in ambient temperature
Urine	Regular collection, any time of day	4°C (must not be frozen) or at room temperature. Should be tested on the same day.	May be transported in ambient temperature

Annex 3. List of indicator sets used internationally

1. EMCDDA, *DRID Guidance Module: Behavioural indicators for injecting drug users*
2. ECDC, Behavioural Surveillance Toolkit www.ecdc.europa.eu/en/activities/diseaseprogrammes/hash/hiv_behavior_toolkit/Pages/introduction.aspx
3. Global AIDS Response Progress Report www.unaids.org/en/dataanalysis/knowyourresponse/globalaidsprogressreporting/
4. Dublin Declaration www.indicatorregistry.org/taxonomy/term/2538
5. PAHO/WHO [OPS/OMS] (Pan American Health Organization/World Health Organization) (2008a), 'Encuestas de Comportamiento en Consumidores de Drogas con Alto Riesgo (CODAR). Cuaderno1: Diseño del studio, adaptación del cuestionario e indicadores' [Behavioural surveys among problem drug users: Questionnaire study design, adaptation of questionnaire and indicators], PAHO/WHO, Washington (new.paho.org/hq/index.php?option=com_content&view=article&id=689%3aencuestas-decomportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-pcodar&lang=en).
6. PAHO/WHO [OPS/OMS] (2008b), 'Encuestas de Comportamiento en Consumidores de Drogas con Alto Riesgo (CODAR). Cuaderno2: Manual de entrevista y aplicación del cuestionario'[Behavioural surveys among problem drug users: Questionnaires — interviewer manual], PAHO/WHO, Washington (new.paho.org/hq/index.php?option=com_content&view=article&id=689%3aencuestas-de47comportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-pcodar&lang=en).
7. PAHO/WHO [OPS/OMS] (2008c), 'Encuestas de Comportamiento en Consumidores de Drogas con Alto Riesgo (CODAR). Cuaderno3: Cuestionario C-CODAR' [Behavioural surveys among problem drug users: Questionnaires — Questionnaire C-CODAR], PAHO/WHO, Washington (new.paho.org/hq/index.php?option=com_content&view=article&id=689%3aencuestas-decomportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-pcodar&lang=en).

Annex 4. Protocol development

A protocol is the document describing all aspects of the study, including the background and rationale, design, study methodology and management as well as statistical considerations for planning and analysis of the data.

- It is developed by the team representing those who will implement the study, which could include those working directly with drug users, epidemiologists/biostatisticians, sociologists, infectious disease clinicians/virologists, representatives of the target group.
- The aim of the protocol is to systematise the study plans, assess feasibility and if the plan (including information to be collected) is consistent with the objectives, assign roles of partners.
- The protocol usually has to be submitted for ethical review.

Protocol outline:

1. Study summary:
    a. Title, timeframe, funding source, contact details of investigators, list of study sites.
2. Background information and significance:
    a. Information on existing knowledge based on literature review.
    b. Description of population to be studied, problems (diseases, behaviours) to be studied, outcomes of prior biological and behavioural studies, any other information useful to understand the problem or choice of study settings.
    c. Information on compliance with existing regulations, local authorities requirements, partnerships with stakeholders.
3. Objectives and rationale, research question:
    a. Overriding aims of the study, how important is the problem, what data gaps the study will be addressed, what is the public health significance of the prospective results.
    b. Detailed description of measureable primary and secondary objectives.
    c. Discussion of feasibility of achieving the primary objective.
4. Design of the study and methods:
    a. Study population (target/sampling population definition, inclusion/exclusion criteria, enrolment procedure).
    b. Study design including the choice of sampling method, main indicators.
    c. Study instruments (questionnaire, laboratory tests).
    d. Exact study procedures with description of roles, data collection and storing procedures, biological samples collection, transport and storing procedures, coding, providing laboratory results to respondents.
    e. Alternative procedures in case of respondent's withdrawal, irregular behaviours etc.
    f. Procedures for personnel safety, unexpected events procedures.
5. Statistical methods, analysis plan:
    a. Sample size calculation.
    b. Detail statistical methods planned for data management and analysis, dummy tables for the main outcomes planned.
    c. Plan for accounting for missing data, potential biases, sensitivity analysis.
6. Publication and presentation plan:
    a. Target audience.
    b. Relevance to the objectives.
7. Ethical considerations.

8. Project management plan:
    a. Tasks of all people implementing the study.
    b. Monitoring plans, risks and risk management.
9. Timeline.
10. Budget.
11. References.
12. List of abbreviations.
13. Annexes (if applicable).

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Authors and acknowledgments

This second version of the DRID Example Questionnaire was prepared by María J Bravo (ISCIII; CIBERESP, Spain) and Lucas Wiessing (EMCDDA), based on a first draft version developed by the Greek REITOX Focal Point UMHRI[#].

Substantial input was given by (in alphabetical order): Anastasios Fotiou*, Don Des Jarlais*, Doris Radun*, Leonie Prasad*, Mirjam Sabin*, Robert Heimer*, Viktor Mravcik*, Vivian Hope*.

We are further grateful for important input from: Catharina Matheï*, Esther Croes*, Lisa Johnston*, Magdalena Rosinska*, Marcis Trapencieris*, Marie Jauffret-Roustide*

Respondents to the 2010 survey of European experts on these indicators were: Alain Origer, Anastasios Fotiou*, Andrea Tramarin, Andrei Botescu, Anna Tarján, Ave Talu and Katri Abel-Ollo, Don Des Jarlais*, Doris Radun*, Esther Croes*, Cinta Folch, Gabor Gazdag, Gianfranco Spiteri, Hans Blystad* and Ellen Amundsen, Henrikki Brummer-Korvenkontio, Raina Ilieva, Ilonka Horvath and Martin Busch, Irena Klavs*, Marie Jauffret-Roustide*, José Pádua, József Rácz, Niklas Karlsson, Leonie Prasad*, Magdalena Rosinska, Mária Dudás, María José Bravo*, Natasa Savvopoulou, Vlastimil Necas, Robert Heimer*, Sharon Hutchinson*, Slávka Lenerová, Tiphaine Canarelli, Vivian Hope*, Vitomir Burek, Vytautas Gasperass.

We also thank ECDC (Anastasia Pharris*, Mika Salminen*, Erika Duffel), UNAIDS (Miriam Sabin*), WHO (Jesus García Calleja*, Martin Donoghoe), and EMCDDA colleagues Alessandra Bo, Alessandro Pirona, Andre Noor, Anna Gyarmathy, Bruno Guarita, Cecile Martel, Dagmar Hedrich, Danica Klempová, Dominique Lopez, Eleni Kalamara, Isabelle Giraudon, Jane Mounteney, Julian Vicente, Katerina Skarupova, Klaudia Palczak, Linda Montanari, Luigi Nisini, Marica Ferri, Paul Griffiths, Sandrine Sleiman, Teodora Groshkova and Ulrik Solberg for their comments and suggestions.

We are grateful for additional input from other colleagues, including the participants of the EMCDDA DRID expert meetings 2007–11, who have provided additional comments and suggestions during the discussions and workshops in these meetings: Alain Origer, Ana Martins, Anda Karnite, Andrea Tramarin, Anneli Uuskula, Arzu Dalmış, Asena Mateeva, Barbora Orlikova, Blanca Castillo, Bogdan Gheorghe, Branko Kolarić, Canan Yilmaz, Caroline Semaille, Catharina Matheï, Charlotte Wirl, Colin Taylor, Dmitry Chernyshev, Elena Alvarez, Elsa Maia, Eva Machova, Eva Ščerba, Fortune Ncube, Frida Hansdotter, George Peschanskih, Gianfranco Spiteri, Giedrius Likatavicius, Giuseppe Salamina, Graça Vilar, Heiko Jahn, Irma Caplinskiene, Jan Fouchard, Jean Long, Jenneke van Ditzhuijzen, Jevgenia Epštein, John V. Parry, Kaat Bollaerts*, Kari Grasaasen, Katerina Skarupova, Keith Sabin, Ksenia Eritsyan, Kuulo Kutsar, Leonie Prasad, Lillebil Nordén, Lucian Suditu, Mª Encarnación Monzó Castellano, Marc Rondy, Marcis Trapencieris, Mária Dudás, Maria Spyropoulou, Mário Castro, Mario Cruciani, Marita van de Laar*, Marko Markus, Marta Struzik, Martin Donoghoe*, Maud Pousset, Mehmet Akgun, Milica Georgescu, Mirjam Kretzschmar, Monica K. Nordvik, Moses Camilleri, Natasa Savvopoulou, Nathalie Deprez, Noel Craine, Peter Vickerman, Peyman Altan, Rafael Mikolajczyk, Riku Lehtovuori*, Robert Broadhead*, Rui Pedro, Russell Barbour, Ruth Zimmermann, Silvia Slezakova, Silvia Zanone, Sofia Lopes da Costa, Stine Nielsen, Susan Cowan*, Suzi Lyons, Svetlana Sidyak, Tanja Kustec, Tessa Windelinckx, Tommi Asikainen, Viktor Mravcik, Vyatcheslav Baturin, Ziv Shkedy.

The work described here builds on the 'pilot version of ST9 part 3', developed by the EMCDDA in 2006. In addition, this work substantially benefited from the work on the draft DRID protocol, in particular on the 'DRID example questionnaire' included in that protocol, produced by the Greek

[#] The first version of this questionnaire was developed in the framework of the 'Protocol for the implementation of the DRID-EMCDDA indicator' and was elaborated under contract by the Greek REITOX Focal Point, University Mental Health Research Institute (UMHRI). 6 October 2006 EMCDDA/Greek REITOX Focal Point UMHRI (PROJECT CT.04.P1.337).

* Member of the DRID Protocol Advisory Group

National Focal Point and EMCDDA in 2006 (EMCDDA, 2006). The development of the draft DRID protocol was coordinated by Katerina Kontogeorgiou and Manina Terzidou (Greek National Focal Point) and Lucas Wiessing, Danica Klempova, Colin Taylor and Paul Griffiths (EMCDDA) with contributions from Clive Richardson, Anastasia Drymousi, Georgia B. Nikolopoulou, Maria Hadjivassiliou, Irene Vafiadi-Zoubouli, Viktor Mravcik, Maria Jose Bravo, Anneke Krol, Lubomir Okruhlica, Vivian Hope and Françoise Dubois-Arber.

The current module, 'Example questionnaire for bio-behavioural surveys in people who inject drugs', was commissioned by the EMCDDA (contracts CC.10.EPI.010 and CC.10.EPI.012).

Recommended citation:
European Monitoring Centre for Drugs and Drug Addiction (2013), *DRID Guidance Module: Example questionnaire for bio-behavioural surveys in people who inject drugs,* EMCDDA, Lisbon.

Notes for researchers

What is the aim of the EMCDDA DRID Example Questionnaire (EQ)?

- To contribute to the standardisation of the epidemiological measures used in the surveillance of Standard Table 9 (ST9) behavioural indicators and other relevant DRID indicators.

> The EQ constitutes one module of the EMCDDA Drug Related Infectious Diseases (DRID) Guidance Toolkit

The questionnaire includes:

- The questions needed to build all the EMCDDA DRID behavioural indicators.
- Other questions that can be used for issues generally included in surveys of drug injectors.

What this Example Questionnaire is NOT:

- This questionnaire is not primarily intended for direct unmodified use in a survey or study. It would probably be far too long for most studies and would need to be shortened and adapted to study objectives. The questionnaire is principally meant to be used as a structured list of individual example questions or sets of questions that can be taken out and used for specific studies depending on their objectives.

- However, the structure of this Example Questionnaire follows the standard logic of many bio-behavioural studies in order that the user can understand how responses to some questions will result in skipping other questions that do not apply and what is a possible order of topics. Thus, if the researcher wishes to apply any section as a whole it can be done without any modification (see below).

Which are the principal sources of the EMCDDA DRID EQ?

- The EQ is based on a set of published (FHI, 2000; PAHO/WHO, 2008a, 2008b, 2008c; Stimson et al., 1998) and unpublished questionnaires (Czech NFP, 2003; EMCDDA, 2000; HPA, 2003; ISCIII, 2001; RIVM, 2002; SCIEH, 1999; WHO, 2000) used in surveys of people who inject drugs (injecting drug users/IDUs) in Europe.

- Particular attention was paid to WHO and PAHO/WHO questionnaires as they were designed to fit with different epidemiological situations regarding drug use and drug injection; both were designed to be worldwide applied to injectors and non-injectors in countries with a great variation of human immunodeficiency virus (HIV) or hepatitis C virus (HCV) infection prevalence among IDUs.

- For each section of the EQ a set of questions was selected and then modified, when needed, in order to meet the criteria for the construction of the EMCDDA Behavioural Indicators for people who inject drugs.

- The basic principles that governed the construction of the EQ questionnaire were:

    - When available, to follow the scientific evidence on the content validity and reliability of the selected questions. Although a systematic review of published evidence was not performed — it would have been extremely resource intensive given the large number of indicators included here — numerous experts provided specific pieces of evidence and gave their opinions through the EMCDDA expert consultation (EMCDDA 2011) and EMCDDA DRID expert

meetings ([1]). When no scientific evidence was available, the questions were selected based on their higher face validity.

- To keep the modifications to a minimum in order to maintain comparability with the source questionnaire. Thus, in those sections not including any question related to the EMCDDA behavioural indicators for people who inject drugs, the wording and format of the selected questions included in the EQ have been maintained unchanged, or with slight modifications as compared to the original source. This is the case for the sections on health care (Section K) knowledge/attitudes (Section L) and mobility (Section N), where the selected questions are almost exactly as in the original WHO questionnaire (minor changes in wording were performed when this was thought to improve comprehension or face validity); this is also the case for the paragraphs that should be read out by the interviewer in order to introduce the survey to the participant and ask for informed consent (see 'Instructions to the interviewer') (FHI 2000).

- Finally, guidelines published by CDC (Allen et al., 2009; Lansky et al., 2007; Gallagher et al., 2007), ECDC (ECDC, 2009, 2010), FHI (FHI, 2000), UNAIDS (UNAIDS, 2009; UNAIDS, WHO and Others, 2000) and WHO (WHO and UNAIDS, 2000, 2002; WHO et al., 2009; PAHO/WHO, 2008a, 2008b, 2008c) were also reviewed. Particular attention was paid to the selection and wording of the recall periods according to definitions used by other EMCDDA indicators or other institutions/organisations (Dubois-Arber et al., 2011; EMCDDA, 2006, 2011, 2012; FHI, 2000; PAHO/WHO, 2008a, 2008b, 2008c; UNAIDS, 2009; WHO et al., 2009).

How can the EQ be used?

- Selecting certain questions and placing them in another questionnaire to be used in a particular bio-behavioural survey in any country.

    - This will allow you to obtain those EMCDDA indicators whose corresponding questions you have chosen.
    - It is worth paying special attention to the questions that are designed in a 'flexible format'.

- For larger questionnaires, using the complete sections of the EQ can also be an interesting option. Each section has been designed to allow being applied in full if required.

- Although this is not its principal aim, the EQ can be used in full, as any other questionnaire. Nevertheless, the researcher must be well conscious of the average duration of the interview and the consequences of its application in full on the feasibility of the study.

- The EQ has been designed to be used in interviews.

- Self-completion is not recommended.

- It can be administered in agency/care centre or non-agency (community) settings.

- The questionnaire is available from the EMCDDA (www.emcdda.europa.eu/themes/key-indicators/drid) in two formats: PDF and Word. You can adapt the Word file to your needs when creating your questionnaire by copying and pasting specific questions or sections of

[1] For details, see also the section Methodological Notes in the EMCDDA 'DRID guidance module: Behavioural indicators for people who inject drugs' (version 1.0).

the questionnaire. If this is the case, please include a reference to the EQ as the source, either partially or fully used, in your questionnaire.

Suggested citation:

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2013), 'DRID guidance module: Example questionnaire for bio-behavioural surveys in people who inject drugs, version 2.0', EMCDDA Manuals, Lisbon.

How to identify the indicator-related questions currently being reported through the Fonte template ST9 part 3

- Currently all Core and Additional indicators are collected through the Fonte template ST9 part 3, as well as two optional indicators (O3 and O8).

  In the EQ, all the boxes containing the questions related to these behavioural indicators are shaded in grey for easy identification.

Which are the main recall periods used in the EQ?

- Last 4 weeks before the interview.

  Last 4 weeks is the recall period used, for example, for drug injection related behaviours. Frequent events are more easily asked and recalled when referring to short periods of time.

- Last 12 months before the interview.

  Last 12 months is the recall period selected for sexual behaviour, testing uptake or homelessness. Remember that if the behaviour to be measured is not frequent or regular, a short period of time (such as last 4 weeks) may not be efficient as it will give too many empty responses. For example, information on condom use is unlikely to be gathered for people with irregular or infrequent sexual practices when using 'last 4 weeks' as the recall period.

- Last event.

To which population can the EQ be applied?

- The study population may only consist of 'ever-IDUs' (i.e. people who have ever injected in their lifetime, even if only once — this includes current IDUs), or be restricted to current IDUs (those injecting in the last 4 weeks) ([2]) or may conversely even include never-injectors (e.g. problem drug users who never injected). Note that if the EQ is applied to a population that includes many non-current IDUs, large parts of the questionnaire are not applicable. Whether this is desirable or not will depend on the main objectives of the study.

- Remember that you can choose the questions with a 'flexible format' and place them in your study questionnaire, to make the connection between the recall period of a given EMCDDA DRID behavioural indicator and the recall period you are otherwise using in your study.

[2] The EMCDDA definition of problem drug use (PDU) is 'injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines'. A particular DRID study could for example choose to use both injecting and non-injecting problem drug users as target population, or, it might target 'ever-IDUs among the PDUs' (including current injectors), or (most commonly) it might restrict itself to current injectors.

What is the 'flexible format' and how does it work?

The flexible format tries to provide a solution to the problem of comparability between surveys that use different recall periods for behavioural questions.

> Using the flexible format you can still use your own questionnaire with your recruitment criteria and specific recall periods, but can make your results comparable to some of the DRID EMCDDA ST9 indicators.

The flexible format in the DRID example questionnaire is presented in two ways:

1. A format that allows the researcher to place the occurrence of a given behaviour within a set of time frame categories.

   Thus, for studies using recall periods that are different to those proposed by the 'EMCDDA DRID guidance module: Behavioural indicators for people who inject drugs' it is recommended that a question is included that, for some particular behaviours, allows for some limited comparisons.

   Let's suppose that in your questionnaire you are using a recall period of 'last 12 months' for Indicator A7 (% opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks), which uses a recall period of 4 weeks. Using the following flexible format would allow you to maintain your own recall period while still being able to compare with Indicator A7. In this case, by writing '12' in the dotted space your questionnaire will allow you to compare the percentage of participants that report the behaviour (opioid substitution treatment) in the last 4 weeks (Indicator A7) with the percentage of participants that report it in the last 12 months. Note that the categories must be exclusive and exhaustive. Thus, you will be able to provide the data on indicator A7 to the EMCDDA regardless of the recall period that you were particularly interested in.

Question QD07:		
Regarding opioid substitution treatment, have you been in this type of treatment either in the last 4 weeks, last … months or before? *Read all options to the participant or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks, but in last … months Before last … months Refused Don't know/remember	1 2 3 8 9
Simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you are using in your questionnaire — 6 months, 12 months or any other.		

   There are five questions with this specific format in the Example Questionnaire (QD07, QF11, QF17, QF23, QF27) and four of them are used in the following behavioural ST9 indicators included in Fonte:

   Indicator C1: % current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on) (QF11, QF23)

   Indicator C2: % current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on) (QF17)

   Indicator A7: % opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks (QD07)

2. A format that, by asking the date of the last time that an event occurred, allows you to tailor the recall period.

   In this way you can obtain the prevalence of a given behaviour in 4 weeks, 6 months, 12 months or any other time frame that you wish.

   See the following two examples:

Example 2.1

When was the last time you had an HIV test?	Month /__/__/ Year/__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999
What was the result of your last HIV test?	Negative Positive Indeterminate Waiting for the results Refused Don't know/remember	0 1 2 3 8 9

Example 2.2

When did you last inject a drug? *Write the date of the last injection. If it took place more than 4 weeks ago, then register only month and year.* *If it occurred long time ago and he/she does not remember the month, then register only the year.*	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y *If she/he has not injected in the last 4 weeks, then skip to →*	 88 88 8888 99 99 9999 →

There are nine questions with these specific types of flexible format in the Example Questionnaire (QD04, QF05, QI05, QI10, QJ02, QJO5, QJ07, QJ10, QK07) and three of them are used in the following core or additional behavioural ST9 indicators included in Fonte:

Indicator C1:	% current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on) (QF05)
Indicator C2:	% current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on) (QF05)
Indicator C3:	% ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months (QJ02)
Indicator C4:	% ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months (QJ07)
Indicator A1:	% current IDUs who report the use of a sterile needle/syringe the last time they injected (QF05)
Indicator A2:	% current IDUs injecting once per day or more in the last 4 weeks (QF05)
Indicator A6:	% current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks (QF05)
Indicator O8:	Mean and median number of injections in the last 4 weeks, among current IDUs (QF05)

The main drawback of the flexible format is that it cannot be used for those indicators related to the frequency of events, such as the percentage of current IDUs injecting once per day or more, in the last 4 weeks.

There is no evidence about the accuracy or reliability of this approach. Nevertheless, there is no apparent reason to think that it would be less accurate or reliable than the format that places a given recall period as a rigid time frame for a behavioural question.

Even if *you do not intend* to use the DRID EMCDDA Example Questionnaire

↓

Please use the *flexible format* to design some of your questions *and make your results comparable* for some indicators.

How to build the indicators from the EQ questions

The instructions for the construction of the behavioural indicators are provided in the document 'DRID guidance module: Behavioural indicators for people who inject drugs' (EMCDDA, 2013), where specific references are made to the corresponding questions in the Example Questionnaire.

A very important issue, whether you are building the ST9 indicators from the EQ or selecting any other question or set of questions to include in your own measurement instrument, is that the existence of skips between questions should be kept in mind. Thus, in order to maintain a logical sequence in your questionnaire when incorporating one question or a group of questions, it is advised that you carefully review what the skips in the EQ mean in terms of design for your questionnaire.

If you select a complete section or the whole questionnaire, the skips between questions are already in place and you do not have to change them.

When selecting a question or a set of questions from the EQ in order to include them in your own questionnaire, careful attention should be paid to the design of skips between questions.

EMCDDA DRID EXAMPLE QUESTIONNAIRE (EQ)

1. **Instructions to the interviewer** to apply the EQ

- Before asking questions, introduce yourself and the study. Obtaining informed consent is mandatory. For example:

  'My name is …, and I'm working for …. We're interviewing people in order to find about …. [describe the objective of the study]. Have you been already interviewed in [cite the appropriate time period] for this study?'

  If the respondent has been interviewed before during this round of surveys, do not interview this person again. Explain the reason, thank them and end the interview. If they have not been interviewed, continue:

  'I'm going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and consequently it will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answer to these questions will help us to better understand what people think, say and do about certain behaviours. We would greatly appreciate your help in responding this survey. The survey will take about XX minutes. Would you be willing to participate?' (FHI, 2000).

- All the instructions to the interviewer are in *italic.* The EQ includes two types of questions:

1. Questions with pre-coded categories. For example:

During the last 12 months, were you living with any of the following persons in the same household? *Read all options to the participant or show the card. Tick all the categories that he/she mentions.*	I didn´t live with anybody: Alone	01
	With partner(s)	02
	With partner (s) and children	03
	With my children only	04
	With parents	05
	With other relatives	06
	With other adults/friends	07
	Other, specify …….	08
	Refused	88
	Don't know/remember	99

   → Circle the answer/s that apply to the respondent.
   → When he/she refuses, does not know/remember, circle the corresponding option as well.
   → Be aware of the number of categories that apply to each question. Some of them ask for more than one answer.
   → When indicated, read the categories aloud.
   → When indicated show the prompt card.

2. Questions where you should write a number. For example:

During the last 4 weeks how many days did you inject?	Number of days /__/__/	
	Refused	88
	Don't know/remember	99

   → Use clear writing. Align the number on the right; i.e., if the answer is 5, then enter */0/5/*. If you write */5/ /* (leaving a blank on the right), it can be mistakenly registered as 50.
   → When letters are required, please use capitals and write it verbatim.

- Every question should be read literally, following exactly the wording of the question and categories.

2. Instructions about coding and completeness:

Code of the survey	/__/__/__/__/ /__/__/__/ /__/__/__/ Participant's code Setting code Survey code
To be filled in at the end of the interview: Did the interviewer check the completeness of the questionnaire?	0 No 1 Yes
Interviewer's name:	…….

EMCDDA DRID EXAMPLE QUESTIONNAIRE

SECTION A: INTERVIEW INFORMATION

Question number		Questions and filters	Categories		Skip to
QA	01	Date of the interview (DD/MM/YYYY)	Day /__/__/ Month /__/__/ Year /__/__/__/__/		
QA	02	Interviewer code	/__/__/__/		
QA	03	Participant code	/__/__/__/__/		
QA	04	Setting code	/__/__/__/		
QA	05	Survey code	/__/__/__/		
QA	06	Written or oral informed consent	No Yes	0 1	→ Reject
QA	07	Biological sample taken	No Yes, blood Yes, saliva Yes, urine Other, specify ……..	0 1 2 34	
QA	08	Identification code of biological sample/s *Stick the label/s here.*			

SECTION B: ELIGIBILITY CHECK

Question number		Questions and filters	Categories		Skip to
This is a very important section as it decides who will be entered in the study. No categories for Refused or Don't know/remember are included. Recruitment depends on the selection criteria.					
QB	01	Have you ever injected drugs for a non-medical purpose, even if once?	No Yes	0 1	→ Reject
QB	02	Have you used heroin, methadone or other opioids and/or cocaine, amphetamines or any other illegal drug in the last 12 months? *Note that this question refers to any route of administration*	No Yes	0 1	
QB	03	Have you injected any drug in the last 12 months, even if once?	No Yes	0 1	
QB	04	Have you injected any drug in the last 4 weeks, even if once?	No Yes	0 1	
QB	05	Have you been interviewed for this study before?	No Yes	0 1	→ Reject
If the interviewee does not meet the criteria, please thank them and say goodbye.					

SECTION C: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Question number		Questions and filters	Categories		Skip to
QC	01	What is your date of birth? (DD/MM/YYYY)	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y	 88 88 8888 99 99 9999	
QC	02	What is your sex? *Register sex/gender or ask in case of doubt*	Male Female Transsexual/transgender Refused	1 2 3 8	
QC	03	In which country were you born? *Tick 001 or write the country in block letters.*	Country of study Another country……..…….. Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	→QC05
QC	04	How long in total have you been living in this country? If you have not been living here continuously, please estimate the total time. *This refers to the country where the study is carried out.*	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/ remember M Don't know/remember Y	 88 88 99 99	
QC	05	Which is your nationality/ies *Write in block letters.*	Nationality 1: ……..…… Nationality 2: ……..…… Refused Don't know/remember *Leave blank for coding:* Nationality 1: /__/__/__/ Nationality 2: /__/__/__/	 888 999	
QC	06	To what ethnic group do you think you belong? *Write in block letters.*	Ethnic group: …….. Refused Don't know/remember *Leave blank for coding: /__/__/*	 88 99	
QC	07	In which country was your mother born? *Tick 001 or write the country in block letters.*	Country of study Another country…..……..……... Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	08	In which country was your father born? *Tick 001 or write the country in block letters.*	Country of study Another country……..…….. Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	09	In which city have you mostly lived during the last 12 months? *Tick 001 or write the country in block letters.*	City of study Another city……..……..……... Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	10	How long have you been living there?	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 88 99 99	

QC	11	During the last 12 months, were you living with any of the following persons in the same household? *Read all options to the participant or show the card. Tick all the categories that he/she mentions.*	I didn't lived with anybody: Alone With partner(s) With partner (s) and children With my children only With parents With other relatives With other adults/friends Other, specify ……..……. Refused Don't know/remember	0 1 2 3 4 5 6 7 8 9	
QC	12	During the last 12 months, where did you live most of the time? *Read all options to the participant or show the card. Tick only one.*	In my own (or my spouse's or partner's) house or apartment In my parents' house or apartment In friends' house, flat or apartment In other relatives' house or apartment Hostel/hotel Squat At open scenes (street, park, car,etc.) In a therapeutic institution In prison Other, specify ……..……. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	 →QC14 →QC14
QC	13	How long were you living … (*mention the answer given in the previous question*)?	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 88 99 99	
QC	14	What is the highest level of school you have successfully completed? *Do not read the options.*	Never went to school/never completed primary school Primary level Low secondary level High secondary level Higher level Refused Don't know/remember	1 2 3 4 5 8 9	→QC16
QC	15	How many years of full-time education have you completed?	Number of years /__/__/ Refused Don't know/remember	 88 99	
QC	16	In the last 12 months, which ones of the following sources of money did you use to live on? *Read all options to the participant or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	Employment (full or part time) Social/government benefits Parents Partner(s) Relatives/friends Sex for money/prostitution Theft, robbing or stealing Street begging Selling drugs Other, specify ……..……. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	

SECTION D: DRUG TREATMENT AND NEEDLE AND SYRINGE PROGRAMMES

Question number		Questions and filters	Categories		Skip to
		Read to the participant: Treatment is an activity that directly targets people who have problems with their drug use and which aims to improve the psychological, medical or social state of individuals who seek help for their drug problems. Those programmes or centres that are exclusively concerned with making syringes available, disseminating information or just providing testing for diagnosing health problems are not considered here as drug treatment programmes or centres.			
QD	01	Have you ever received any treatment intended to modify, reduce or stop your drug use? Please include if you are in treatment now and do not include attempts on your own without professional help.	No Yes Refused Don't know/remember	0 1 8 9	→QD08 →QD08 →QD08
QD	02	How many times were you admitted to drug treatment?	Number of times /__/__/ Refused Don't know/remember	 88 99	
QD	03	When was the first time that you were admitted to drug treatment? Please tell me the month and the year.	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QD	04	When were you last admitted to drug treatment? Please tell me the month and the year.	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QD	05	Are you currently receiving any treatment intended to modify, reduce or stop your drug use?	No Yes Refused Don't know/remember	0 1 8 9	
QD	06	Have you ever received any of the following types of treatment? Please include any treatment you are currently receiving, and do not include attempts on your own without professional help. *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	Drug-free inpatient Drug-free outpatient Opioid substitution inpatient Opioid substitution outpatient Other, specify ….. …. ….. …. …….. Refused Don't know/remember *If he/she has NOT mentioned opioid substitution (either inpatient or outpatient) SKIP TO* → QD08	1 2 3 4 5 8 9 →	 → QD08
QD	07	Regarding opioid substitution treatment, have you been in this type of treatment either in the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks, but in last ……..... . months Before last …… months Refused Don't know/remember	1 2 3 8 9	
QD	08	Have you ever used the services of a needle and syringe programme?	No Yes Refused Don't know/remember	0 1 8 9	→QD10 →QD10 →QD10
QD	09	Have you used the services of a needle and syringe programme in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	

QD	10	Have you ever used a safer injection facility? Include your attendance at these facilities in any country. *If necessary, clarify the term 'safer injection facility'.*	No Yes Refused Don't know/remember	0 1 8 9	→QE01 →QE01 →QE01
QD	11	Have you used a safer injection facility in the last 4 weeks? Include your attendance at these facilities in any country. *If necessary, clarify the 'term safer injection facility'.*	No Yes Refused Don't know/remember	0 1 8 9	

SECTION E: DRUG USE

Question number		Questions and filters	Categories		Skip to
QE	01	Have you used **powder cocaine and heroin mixed** together in the last 12 months? *Note that in this section changes are made to the recall periods of the questions. Some refer to the last 12 months and others to the last 4 weeks. Emphasising these time periods is recommended, to avoid confusion by the participant.*	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	02	Have you used powder cocaine and heroin mixed together in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	03	Have you injected the mixture of powder cocaine and heroin in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	04	How many days in total have you injected it in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	05	Have you used **crack cocaine and heroin mixed** together in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	06	Have you used crack cocaine and heroin mixed together in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	07	Have you injected the mixture of crack cocaine and heroin in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	08	How many days in total have you injected it in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	09	Have you used **heroin alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	10	Have you used heroin alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	11	Have you injected heroin alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	12	How many days in total have you injected heroin alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	13	Have you used **powder cocaine alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17

QE	14	Have you used powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17
QE	15	Have you injected powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17
QE	16	How many days in total have you injected powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	17	Have you used **crack cocaine alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	18	Have you used crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	19	Have you injected crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	20	How many days in total have you injected crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	21	Have you used **methadone** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	22	Have you used methadone in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	23	Have you injected methadone in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	24	How many days in total have you injected methadone in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	25	Have you used **buprenorphine** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	26	Have you used buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	27	Have you injected buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	28	How many days in total have you injected buprenorphine in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	

QE	29	Have you used **any opioid other than heroin, methadone or buprenorphine** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	30	Have you used any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	31	Have you injected any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	32	How many days in total have you injected any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	33	Have you used **amphetamine or methamphetamine** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	34	Have you used amphetamine or methamphetamine in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	35	Have you injected amphetamine or methamphetamine in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	36	How many days in total have you injected amphetamine or methamphetamine in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	37	Have you used **benzodiazepines** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	38	Have you used benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	39	Have you injected benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	40	How many days in total have you injected benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	41	During the last 4 weeks, have you ever injected any drug other than the above mentioned?	No Yes Refused Don't know/remember	0 1 8 9	→QE43 →QE43 →QE43
QE	42	Please tell me which other drugs you have injected in the last 4 weeks. *If in any doubt, write on the right the names given by the respondent and record your comments here:*	Drug 1: ..... Drug 2: ..... Drug 3: ..... Refused Don't know/remember *Leave blank for coding:* Drug 1: /__/__/ Drug 2: /__/__/ Drug 3: /__/__/	 88 99	

QE	43	Which one of the two types of drugs that I will mention to you, have you used more frequently in the last 4 weeks? Please make a general assessment of all the drugs and mixtures that you have used in that period. *The interviewer must have been trained to adequately classify the answers.*	Heroin, methadone, buprenorphine, fentanyl, codeine or other opioids Cocaine, crack, amphetamines, methamphetamines, mephedrone, other mephedrone-like drugs or any other type of stimulants Refused Don't know/remember	1 2 8 9	
QE	44	From of all the following drugs, which was the one that you used first in your life? *Read all categories aloud. Tick one category only. If necessary, explain that this specifically asks for the very first one used, by any route (injected, smoked, snorted or oral).*	Powder cocaine and heroin mixed Crack cocaine and heroin mixed Heroin alone Powder cocaine alone Crack cocaine alone Methadone Buprenorphine Any opioid other than heroin, methadone or buprenorphine Amphetamine or methamphetamine Mephedrone or other similar drugs Benzodiazepines Other, specify ….. …. ….. …. …….. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 11 12 88 99	 →QF01 →QF01
QE	45	How old were you when you first used…. *(name the drug that the participant mentioned in the previous question*)?	Years old /__/__/ Refused Don't know/remember	 88 99	

SECTION F: INJECTING DRUG USE AND SHARING OF INJECTING AND NON-INJECTING EQUIPMENT

Question number		Questions and filters	Categories		Skip to
QF	01	How old were you when you first injected a drug? This includes either self-injection or injection by another person.	Years old /__/__/ Refused Don't know/remember	 88 99	
QF	02	What drug did you inject that first time? *Read all options to the participant or show the card. Tick one category only.*	Powder cocaine and heroin mixed Crack cocaine and heroin mixed Heroin alone Powder cocaine alone Crack cocaine alone Methadone Buprenorphine Any opioid other than heroin, methadone or buprenorphine Amphetamine or methamphetamine Benzodiazepines Other, specify …… ….. .... Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 11 88 99	
QF	03	That first time, did you inject with an used needle or syringe given, lent, rented, or sold to you by someone else?	No Yes Refused Don't know/remember	0 1 8 9	
QF	04	Where were you when you injected for the very first time? *Do not read the options.*	At home, in a private place In a public place, outside In a public place, inside (bar, pub, toilets) In prison In a supervised injection facility Other, specify …….... ..... Refused Don't know/remember	1 2 3 4 5 6 8 9	
QF	05	When did you last inject a drug? *Write the date of the last injection. If it took place more than 4 weeks ago, then register only the month and year.* *If it occurred a long time ago and the participant does not remember the month, register only the year.*	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y *If participant has not injected in the last 4 weeks, skip to* →	 88 88 8888 99 99 9999 →	 →QF10
QF	06	During the last 4 weeks how many days did you inject?	Number of days/__/__/ Refused Don't know/remember	 88 99	
QF	07	When you injected in the last 4 weeks how many times did you inject on an average day?	Number of injections /__/__/__/ Refused Don't know/remember	 888 999	
QF	08	The last time that you injected, did you use a sterile needle and syringe? I mean a needle/syringe that had never been used before, by you or anyone else.	No Yes Refused Don't know/remember	0 1 8 9	 →QF10

QF	09	For the last needle/syringe that you used and that had not been used by anyone else, how many times did you inject with it before disposing of it? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of times.*	Number of times /__/__/ Refused Don't know/remember	 88 99	
QF	10	Did you ever use **needles or syringes given, lent, rented or sold to you** by someone else, including your partner?	No Yes Refused Don't know/remember	0 1 8 9	→QF16 →QF16 →QF16
QF	11	Please think of the last time that you injected with previously used needles or syringes that were given, lent, rented or sold to you by someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks but in last ……..... months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF16 →QF16 →QF16 →QF16
QF	12	When you injected in the last 4 weeks, how often did you inject with previously used needles or syringes that were given, lent, rented, or sold to you by someone else, including your partner (already used by somebody else)? *Tick the category that applies.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	13	When you injected with used needles or syringes in the last 4 weeks were they ever from: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A regular sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Someone in the street Family member Other, specify …….. .... Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	14	When you injected with used needles or syringes in the last 4 weeks, were they ever from a person you knew was infected by HIV, HBV or HCV? *Tick all the categories that he/she mentions*	I know that none of the persons I shared with was infected with any of those virus Yes I know somebody was HIV+ Yes I know somebody was HBV+ Yes I know somebody was HCV+ Refused Don't know/remember	0 1 2 3 8 9	
QF	15	From how many people in total (including your partner) did you obtain used needles or syringes in the last 4 weeks? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of persons.*	Number of persons /__/__/ Refused Don't know/remember	 88 99	
QF	16	Have you ever in your life, when you prepared to inject, used a **spoon, cooker, filter/cotton, acid/lemon juice** or rinse water already used by someone else (including your partner)?	No Yes Refused Don't know/remember	0 1 8 9	→QF22 →QF22 →QF22

QF	17	Please think of the last time that you shared the spoon/cooker, filter/cotton, acid/lemon juice or rinse water with someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? By sharing I mean receiving or passing on used materials or using them together with someone else. *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks but in last …..…… months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF22 →QF22 →QF22 →QF22
QF	18	In the last 4 weeks when you prepared to inject, how often did you use a spoon/cooker, filter/cotton, acid/lemon juice or rinse water already used by someone else (including your partner)? *Tick the category that applies*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	19	When you prepared to inject with spoon/cooker, filter/cotton, acid/lemon juice or rinse water in the last 4 weeks were they ever from: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A stable sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Found in the street Family member Other, specify ……..….. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	20	When you prepared to inject with used spoon/cooker, filter/cotton, acid/lemon juice or rinse water in the last 4 weeks were any of them ever from a person you knew was infected by HIV, HBV or HCV? *Tick all the categories that the participant mentions*	I know that none of the persons I shared with was infected with any of those virus Yes I know somebody was HIV+ Yes I know somebody was HBV+ Yes I know somebody was HCV+ Refused Don't know/remember	0 1 2 3 8 9	
QF	21	From how many different people in total did you get spoon/cooker, filter/cotton, acid/lemon juice or rinse water that had already been used in the last 4 weeks? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of persons.*	Number of persons /__/__/ Refused Don't know/remember	 88 99	
QF	22	Did you ever in your life **give, lend, rent or sell to someone else** (including your partner) a **needle or syringe** you had already used?	No Yes Refused Don't know/remember	0 1 8 9	→QF26 →QF26 →QF26
QF	23	Please think of the last time that you gave, lent, rented or sold a needle or syringe that you had already used to someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks, but in last …… months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF26 →QF26 →QF26 →QF26

QF	24	When you injected in the last 4 weeks how often did you give, lend, rent or sell to someone else, including your partner, a needle or syringe you had already used? *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	25	When you gave, lent, rent or sold used needles or syringes in the last 4 weeks were they ever to: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A stable sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Somewhere in the street Family member Other, specify …… Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	26	Did you ever in your life inject drugs using a syringe after it had been filled from somebody else's used syringe? (frontloading/backloading/splitting)	No Yes Refused Don't know/remember	0 1 8 9	→QF29 →QF29 →QF29
QF	27	Please think of the last time that you injected drugs using a syringe after it had been filled from somebody else's used syringe. Did it happen within the last 4 weeks, last …… months or before? (frontloading/backloading/splitting) *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks, but in last ……..... months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF29 →QF29 →QF29 →QF29
QF	28	When you injected in the last 4 weeks, how often did you inject drugs using a syringe after it had been filled from somebody else's used syringe? (frontloading/backloading/splitting) *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	29	At any time in your life have you ever received an injection from another person?	No Yes Refused Don't know/remember	0 1 8 9	→QF31 →QF31 →QF31
QF	30	In the last 4 weeks, have you received an injection from another person?	No Yes Refused Don't know/remember	0 1 8 9	
QF	31	In the last 4 weeks, have you used any drug by sniffing, introducing a drug in powder form through your nose?	No Yes Refused Don't know/remember	0 1 8 9	→QF33 →QF33 →QF33
QF	32	In the last 4 weeks, when you sniffed a drug, how often did you use a straw or paper already used by someone else? *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	

QF	33	In the last 4 weeks, have you smoked any drug by pipe? *If the participant only smoked tobacco do not record this as a positive answer.*	No Yes Refused Don't know/remember	0 1 8 9	→QG01 →QG01 →QG01
QF	34	In the last 4 weeks when you smoked any drug by pipe, how often did you use a pipe already used by someone else? *Tick the category that applies*. *If the participant only smoked tobacco do not record this as a positive answer.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	

SECTION G: NEW AND CLEAN NEEDLES AND SYRINGES

Question number		Questions and filters	Categories			Skip to
QG	01	In the last 4 weeks, could you easily obtain sterile needles and syringes when you needed them? *Important: Explain that the question is about **unused and wrapped needles and syringes.***	No 0 Yes 1 Did not inject in last 4 weeks 3 Refused 8 Don't know/remember 9			→QH01
QG	02	In the last 4 weeks, from which of the following places did you get your sterile needles and syringes? *Important: Explain that the question is about unused and wrapped needles and syringes. This should be emphasised if the respondent mentions sources such as friends, other IDUs or drug dealers.*	No	Yes	Refused	Don't know/ remember
	02A	Bought from a pharmacy	0	1	8	9
	02B	Bought from other shop	0	1	8	9
	02C	Drug agency needle exchange	0	1	8	9
	02D	Pharmacy needle exchange	0	1	8	9
	02E	Mobile exchange	0	1	8	9
	02F	Outreach worker	0	1	8	9
	02G	Friends	0	1	8	9
	02H	Other drug injector	0	1	8	9
	02I	Stolen from pharmacy, shop or hospital	0	1	8	9
	02J	Drug dealer	0	1	8	9
	02K	Other, specify ……	0	1	8	9
QG	03	From all the above-mentioned sources of sterile needles and syringes, could you tell me which one was your main source in the last 4 weeks? *Important: Stress that the question is about unused and wrapped needles and syringes.*	*Register the question number corresponding to the source mentioned by the participant*/__/__/ Refused 88 Don't know/remember 99			
QG	04	In the last 4 weeks how many new, sterile needles and syringes did you have available in total for your personal use? Please include those from any of the above sources, those received from somebody else and any you already had before. *Important: Stress that the question is about new, unused and wrapped needles and syringes.* *If the participant did not have any sterile needles and syringes, register 000.*	Number of sterile needles/syringes /__/__/__/ Refused 888 Don't know/remember 999 *If the answer is 000* →			→ →QG06
QG	05	In the last 4 weeks how many sterile needles and syringes did you get in total **free of charge** (from any of the above places) A*sk her/him to include only **free of charge** unused and wrapped needles and syringes.* *If the participant did not have any sterile syringes, register 000.*	Number of sterile needles/syringes /__/__/__/ Refused 888 Don't know/remember 999			

QG	06	In the last 4 weeks, could you easily obtain sterile or unused **injecting material other than needles and syringes,** namely **spoon/cooker, filter/cotton, acid/lemon juice or rinse water** when you need it?	No Yes Refused Don't know/remember	0 1 8 9	
QG	07	In the last 4 weeks what did you usually do with the needle or syringe after you had injected with it?	Handed to social services, needle exchange programme or similar Put it in the rubbish bin Left it on the street Other, specify…….. Refused Don't know/remember	1 2 3 4 8 9	
QG	08	Did you ever clean the needles or syringes before re-using them?	No Yes Refused Don't know/remember	0 1 8 9	→QH01 →QH01 →QH01
QG	09	In the last 4 weeks when you used needles or syringes already used by someone else how often did you clean them before you used them? *Tick the category that applies.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QG	10	How did you usually clean them? *Do not read the options out. Tick those that she/he mentions. Ask if there were any other.*	Cold water Warm water Hot water Boiling water Soap or detergent Bleach Alcohol Other, specify…… Refused Don't know/remember	01 02 03 04 05 06 07 08 88 99	

SECTION H: SEXUAL BEHAVIOUR

Question number		Questions and filters	Categories		Skip to
		Read to the participant: I am now going to ask you some questions about your sexual behaviour. People often find it difficult to discuss personal sexual issues, so if you don't feel comfortable about answering a question please say so and we will move on. It is better not to give me an answer than to make one up. When we say sexual intercourse or having sex this includes vaginal or anal intercourse. Vaginal intercourse refers to a man's penis in a woman's vagina, and anal intercourse refers to a man's penis in a partner's anus, either woman or man. Do not include oral sex, which refers to a man's penis or woman's vagina in contact with his/her partner's mouth.			
QH	01	Have you had sexual intercourse (vaginal or anal) in the last 12 months?	No Yes Refused Don't know/remember *If the respondent is **female**, skip → to question →QH03*	0 1 8 9 →	→QI01 →QI01 →QI01 *→QH03*
QH	02	*This question should be asked **only** to **male** respondents:* Have you had anal sex with a male in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QH	03	Have you had a **steady or regular** sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH09 →QH09 →QH09
QH	04	Have you had vaginal or anal intercourse with a steady or regular sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH09 →QH09 →QH09
QH	05	If you had more than one **steady or regular** sex partner in the last 12 months, how many of them did you have? *If he/she had only one, write 01*	Number of regular partners /__/__/ Refused Don't know/remember	 88 99	
QH	06	How often did you and all of your steady/regular partner(s) use a condom during vaginal or anal sex in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** stable/regular partner, ask him/her to make a global assessment of condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH08 →QH08
QH	07	Did you use a condom the last time you had vaginal or anal intercourse with a steady/regular partner? *If the respondent had more than one stable/regular partner the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	08	To your knowledge, have any of the steady/regular partners that you had in last 12 months ever injected drugs?	No Yes Refused Don't know/remember	0 1 8 9	

QH	09	*Read to the participant:* The next questions are about **casual partners**. This means someone you have had sexual relations with other than your steady/regular partner(s). If you had sex in exchange for money or other benefits, please do not include them in your answers about casual partners. Have you had **casual partners** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH15 →QH15 →QH15
QH	10	Have you had vaginal or anal intercourse with a casual sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH15 →QH15 →QH15
QH	11	How many casual partners have you had vaginal or anal intercourse with in the last 12 months?	Number of casual sexual partners /__/__/__/ Refused Don't know remember	 888 999	
QH	12	How often did you and all of your casual partner(s) use a condom during vaginal or anal intercourse in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** stable/regular partner, ask them for a global assessment of their condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH14 →QH14
QH	13	Did you use a condom the last time you had vaginal or anal intercourse with a casual partner? *If the participant had more than one casual partner the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	14	To your knowledge, have any of the casual partners that you had in last 12 months ever injected drugs?	No Yes Refused Don't know/remember	0 1 8 9	
QH	15	*Read to the participant:* The next questions are about **sexual activity with people who gave you money, drugs or other benefits for sex**. By sex I mean vaginal or anal intercourse; please do not include oral sex. During the last 12 months, have you had vaginal or anal sexual intercourse **with people who paid you with money, drugs or other benefits for the sex**?	No Yes Refused Don't know/remember	0 1 8 9	→QH19 →QH19 →QH19
QH	16	With how many partners have you had vaginal or anal intercourse in the last 12 months for which you were paid with money, drugs or other benefits?	Number of clients as sexual partners /__/__/__/__/ Refused Don't know remember	 88 99	
QH	17	How often did you use condoms during vaginal or anal intercourse for which you were paid with money, drugs or other benefits in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** client, ask them for a global assessment of their condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH19 →QH19

QH	18	Did you use a condom the last time you had vaginal or anal intercourse with someone who paid you with money, drugs or other benefits for the sex? *If the respondent had more than one of these partners the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	19	*Read to the participant:* The next question is about sexual activity **with people who you paid** with money, drugs or other benefits for sex. By sex I mean vaginal or anal intercourse; please do not include oral sex. Have you had vaginal or anal intercourse with a partner who you paid with money, drugs or other benefits for sex in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH21 →QH21 →QH21
QH	20	With how many partners have you had vaginal or anal intercourse in the last 12 months for which **you paid with money, drugs or other benefits**?	Number of partner that were paid /__/__/__/__/ Refused Don't know remember	 8888 9999	
QH	21	Please think about the most recent time that you had vaginal or anal intercourse. Did you or your partner use a condom on that occasion? *This refers to any type of partner*	No Yes Refused Don't know remember	0 1 8 9	

SECTION I: PRISON

Question number		Questions and filters	Categories		Skip to
QI	01	*Read to the participant:* The next question is about whether you were ever detained or arrested, regardless of whether you were imprisoned or not. How many times have you been detained or arrested in your lifetime? *If the respondent has never been detained, register 00*	Number of times /__/__/ Refused Don't know/remember *If none (00)* →	 88 99 →	 →QI03 →QI03 →QI03
QI	02	Regardless of whether you were imprisoned or not, how old were you when you were detained or arrested for the first time?	Age /__/__/ Refused Don't know/remember	 88 99	
QI	03	Have you ever been in prison? This includes remands in custody.	No Yes Refused Don't know/remember	0 1 8 9	→QJ01 →QJ01 →QJ01
QI	04	Are you currently in prison? This includes remands in custody.	No Yes Refused Don't know/remember	0 1 8 9	→QJ06 →QJ06 →QJ06
QI	05	Since when?	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QI	06	In total, how many times have you been in prison, including remands in custody? *If the respondent is in prison now, the current time should also be counted.*	Number of times /__/__/ Refused Don't know/remember	 88 99	
QI	07	How old were you when you first went to prison, including remands in custody?	Years Old /__/__/ Refused Don't know/remember	 88 99	
QI	08	How old were you when you last went to prison, including remands in custody?	Years Old /__/__/ Refused Don't know/remember	 88 99	
QI	09	Have you ever injected drugs whilst inside prison or in custody?	No Yes Refused Don't know/remember	0 1 8 9	→QJ01 →QJ01 →QJ01
QI	10	When was the last time you injected inside a prison or whilst in custody?	Month/__/__/ Year/__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QI	11	Was the first time you ever injected in your lifetime whilst you were in prison, including remands in custody?	No Yes Refused Don't know/remember	0 1 8 9	

QI	12	When you injected in prison or whilst in custody, how often was it with needles or syringes and other injecting equipment already used by someone else?	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	0 1 2 3 4 8 9	

SECTION J: HIV AND HEPATITIS C TESTING

Question number		Questions and filters	Categories		Skip to
QJ	01	Have you ever had an HIV test?	No	0	→QJ06
			Yes	1	
			Refused	8	→QJ06
			Don't know/remember	9	→QJ06
QJ	02	When was the last time you had an HIV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	03	What was the result of your last HIV test?	Negative	0	→QJ06
			Positive	1	
			Indeterminate	2	→QJ06
			Waiting for the results	3	→QJ06
			Refused	8	→QJ06
			Don't know/remember	9	→QJ06
QJ	04	Was that your first positive HIV test?	No	0	
			Yes	1	→QJ06
			Refused	8	
			Don't know/remember	9	
QJ	05	When was your first positive HIV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	06	Have you ever had an HCV test?	No	0	→QK01
			Yes	1	
			Refused	8	→QK01
			Don't know/remember	9	→QK01
QJ	07	When was the last time you had an HCV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	08	What was the result of your last HCV test?	Negative	0	→QK01
			Positive	1	
			Indeterminate	2	→QK01
			Waiting for the results	3	→QK01
			Refused	8	→QK01
			Don't know/remember	9	→QK01
QJ	09	Was that your first positive HCV test?	No	0	
			Yes	1	→QK01
			Refused	8	
			Don't know/remember	9	
QJ	10	When was your first positive HCV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	

SECTION K: HEALTH CARE

Question number	Questions and filters	Categories	Skip to

Read to the participant:
Now I will ask you a few questions about the health problems that you have had in life, but only about those that you took to the doctor or health services.

QK	01	Have you ever been told by a doctor, nurse, other health professional or counsellor that you had the following: *Please read the list and tick when applicable.*	

		No	Yes	Refused	Don't know/ remember
01a	HIV	0	1	8	9
01b	Hepatitis B	0	1	8	9
01c	Hepatitis C	0	1	8	9
01d	Tuberculosis	0	1	8	9
01e	Endocarditis (heart infections)	0	1	8	9
01f	Pneumonia	0	1	8	9
01g	Cirrhosis of the liver	0	1	8	9
01h	Syphilis	0	1	8	9
01i	Gonorrhoea	0	1	8	9
01j	Genital warts	0	1	8	9
01k	Genital herpes	0	1	8	9
01l	Chlamydia	0	1	8	9
01m	Cancer	0	1	8	9
01n	Abscesses at injection site	0	1	8	9
01o	Abscesses elsewhere on the body	0	1	8	9
01p	Other, specify: ……..	0	1	8	9

If you have never been diagnosed with any of these conditions' →skip to..... →QK03

Medical treatment is defined as having being diagnosed with a disease and being prescribed medicines by a doctor, nurse, other health professional even if the treatment has not been completed.

QK	02	For which of the following have you received medical treatment? I mean, have you received any prescribed medicines by a doctor, nurse or other health professional? *Please read the conditions that the participant mentioned in the previous question, and tick where applicable.*	

		Not received	Received	Refused	Don't know/ remember
02a	HIV	0	1	8	9
02b	Hepatitis B	0	1	8	9
02c	Hepatitis C	0	1	8	9
02d	Tuberculosis	0	1	8	9
02e	Endocarditis (heart infections)	0	1	8	9
02f	Pneumonia	0	1	8	9
02g	Cirrhosis of the liver	0	1	8	9
02h	Syphilis	0	1	8	9
02i	Gonorrhoea	0	1	8	9
02j	Genital warts	0	1	8	9
02k	Genital herpes	0	1	8	9
02l	Chlamydia	0	1	8	9
02m	Cancer	0	1	8	9
02n	Abscesses at injection site	0	1	8	9
02o	Abscesses elsewhere on the body	0	1	8	9
02p	Other, specify: ……..	0	1	8	9

QK	03	*Read to the participant:* The next questions are about **opiate overdose**. I mean an overdose caused by heroin, methadone, or other opioids such as buprenorphine, morphine or codeine that presents generally with the following symptoms: - great difficulty with breathing; - unconsciousness; - frequently, blue lips or blue skin. Have you ever had an overdose with the symptoms mentioned above? *Check with the respondent if the episode is an opiate overdose or any other type of problem. Be aware that cocaine, amphetamine, ecstasy or other stimulants do not have the symptoms mentioned above, but usually involve reddened and hot skin, tachycardia, restlessness and anxiety, and occasionally also convulsions or unconsciousness.*	No Yes Refused Don't know/remember	0 1 8 9	→QK06 →QK06 →QK06
QK	04	In the last 12 months have you had any of those overdoses?	No Yes Refused Don't know/remember	0 1 8 9	→QK06 →QK06 →QK06
QK	05	How many times have you overdosed in the last 12 months? Remember that we are talking about opioid overdoses. *If the participant has never had an opioid overdose register 00.*	Number overdoses /__/__/ Refused Don't know/remember	 88 99	
QK	06	Have you ever received a blood transfusion?	No Yes Refused Don't know/remember	0 1 8 9	→QK08 →QK08 →QK08
QK	07	When did you last receive a blood transfusion?	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QK	08	Have you been tattooed in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QK	09	During last 12 months, have you ever accidentally punctured yourself with a syringe that had been used by somebody else?	No Yes Refused Don't know/remember	0 1 8 9	
QK	10	Have you had a body-piercing done in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QK	11	How would you describe your current health? Would you say it is:	Excellent Good Fair Poor Refused Don't know/remember	1 2 3 4 8 9	

SECTION L: KNOWLEDGE/ATTITUDES

Question number		Questions and filters	Categories		Skip to
QL	01	How many different types of hepatitis have you heard about? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other?'*	Hepatitis A Hepatitis B Hepatitis C Hepatitis D Other, specify: …… Refused Don't know/remember	1 2 3 4 5 8 9	
QL	02	To your knowledge, how are hepatitis B or hepatitis C transmitted? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces any answers that cannot be included in the listed categories.*			

		No	Yes
02a	Sharing needles and/or syringes	0	1
02b	Sharing other drug use equipment	0	1
02c	Having sex (protection not specified)	0	1
02d	Having unprotected sex	0	1
02e	Contact with infected blood	0	1
02f	Contact with other infected body fluids	0	1
02g	Sharing eating/drinking utensils	0	1
02h	Sharing toothbrush, razor	0	1
02i	Infected tattoo/body piercing instruments	0	1
02j	Transfusion of blood or blood products	0	1
02k	Perinatally, from mother to child	0	1
02l	Other, specify:……	0	1
02m	Other, specify:……	0	1

QL	03	Please think now about HIV. How HIV is transmitted? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces those answers that cannot be included in the listed categories.*	

		No	Yes
03a	Sharing needles and/or syringes	0	1
03b	Sharing other drug use equipment	0	1
03c	Having sex (protection not specified)	0	1
03d	Having unprotected sex	0	1
03e	Contact with infected blood	0	1
03f	Contact with other infected body fluids	0	1
03g	Sharing eating/drinking utensils	0	1
03h	Sharing toothbrush, razor	0	1
03i	Infected tattoo/body piercing instruments	0	1
03j	Transfusion of blood or blood products	0	1
03k	Prenatally, from mother to child	0	1
03l	Other, specify:……	0	1
03m	Other, specify:……	0	1

QL	04	From where did you get information about hepatitis and HIV in the last 12 months? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces those answers that cannot be included in the listed categories*		

		No	Yes
04a	Doctor/nurse/other health worker	0	1
04b	Press (radio, TV, newspapers)	0	1
04c	Family, friends	0	1
04d	School/work	0	1
04e	Poster/leaflets	0	1
04f	Injecting drug users	0	1
04g	Drug user's organisation	0	1
04h	Outreach workers (social workers)	0	1
04i	Needle exchange programme	0	1
04j	Safer injection facility	0	1
04k	Drug dependence treatment facility	0	1
04l	Other, specify:……	0	1
04m	Other, specify:……	0	1

QL	05	From the sources of information that you have just mentioned, what was the main source?	*Register the question number corresponding to the source mentioned by the participant* /__/__/__/ Refused Don't know/remember	 888 999	
QL	06	During the last 12 months, have you done anything to avoid contracting HIV or hepatitis yourself or to prevent someone getting it from you?	No Yes Refused Don't know/remember	0 1 8 9	→QM01 →QM01 →QM01
QL	07	What have you done during these last 12 months to avoid contracting or passing on these infections? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write down in the dotted spaces those answers that cannot be included in the listed categories.*			

		No	Yes
	Sex:		
04a	Using condom during **every** intercourse	0	0
04b	Started/increased condom use	0	1
04c	Fewer sexual partners	0	1
04d	Fewer injection drug user partners	0	1
04e	Stopped having sex	0	1
04f	Other, specify:……	0	1
	Drugs:		
04g	Less drug use in general	0	1
04h	Reduced injection of drugs	0	1
04i	Stopped injection of drugs	0	1
04j	Reduced sharing equipment or drug solution	0	1
04k	Stopped sharing equipment or drug solution	0	1
04l	Started/increased cleaning works	0	1
04m	Other, specify:……	0	1

SECTION M: HOMELESSNESS

Question number		Questions and filters	Categories		Skip to
QM	01	Have you ever been homeless, such as living without a steady home, on the streets or temporarily in a hostel or shelter? *If needed, clarify that people living permanently in shelters or special hostels, for example orphans living in state hostels, should not be counted as homeless.*	No Yes Refused Don't know/remember	0 1 8 9	→QN01 →QN01 →QN01
QM	02	How old were you when you first experienced homelessness?	Years old /__/__/ Refused Don't know/remember	 88 99	
QM	03	Have you been homeless any time in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QN01 →QN01 →QN01
QM	04	How long have you been homeless during the last 12 months?	Days /__/__/ Months /__/__/ Refused D Don't know/remember D Refused M Don't know/remember M	 88 99 88 99	

SECTION N: MOBILITY

Question number		Questions and filters	Categories		Skip to
QN	01	Have you ever obtained drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don´t know/remember	0 1 2 8 9	→QN04 →QN04 →QN04
QN	02	In the last 12 months, have you obtained drugs in a city other than this one?	No Yes, in this country Yes, abroad Refused Don´t know/remember	0 1 2 8 9	→QN04 →QN04 →QN04
QN	03	In which cities, other than this one, have you obtained drugs in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently obtained drugs.* *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently obtained drugs.*	City in this country: …… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don´t know/remember City abroad:…….. *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don´t know/remember	 8 9 8 9	
QN	04	Have you ever injected drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes in this country Yes abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End
QN	05	During last 12 months, have you injected drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes in this country Yes abroad Refused Don't know/remember	0 1 2 8 9	→QN07 →QN07 →QN07
QN	06	In which cities other than this one have you injected drugs in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently injected drugs.*	City in this country: ..... *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember City abroad: …… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember	 8 9 8 9	
QN	07	Have you ever injected with a syringe or needle that had already been used by somebody else, in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End

QN	08	In the last 12 months, have you injected with a syringe or needle that had already been used by somebody else, in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End
QN	09	In which cities other than this one have you injected with a syringe or needle already used by somebody else in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently injected with someone else's syringe.*	City in this country: ..... *Leave blank for coding*: /__/__/__/__/__/__/ Refused Don't know/remember City abroad: .....…… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember	 8 9 8 9	

Full list of items in the questionnaire

SECTION A: INTERVIEW INFORMATION

1. Date of interview
2. Interviewer code
3. Participant code
4. Setting code
5. Survey code
6. Written or oral informed consent
7. Biological sample taken
8. Identification code of biological sample/s

SECTION B: ELIGIBILITY CHECK

1. Ever injected
2. Ever used opioids, cocaine and/or amphetamines in the last 12 months
3. Injected in the last 12 months
4. Injected in the last 4 weeks
5. Interviewed before (for surveys)

SECTION C: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Date of birth
2. Sex
3. Country of birth
4. Time living in the country of the study
5. Nationality
6. Self-reported ethnicity
7. Mother's nationality
8. Father's nationality
9. Current place of residence
10. Duration of living in the current place of residence
11. Current living status (with whom)
12. Current living status (where)
13. Duration of living with them
14. Highest educational level completed
15. Years of full education completed
16. Main source of income in the last 12 months

SECTION D: DRUG TREATMENT AND NEEDLE AND SYRINGE PROGRAMMES (NSP)

1. Ever received drug treatment
2. How many times treated
3. When was the first drug treatment
4. When was the last drug treatment
5. Current drug treatment
6. Types of drug treatment ever received
7. Opioid substitution treatment in last 4 weeks
8. Ever used a NSP
9. Use of a NSP in last 4 weeks
10. Ever used a safer injection facility
11. Use of safer injection facility in last 4 weeks.

SECTION E: DRUG USE

1. Use of powder cocaine and heroin mixed together in last 12 months
2. Use of powder cocaine and heroin mixed together in last 4 weeks
3. Injection of mixture of powder cocaine and heroin in last 4 weeks
4. Number of injections of mixture of powder cocaine and heroin in last 4 weeks
5. Use of crack cocaine and heroin mixed together in last 12 months
6. Use of crack cocaine and heroin mixed together in last 4 weeks
7. Injection of mixture of crack cocaine and heroin in last 4 weeks
8. Number of days injected mixture of crack cocaine and heroin in last 4 weeks
9. Use of heroin alone, without mixing it together with any other drug, in last 12 months
10. Use of heroin alone, without mixing it together with any other drug, in last 4 weeks
11. Injection of heroin alone, without mixing it together with any other drug, in last 4 weeks
12. Number of days injected heroin alone, without mixing it together with any other drug, in last 4 weeks
13. Use of powder cocaine alone, without mixing it together with any other drug, in last 12 months
14. Use of powder cocaine alone, without mixing it together with any other drug, in last 4 weeks
15. Injection of powder cocaine alone, without mixing it together with any other drug, in last 4 weeks

16. Number of days injected powder cocaine alone, without mixing it together with any other drug, in last 4 weeks
17. Use of crack cocaine alone, without mixing it together with any other drug, in last 12 months
18. Use of crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
19. Injection of crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
20. Number of days injected crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
21. Use of methadone in last 12 months (including illegally obtained)
22. Use of methadone in last 4 weeks (including illegally obtained)
23. Injection of methadone in last 4 weeks (including illegally obtained)
24. Number of days injected methadone in last 4 weeks (including illegally obtained)
25. Use of buprenorphine in last 12 months (including illegally obtained)
26. Use of buprenorphine in last 4 weeks (including illegally obtained)
27. Injection of buprenorphine in last 4 weeks (including illegally obtained)
28. Number of days injected buprenorphine in last 4 weeks (including illegally obtained)
29. Use of any opioid other than heroin, methadone or buprenorphine in last 12 months
30. Use of any opioid other than heroin, methadone or buprenorphine in last 4 weeks
31. Injection of any opioid other than heroin, methadone or buprenorphine in last 4 weeks
32. Number of days injected any opioid other than heroin, methadone or buprenorphine in last 4 weeks
33. Use of amphetamine or methamphetamine in last 12 months
34. Use of amphetamine or methamphetamine in last 4 weeks
35. Injection of amphetamine or methamphetamine in last 4 weeks
36. Number of days injected amphetamine or methamphetamine in last 4 weeks
37. Use of benzodiazepines in last 12 months (including illegally obtained)
38. Use of benzodiazepines in last 4 weeks (including illegally obtained)
39. Injection of benzodiazepines in last 4 weeks (including illegally obtained)
40. Number of days injected benzodiazepines in last 4 weeks (including illegally obtained)
41. Injection of any other drug (other than above) in last 4 weeks
42. Name of other drugs injected (3 categories)
43. Type of drug most frequently used ('heroin, methadone, buprenorphine, fentanyl, codeine or other opioids' or 'cocaine, crack, amphetamines, methamphetamines, mephedrone, other mephedrone-like drugs or any other type of stimulants')
44. First drug used in lifetime (listed)
45. Age at first use

SECTION F: INJECTING DRUG USE AND SHARING OF INJECTING AND NON-INJECTING EQUIPMENT

1. Age at first injection of drugs
2. Drug of first injection
3. Injection with a used syringe/needle at that first time
4. Place of first injection
5. Last time of injection (day/month/year)
6. Number of days of injection in last 4 weeks
7. Number of injections on an average day (when injected)
8. Use of an sterile needle and syringe on last injection (no reuse)
9. Number of injections with the last needle or syringe before disposing or lending
10. Ever use of used needles or syringes given, lent, rented or sold by somebody else
11. Last time use of needles or syringes given, lent, rented or sold (already used by somebody else)
12. Frequency of use of needles or syringes given, lent, rented or sold in last 4 weeks (already used by somebody else)
13. Type of person from whom the syringes were obtained in last 4 weeks
14. Obtaining used syringes from a person known to be HCV, HIV or HBV positive in last 4 weeks
15. Number of persons from whom used needles or syringes were obtained in last 4 weeks
16. Ever use of spoon, cooker, filter or rinsing water already used by somebody else
17. Last use of spoon/cooker, filter/cotton, acid/lemon or rinsing water (already used by somebody else)
18. Frequency of use of spoon/cooker, filter/cotton, acid/lemon or rinsing water in last 4 weeks (already used by somebody else)
19. Type of person from whom spoon/cooker, filter/cotton, acid/lemon or rinsing water was taken in last 4 weeks (already used by somebody else)
20. Taking used spoon/cooker, filter/cotton, acid/lemon or rinsing water in last 4 weeks from a person known to be HIV, HBV or HCV positive
21. Number of persons from whom used spoon/cooker, filter/cotton, acid/lemon or rinsing water was taken in last 4 weeks
22. Ever giving, lending, renting or selling to someone (including partner) a used needle or syringe

23. Last time giving, lending, renting or selling to someone (including partner) a used needle or syringe
24. Frequency of giving, lending, renting or selling to someone (including partner) a used needle or syringe in last 4 weeks
25. Type of person to whom gave, lent, rented or sold a used needle or syringe in last 4 weeks
26. Ever use of a syringe after it had been filled from somebody else's used syringe (frontloading/backloading/splitting)
27. Last time of frontloading/backloading/splitting
28. Frequency of frontloading/backloading/splitting
29. Ever receiving an injection from another person
30. Receiving an injection from another person in last 4 weeks
31. Sniffing a drug in last 4 weeks
32. Frequency of use of a straw already used by somebody in last 4 weeks
33. Smoking in pipe in last 4 weeks
34. Frequency of smoking in pipe in last 4 weeks.

SECTION G: NEW AND CLEAN NEEDLES AND SYRINGES

1. Availability of sterile needles/syringes in last 4 weeks
2. Places of acquisition of sterile syringes and syringes:

2a. Bought from a pharmacy
2b. Bought from other shop
2c. Drug agency needle exchange
2d. Pharmacy needle exchange
2e. Mobile exchange
2f. Outreach worker
2g. Friends
2h. Other drug injector
2i. Stolen from pharmacy, shop or hospital
2j. Drug dealer
2k. Other

3. Main source of sterile syringes and needles
4. Number of sterile syringes and needles obtained in last 4 weeks
5. Number of sterile syringes and needles free of charge obtained in last 4 weeks
6. Availability of sterile or unused injecting material other than needles and syringes in last 4 weeks
7. Choices of disposing of needles and syringes
8. Ever cleaning needles and syringes before reusing them
9. Frequency of cleaning needles and syringes before reusing them in last 4 weeks
10. Way of cleaning used needles

SECTION H: SEXUAL BEHAVIOUR

1. Sexual intercourse in last 12 months
2. Anal sex with a male in the last 12 months (only for men)
3. Steady or regular sexual partner in last 12 months
4. Vaginal or anal intercourse with a steady or regular sexual partner in last 12 months
5. Number of steady or regular sexual partners in last 12 months (if more than one)
6. Frequency of condom use with steady or regular sexual partner in last 12 months
7. Use of condom for the last vaginal or anal intercourse with steady sexual partner
8. Any steady sexual partner(s) in last 12 months who ever injected drugs
9. Any casual sexual partner in last 12 months
10. Vaginal or anal intercourse with a casual partner in last 12 months
11. Number of casual partners in last 12 months
12. Frequency of condom use with casual partner in last 12 months
13. Use of condom for the last vaginal or anal intercourse with a casual sexual partner
14. Any casual partner(s) in last 12 months who ever injected drugs
15. Received money, drugs or other benefits in exchange for vaginal or anal intercourse in last 12 months
16. Number of sexual partner in last 12 months from whom received money, drugs or other benefits in exchange
17. Frequency of condom use with sexual partners from whom received money, drugs or other benefits in exchange, in last 12 months
18. Use of condom for the last vaginal or anal intercourse with partners from whom received money, drugs or other benefits in exchange
19. Vaginal or anal intercourse with partner to whom money was given in exchange for sex in last 12 months
20. Number of partners to whom money was given in exchange for sex in last 12 months
21. Use of condom in the most recent vaginal or sexual intercourse (any type of partner)

SECTION I: PRISON

1. Number of times arrested or detained in lifetime
2. Age at first arrest
3. Ever in prison (including remands in custody)
4. Currently in prison (including remands in custody)
5. Since when in prison
6. Number of times in prison (including remands in custody)
7. Age at first time in prison
8. Age at last time in prison
9. Ever drug injection while in prison
10. When was last drug injection while in prison
11. Was the above the first drug injection in lifetime
12. Frequency of injection in prison with needles, syringes or other equipment already used by others

SECTION J: HIV AND HEPATITIS TESTING

1. Ever had HIV test
2. When was last HIV test
3. Results of last HIV test
4. Was the above the first positive HIV test
5. When was the first positive HIV test
6. Ever had HCV test
7. When was last HCV test
8. Results of last HCV test
9. Was the above the first positive HCV test
10. When was the first positive HCV test

SECTION K: HEALTH CARE

1. Diseases participant has been diagnosed with
2. Diseases ever treated
3. Ever opioid overdose
4. Opioid overdose in last 12 months
5. Number of opioid overdoses in last 12 months
6. Ever had blood transfusion
7. When last blood transfusion
8. Been tattooed in last 12 months
9. Ever accidentally punctured self with somebody's used syringe
10. Body-piercing in last 12 months
11. Perceived health status

SECTION L: KNOWLEDGE/ATTITUDES

1. Types of hepatitis that participant knows of
2. Modes of HBV or HCV transmission
3. Modes of HIV transmission
4. Sources of information on hepatitis and HIV in last 12 months
5. Main source of information
6. Use of preventive measures to avoid HIV or hepatitis in last in last 12 months
7. Type of preventive measures used to avoid HIV or hepatitis in last 12 months

SECTION M: HOMELESSNESS

1. Ever homeless
2. Age at first time homelessness
3. Homeless in last 12 months
4. How long homeless in last 12 months (days/months)

SECTION N: MOBILITY

1. Ever obtained drugs in another city
2. Obtained drug in another city in last 12 months
3. Which cities others than the study one where participant obtained drugs in last 12 months
4. Ever injected in another city
5. Injected in another city in last 12 months
6. Which cities others than the study one where participant injected during last 12 months.
7. Ever injected with a used syringe or needle in another city
8. Injected with a used syringe or needle in another city in last 12 months
9. Which cities others that the study one where participant used syringe or needle in last 12 months

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Abbreviations

CIBERESP	Consortium for Biomedical Research in Epidemiology and Public Health, Spain
DRID	drug related infectious diseases
ECDC	European Centre for Disease Prevention and Control
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EQ	Example Questionnaire [Example questionnaire for bio-behavioural surveys in people who inject drugs]
FHI	Family Health International
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
ISCIII	Instituto de Salud “Carlos III” [“Carlos III” Health Institute], Spain
IDUs	people who inject drugs [injecting drug users]
OPS/OMS	Organización Panamericana de la Salud/Organización Mundial de la Salud (Pan American Health Organization/World Health Organization)
PAHO	Pan American Health Organization
PDU	problem drug user
Reitox	Réseau Européen d’Information sur les drogues et les Toxicomanies (European Information Network on Drugs and Drug Addiction)
ST9	Standard Table 9
UMHRI	University Mental Health Research Institute, Greece
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

European Monitoring Centre
for Drugs and Drug Addiction

DRID Guidance Module

BEHAVIOURAL INDICATORS FOR PEOPLE WHO INJECT DRUGS

EMCDDA DRID Behavioural Indicators Module
VERSION 1.0

27/01/2014

EMCDDA Drug Related Infectious Diseases (DRID) Monitoring Guidance Toolkit

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Preface

This module forms part of the drug related infectious diseases (DRID) 'Toolkit', a series of modules providing guidance on different aspects of DRID monitoring. This Toolkit will form an updated version of the 2006 draft DRID protocol (EMCDDA, 2006) and earlier European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) guidance (EMCDDA, 2000a) including the Standard Table 9 (ST9) reporting formats.
www.emcdda.europa.eu/themes/key-indicators

Specifically, this module and the corresponding Fonte template provide an update to the pilot version of ST9 part 3 that was developed by the EMCDDA in 2006 and that has been used since. The improved definitions and indicators herein reflect the growing consensus in the European DRID research community regarding the need for comparable indicators and data on infectious diseases among people who inject drugs. Notwithstanding, indicators have, as much as possible, been maintained unchanged in order to facilitate continued data collection over time. For many — but not all — of the indicators proposed here, data comparison will be directly possible between the 2006 version of ST9 part 3 and the formats proposed in this module. The main changes are that better-defined formats are proposed — principally to adhere to one preferred recall period of either '4 weeks' or '12 months' as well as defining more precisely the indicator components — while a number of more precise 'Optional' indicators has been added to the original list of indicators. For a detailed overview of changes to the 2006 pilot version see Annex 2.

While the list of indicators may seem long it is not intended to be prescriptive, and in order to make the list more user friendly it follows a three-level hierarchy of priorities. Thus it includes:

- A limited number of four 'Core' indicators for systems that do not specialise in drug use and where only a limited number of variables on drug users can be collected.

- A longer list of 14 'Additional' indicators that may be included in most specialised systems. Although most of them already existed in the 2006 version of ST9 part 3, and some in ST9 part 2 (as breakdowns of the prevalence of infection), all of them have been gathered into ST9 part 3 for consistency, as they are often not reported in ST9 part 2 when infection prevalence is low. Therefore most of these (including the basic demographic variables age, sex, years injecting, primary drug and ever in prison) do not imply additional data collection.

- A further list of 'Optional' indicators that might only be included in specific studies with larger questionnaires and with more time per interview. These indicators are mostly not requested by the EMCDDA — although countries are encouraged to consider using some or most of them at the national level, where this is feasible. There are 26 Optional indicators in total, consisting mostly of a population mean or median that may be easily provided once the Core or Additional indicator (these are formatted as a percentage) is already collected. In most cases, these Optional indicators do not imply that respondents are asked extra questions.

This module is closely linked to the module 'Example questionnaire for bio-behavioural surveys in people who inject drugs' (EMCDDA, 2013), which provides examples of questions that could be used to derive the data for these indicators. Those questions are copied into this module at the end of each indicator section; however, to see them in conjunction and to understand how they could be embedded in a longer (study) questionnaire, refer to the 'DRID Example Questionnaire' module.

This module is numbered version 1.0 as some future changes and updates may be necessary, even if the general principle is maintained of not changing indicator formats if not really necessary. In further work, for example, the inclusion of indicators on HIV and HCV antiviral treatment may be considered. At present this is believed to be difficult due to lack of information regarding valid and reliable indicators of self-reported antiviral treatment uptake.

Authors and acknowledgments

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Substantial input was given by (in alphabetical order): Anastasios Fotiou*, Don Des Jarlais*, Doris Radun*, Leonie Prasad*, Mirjam Sabin*, Robert Heimer*, Viktor Mravcik*, Vivian Hope*.

We are also grateful for important input from: Catharina Matheï*, Esther Croes*, Lisa Johnston*, Magdalena Rosinska*, Marcis Trapencieris*, Marie Jauffret-Roustide*.

Respondents to the 2010 survey of European experts on these indicators were: Alain Origer, Anastasios Fotiou*, Andrea Tramarin, Andrei Botescu, Anna Tarján, Ave Talu and Katri Abel-Ollo, Don Des Jarlais*, Doris Radun*, Esther Croes*, Cinta Folch, Gabor Gazdag, Gianfranco Spiteri, Hans Blystad* and Ellen Amundsen, Henrikki Brummer-Korvenkontio, Raina Ilieva, Ilonka Horvath and Martin Busch, Irena Klavs*, Marie Jauffret-Roustide*, José Pádua, József Rácz, Niklas Karlsson, Leonie Prasad*, Magdalena Rosinska, Mária Dudás, María José Bravo*, Natasa Savvopoulou, Vlastimil Necas, Robert Heimer*, Sharon Hutchinson*, Slávka Lenerová, Tiphaine Canarelli, Vivian Hope*, Vitomir Burek, Vytautas Gasperass.

We also thank ECDC (Anastasia Pharris*, Mika Salminen*, Erika Duffel), UNAIDS (Miriam Sabin*) and WHO (Jesus García Calleja*, Martin Donoghoe), and EMCDDA colleagues Alessandra Bo, Alessandro Pirona, Andre Noor, Anna Gyarmathy, Bruno Guarita, Cecile Martel, Dagmar Hedrich, Danica Klempová, Dominique Lopez, Eleni Kalamara, Isabelle Giraudon, Jane Mounteney, Julian Vicente, Katerina Skarupova, Klaudia Palczak, Linda Montanari, Luigi Nisini, Marica Ferri, Paul Griffiths, Sandrine Sleiman, Teodora Groshkova and Ulrik Solberg for their comments and suggestions.

We are grateful for additional input from other colleagues, including the participants of the EMCDDA DRID expert meetings 2007–11, who have provided additional comments and suggestions during the discussions and workshops in these meetings: Alain Origer, Ana Martins, Anda Karnite, Andrea Tramarin, Anneli Uuskula, Arzu Dalmış, Asena Mateeva, Barbora Orlikova, Blanca Castillo, Bogdan Gheorghe, Branko Kolarić, Canan Yilmaz, Caroline Semaille, Catharina Matheï, Charlotte Wirl, Colin Taylor, Dmitry Chernyshev, Elena Alvarez, Elsa Maia, Eva Machova, Eva Ščerba, Fortune Ncube, Frida Hansdotter, George Peschanskih, Gianfranco Spiteri, Giedrius Likatavicius, Giuseppe Salamina, Graça Vilar, Heiko Jahn, Irma Caplinskiene, Jan Fouchard, Jean Long, Jenneke van Ditzhuijzen, Jevgenia Epštein, John V. Parry, Kaat Bollaerts*, Kari Grasaasen, Katerina Skarupova, Keith Sabin, Ksenia Eritsyan, Kuulo Kutsar, Leonie Prasad, Lillebil Nordén, Lucian Suditu, Mª Encarnación Monzó Castellano, Marc Rondy, Marcis Trapencieris, Mária Dudás, Maria Spyropoulou, Mário Castro, Mario Cruciani, Marita van de Laar*, Marko Markus, Marta Struzik, Martin Donoghoe*, Maud Pousset, Mehmet Akgun, Milica Georgescu, Mirjam Kretzschmar, Monica K. Nordvik, Moses Camilleri, Natasa Savvopoulou, Nathalie Deprez, Noel Craine, Peter Vickerman, Peyman Altan, Rafael Mikolajczyk, Riku Lehtovuori*, Robert Broadhead*, Rui Pedro, Russell Barbour, Ruth Zimmermann, Silvia Slezakova, Silvia Zanone, Sofia Lopes da Costa, Stine Nielsen, Susan Cowan*, Suzi Lyons, Svetlana Sidyak, Tanja Kustec, Tessa Windelinckx, Tommi Asikainen, Viktor Mravcik, Vyatcheslav Baturin, Ziv Shkedy.

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The work described here builds on the 'pilot version of ST9 part 3', developed by the EMCDDA in 2006. In addition, this work substantially benefited from the work on the draft DRID protocol, and in particular on the 'DRID example questionnaire' included in that protocol, produced by the Greek national focal point and the EMCDDA in 2006 (EMCDDA, 2006). The development of the draft DRID protocol was coordinated by Katerina Kontogeorgiou and Manina Terzidou (Greek National Focal Point) and Lucas Wiessing, Danica Klempova, Colin Taylor and Paul Griffiths (EMCDDA), with contributions from Clive Richardson, Anastasia Drymousi, Georgia B. Nikolopoulou, Maria Hadjivassiliou, Irene Vafiadi-Zoubouli, Viktor Mravcik, Maria Jose Bravo, Anneke Krol, Lubomir Okruhlica, Vivian Hope and Françoise Dubois-Arber.

Recommended citation:
European Monitoring Centre for Drugs and Drug Addiction (2013), *DRID Guidance Module: Behavioural indicators for people who inject drugs,* EMCDDA, Lisbon.

1. Background and objective

Behavioural and sociodemographic information are very important in the context of human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV) monitoring, given that transmission in people who inject drugs (injecting drug users/IDUs) and other risk groups strongly depends on specific risk behaviours such as needle sharing and unprotected sex, as well as on socioeconomic, policy and other environmental factors such as marginalisation and availability of and contact with services. In addition, information regarding contact with services is key for evaluating drug and infectious diseases prevention and treatment policies.

Despite its importance, behavioural and sociodemographic information regarding blood borne infections and other infections in IDUs has not, to date, been systematically collected at the European level, even if in some countries various national or sub-national studies have been collecting such information already for many years (ECDC, 2009; Hope et al., 2011b).

With this document the EMCDDA aims to propose a set of indicators that allow comparable, reliable and policy-relevant data to be collected on behavioural and sociodemographic aspects of the epidemiology of blood-borne infections in IDUs in Europe. These indicators form an updated and revised version of a pilot set of indicators introduced in 2006 (EMCDDA, 2006).

Box 1.

> Objective: to propose a set of indicators that allow comparable, reliable and policy-relevant data to be collected on behavioural and sociodemographic aspects of the epidemiology of blood-borne infections in IDUs in Europe.

One of the reasons why these data are still not fully collected at the European level is the wide diversity of indicators and formats of data collection that have been used in many different studies. Since about 2004, discussions in the annual DRID expert meetings have led to growing consensus regarding the formats and indicators that could be used at the European level, which are reflected in this document.

Injecting drug use has driven the HIV epidemic in many countries. As a consequence, since the mid-1980s different national and international institutions have defined many surveillance indicators to monitor the changes in IDUs' risk behaviours and their access to health service. Thus, HIV and other blood-borne infections surveillance among IDUs has been mainly focused on the following areas:

- injecting risk behaviour;
- sexual risk behaviour;
- health services access:
    - blood-borne testing uptake;
    - drug dependence treatment access (opioid substitution therapy);
    - sterile needle/syringe access;
- sociodemographic conditions: gender, age, homelessness or other risk factors for HIV infection that allow the surveillance data to be contextualised.

Since its inception in 1995, and together with its national partners, the EMCDDA has been monitoring HIV and viral hepatitis (B and C) prevalence in IDUs in Europe, in order to provide sound data for drug and public health policies (EMCDDA, 2012a; Wiessing and Nardone, 2006; Wiessing et al., 2004, 2008a, 2008b, 2011).

Data are collected through its Standard Table 9 (ST9) reporting templates within the online data collection system 'Fonte'. This forms part of its drug-related infectious diseases (DRID)

activities, which are one key aspect ('key epidemiological indicator') of the drugs problem and its consequences (www.emcdda.europa.eu/themes/key-indicators).

Aggregated data on study methods (ST9 part 1) and biological test results (ST9 part 2) from existing bio-behavioural studies in IDUs have been collected and reported through ST9 (www.emcdda.europa.eu/stats10/drid). Since 2003 notifications data has also been collected for hepatitis B and C (ST9 part 4). In addition, a need was expressed in DRID expert meetings to start collecting information on behavioural and sociodemographic variables from the seroprevalence (biological) studies already reported, which often also collect behavioural data (ST9 part 3).

International thinking around HIV/AIDS surveillance has similarly evolved, from an approach centred on monitoring sero/biological and case reporting data to a broader 'second generation' concept. This takes into account more data sources, including behavioural information (WHO and UNAIDS, 2000), as was already standard practice in many epidemiological research studies. The EMCDDA aims to extend this broader monitoring approach to neighbouring DRID areas relevant for IDUs, including monitoring and understanding risks and behaviours linked to viral hepatitis (B and C) and potentially to other infectious diseases (e.g. other viral hepatitis, sexually transmitted infections, tuberculosis, other bacterial infections) in people who inject drugs (Reintjes and Wiessing, 2007).

This module provides an overview of the behavioural indicators collected through ST9. These are mostly concentrated in ST9 part 3; however, some behavioural information is additionally collected through ST9 part 2 as breakdown variables of the sero/biological data, and in part 1 as part of the information on study methods and characteristics. Thus, for a bio-behavioural study the Fonte templates for ST9 parts 1, 2 and 3 would be filled in, whereas for a behavioural study where no biological results are being collected only parts 1 and 3 may be used. In addition, hepatitis B and C notification data are collected in ST9 part 4. These are not discussed here, given the very different nature of those data, which may be dealt with in a separate module (see draft DRID Toolkit outline) ([1]). For an overview of the different areas of data collection through ST9 see Box 2 and Table 1.

Given the developmental nature of ST9 part 3 and the extra resource implications of the data provision through this template it remains for the time being voluntary. Nevertheless, countries are strongly encouraged to take part. The first data collection based on the 2006 pilot version of ST9 part 3 is already providing important data, especially with regard to countries where HIV incidence among IDUs is high or at risk of rising (Wiessing et al., 2011; Pharris et al., 2011; DRID expert meetings and joint ECDC/EMCDDA risk assessment meetings in 2011 and 2012).

Box 2.

Overview of HIV and HBV/HCV second generation surveillance data collected by the EMCDDA through ST9 and Fonte (see Table 1):

- study method and settings, ST9 part 1;
- biological indicators, ST9 part 2;
- behavioural indicators, ST9 part 3;
    - Core indicators;
    - Additional indicators;
    - Optional indicators;
- hepatitis B and C notification indicators and methods/ definitions, ST9 part 4.

[1] Since 2012 the ECDC has collected these data as well. In order to avoid duplicate reporting, both agencies are working together to hand over data collection from the EMCDDA to ECDC on this topic.

Table 1. Epidemiological indicators in Standard Table 9 (ST9)

SAMPLE AND METHODS DESCRIPTION OF BIO-BEHAVIOURAL STUDIES (ST9 part 1) — **SEE ANNEX 3**	Definition of injectors (ever IDUs, current IDUs, IDU status not known)
	Sampling inclusion criteria (yes/no: sample was restricted by time since first injection, gender, age)
	Recruitment setting (multiple settings can be ticked — see list ….)
PREVALENCE OF HIV OR HBV/HCV AND BREAKDOWNS (ONLY FOR HIV AND HCV), WITH % INFECTED AND SAMPLE SIZE FOR EACH CATEGORY (ST9 part 2) — **SEE ANNEX 3**	Overall prevalence in the sample of IDUs
	Prevalence by gender (males, females)
	Prevalence by age (<25, 25–34, >34 years)
	Prevalence by years since first injection (<2, 2<5, 5<10, 10 or more years)
	Prevalence by primary drug injected (opioids, other than opioids)
	Prevalence by first treatment demand (IDUs entering first treatment ever, all other IDUs)
	Prevalence by prison history (ever in prison, never in prison)
BEHAVIOURAL INDICATORS (ST9 part 3) AS DETAILED IN THE PRESENT MODULE	**SEE TABLE 2 (Core and Additional indicators) AND ANNEX 1 (Optional indicators)**
HEPATITIS B AND C NOTIFICATIONS (ST9 part 4)	Methodological information
	Data for: all cases, all cases with transmission route known, all IDU cases
	IDU data broken down by gender, age and years since first injection (same categories as above)

2. Overview of the behavioural indicators

The EMCDDA ST9 Core behavioural indicators are a very short set of four behavioural measurements deemed essential to the surveillance of blood-borne infections, in particular by monitoring the sharing of injecting equipment and uptake of HIV or HCV testing. The recommendation is to complement these, where the setting allows, with all the Additional indicators, which include sexual risk indicators and intervention coverage indicators, or at least those that are regarded most important for a given national epidemiological situation. In studies where larger questionnaires are being used it is suggested that including (most of) the Optional indicators should also be considered.

The proposed behavioural indicators are presented with three levels of priority.

Box 3.

Three levels of priority:

- Core;
- Additional;
- Optional.

Countries are encouraged to include first the four Core indicators in all data settings that provide DRID data.

Then, where possible, try to include the 14 Additional indicators in those settings that allow this.

Finally try to include from the Optional indicators those that can be implemented as well and are deemed important, depending on the study setting or data availability and the epidemiological situation in the country. Note that many of the Optional indicators are a population mean or median that is based on the same data as a corresponding Additional indicator, thus implying no extra data collection. Most of the Optional indicators will not be collected by the EMCDDA but are suggested for use at national or sub-national levels, and only six Optional indicators are included in the Fonte ST9 part 3 template to be collected at the EMCDDA level. See the Fonte template.

2.1 Core indicators

Box 4.

Four ‘Core’ indicators:

- two on injecting risk behaviour;
- two on blood-borne virus testing uptake.

- Indicator C1: % current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on).
- Indicator C2: % current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on).
- Indicator C3: % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months.

- Indicator C4: % ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months.

2.2 Additional indicators

Box 5.

Fourteen 'Additional' indicators ([2]):

- two on injecting risk behaviour;
- three on sexual risk behaviour;
- two on intervention coverage;
- seven on socio-demographic conditions.

- Indicator A1: % current IDUs who report the use of a sterile needle/syringe the last time they injected.
- Indicator A2: % current IDUs injecting once per day or more in the last 4 weeks.
- Indicator A3: % ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months.
- Indicator A4: % ever-IDUs who report the use of a condom at last sexual intercourse.
- Indicator A5: % ever-IDUs who report sexual intercourse with more than one partner in the last 12 months.
- Indicator A6: % current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks.
- Indicator A7: % opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks.
- Indicator A8: % ever-IDUs under age 25.
- Indicator A9: % females among ever-IDUs.
- Indicator A10: % ever-IDUs with less than 2 years since their first injection.
- Indicator A11: % ever-IDUs who report an opioid as their primary drug in the last 4 weeks.
- Indicator A12: % ever-IDUs who report having ever been in prison.
- Indicator A13: % ever-IDUs born outside the country of study.
- Indicator A14: % ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months.

[2] Core, Additional and Optional indicators are numbered consecutively throughout the thematic sections (injecting risk, testing, sexual risk, intervention coverage or sociodemographic) and starting with the four sections that contain Core indicators. Thus in those sections Core, Additional and Optional indicators are combined depending on the priority that was assigned to those indicators by the expert group.

2.3 Optional indicators

Box 6.

> In addition, there are a further 22 ‘Optional’ indicators.
>
> These are mostly breakdowns or more specific versions of the Core or Additional indicators (many are simple measures such as means and medians).
>
> It is likely to be more feasible to include Optional indicators in specific studies among IDUs where larger questionnaires are used.

See Table 2 for an overview of the Core and Additional indicators and Annex 1 for an overview of the Optional indicators. Table 2 and Annex 1 also indicate the thematic area and the corresponding questions in the DRID Example Questionnaire for each behavioural indicator.

Table 2. Core and Additional behavioural indicators in ST9 part 3

CORE/ PRIORITY STATUS	THEMATIC INDICATOR GROUP		DRID EXAMPLE QUESTIONNAIRE	Section	Page
CORE INDICATORS	INJECTING RISK	C1 % current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on)	QF05, QF11, QF23	4.1	16
		C2 % current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/ syringes (using together, receiving or passing on)	QF05, QF17, QF20	4.2	18
	TESTING	C3 % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months	QB01, QJ02, QJ03	4.3	19
		C4 % ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months	QB01, QJ07	4.4	21
ADDITIONAL INDICATORS	INJECTING RISK	A1 % current IDUs who report the use of a sterile needle/syringe the last time they injected	QF05, QF08	4.5	23
		A2 % current IDUs injecting once per day or more in the last 4 weeks	QF05, QF06, QF07	4.7	25
	SEXUAL RISK	A3 % ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months	QB01, QH15	4.9	28
		A4 % ever-IDUs who report the use of a condom at last sexual intercourse	QB01, QH01, QH21	4.11	30
		A5 % ever-IDUs who report sexual intercourse with more than one partner in the last 12 months	QB01,QH05,QH11,QH16,QH20	4.12	33
	INTERVENTION COVERAGE	A6 % current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks	QF05, QG02, QG04	4.13	34
		A7 % opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks	QB01, QD07,QE02, QE06, QE10, QE22, QE26, QE30	4.14	36
	SOCIODEMOGRAPHIC	A8 % ever-IDUs under age 25	QA01, QB01, QC01	4.15	38
		A9 % females among ever-IDUs	QB01, QC02	4.16	39
		A10 % ever-IDUs with less than 2 years since their first injection	QA01, QB01, QC01, QF01	4.17	40
		A11 % ever-IDUs who report an opioid as their primary drug in the last 4 weeks	QB01, QE43	4.18	42
		A12 % ever-IDUs who report having ever been in prison	QB01, QI03	4.19	43
		A13 % ever-IDUs born outside the country of study	QB01, QC03	4.20	44
		A14 % ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months	QB01, QM03	4.21	44

3. Methodological notes

The work described here is the result of multiple expert meetings, workshops and surveys with Member States performed by the EMCDDA in collaboration with other institutions working on similar indicators, notably the European Centre for Disease Prevention and Control (ECDC) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

The selection and prioritisation of Core, Additional and Optional behavioural indicators for the EMCDDA ST9 part 3 has taken into account the large amount of work that has been put into developing standardised indicators for HIV second generation surveillance by UNAIDS (UNAIDS, 2009; UNAIDS et al., 2000), ECDC (ECDC, 2009, 2010), and the World Health Organization (WHO) (WHO and UNAIDS, 2000, 2002; PAHO–WHO, 2008a, 2008b, 2008c; WHO et al., 2009), as well as important contributions from other institutions such as the Centers for Disease Control and Prevention (CDC) (Allen et al., 2009; Lansky et al., 2007; Gallagher et al., 2007) and Family Health International (FHI, 2000).

In addition, the following study questionnaires have been reviewed (see References): WHO, 2000; SCIEH, 1999; RIVM, 2002; Czech National Focal Point (NFP), 2003; ISCIII, 2001; EMCDDA, 2000b; HPA, 2003; Stimson et al., 1998; PAHO–WHO, 2008b, 2008c.

Furthermore, a detailed expert consultation has taken place where national experts in European countries and beyond (including the members of the EMCDDA DRID Protocol Advisory Group) have given their opinions and provided scientific evidence on a large number of unresolved questions, leading to a reproducible and documented process of using expert opinion to reach final decisions, which in many cases were based on documented empirical evidence from the experts' studies (EMCDDA, 2011). Finally, the results were discussed in the annual DRID expert meetings and workshops where outstanding issues were resolved (see annual DRID meeting reports).

Although effort has been made to include accurate and reliable indicators, their quality as well as their usefulness will very much depend on the epidemiological situation of the drug injection epidemic in a given country. Thus, it could be the case that in a given country, region or city some Additional or even Optional indicators would be considered as important as the Core indicators.

The indicators described here should be applied either to:

- ever-IDUs: 'having ever injected drugs for a non-medical purpose, even if once'; or
- current IDUs: 'having injected drugs in the last 4 weeks'.

The EMCDDA collects prevalence of infection (HIV, viral hepatitis, other ([3])) using both definitions of the IDU population, depending on data availability in the country. For each of the behavioural indicators discussed here the widest possible definition is used; for example, questions on sexual risk behaviour or testing for infectious diseases can and should be asked to all ever-IDUs, whereas questions on needle sharing in the last 4 weeks can only be asked of IDUs who have injected in the last 4 weeks and are thus limited to current IDUs.

Where studies or monitoring systems are limited to data collection from current IDUs only, the definitions of 'ever-IDU' and 'current IDU' coincide (given that all current IDUs are ever-IDUs). Therefore in such datasets all indicators can be provided simply based on those current IDUs, even if the indicator is defined as a percentage of ever-IDUs. Conversely, in studies that include IDUs who have not injected in the last 4 weeks the sample sizes will be different for the indicators, depending on whether they are defined for current or for ever-IDUs. Note that the data provided for ever-IDUs should always include all current IDUs as well.
Box 7.

[3] The EMCDDA collects prevalence of HIV, HCV and HBV through the data templates in the online system Fonte. Information and data on other infectious diseases (other viral hepatitis, TB, STIs, other bacterial infections) are collated annually through narrative national reports.

Indicators cover either ‘ever’ or ‘current’ IDUs:

- ever-IDUs for issues that are unrelated to the frequency/periodicity of injection (e.g. testing, sexual risk behaviour);
- current IDUs (injected in last 4 weeks) for issues that relate to current injecting risks (e.g. needle sharing in the last 4 weeks);

The indicators for ever-IDUs should always also be applied to current IDUs, as current IDUs are by definition also ever-IDUs.

Studies focus on current or on ever-IDUs depending on their objectives. For example, to monitor ongoing injecting risk behaviours in countries with a low prevalence of infection among current IDUs, current IDUs may be the most appropriate group. Whereas in a high prevalence country with high risk of sexual transmission and where issues of diagnosis and antiviral treatment uptake are important the study might aim to include all the ever-IDUs. In countries that have never carried out studies among IDUs before and where current injecting is low or the IDU population is small, a first study might focus on ever-IDUs to make sure that a sufficient sample size and statistical power is obtained at least for questions relating to ever-IDUs. It should be borne in mind, however, that in studies where ever-IDUs are included several questions and indicators are not applicable to those who have not injected recently, resulting in less efficient sampling and research (from the perspective of studying current injection-related risks) and in the questionnaires large sections will be skipped (also reducing the average interview time).

The indicators have different recall periods, depending on the frequency of behaviour being explored. For frequent behaviours (e.g. injecting, needle sharing) a period of ‘last 4 weeks’ has been chosen, consistent with the definition of ‘current injectors’ discussed above, and (almost) consistent with other guidance (EMCDDA, 2012b; UNAIDS, 2009; FHI, 2000; PAHO–WHO, 2008b, 2008c; WHO et al., 2009; Dubois-Arber et al., 2011). Although in these other guidelines the definition is slightly different (i.e. ‘last 30 days’), in the DRID expert meetings leading to this module it was decided that this difference can be ignored and data are comparable, given the large uncertainty in recalling past behaviours. A preference was given to using ‘last 4 weeks’ based on experts reporting evidence from some countries that this format is easier to apply in interviews (EMCDDA, 2011). For less frequent behaviours or phenomena (e.g. sexual behaviours, testing uptake, homelessness) a recall period of ‘last 12 months’ has been chosen, consistent with other guidance (UNAIDS, 2009; FHI, 2000; PAHO–WHO, 2008b, 200c).

One of the main problems in the development of this module has been the variety of recall periods in use in Europe. Although many studies use ‘last 4 weeks’ or similar definitions (‘last 28 days’, ‘last 30 days’, ‘last month’), or ‘last 12 months’ for less frequent behaviours, several established studies use a ‘last 6 months’ period based on earlier WHO guidance and/or based on cohort studies with biannual follow-up. Yet other studies use data from administrative systems (e.g. drug treatment monitoring) that provide data by ‘calendar year’ for some variables (e.g. treatment entries).

Different recall periods are necessary depending on the frequency of a behaviour (Des Jarlais et al., 2006). To allow data comparison across these studies it is recommended that studies using recall periods that are different from those proposed here include in their questionnaire a question that allows for some limited comparisons.

For example, a study using a ‘last 6 months’ format for an indicator here proposed as ‘last 12 months’ might include a question with a ‘flexible format’ (see module DRID Example Questionnaire) that asks the respondent if that behaviour happened ‘ever’, ‘in the last 12 months’

or ‘in the last 6 months’ (or alternatively recording date of the last time), thereby providing three ‘yes/no’ variables for each recall period.

Although it is not possible with such a ‘flexible format’ question to record frequencies of that behaviour during the different recall periods (extra questions would be needed for that), at least at the population level data can be compared in terms of the percentage of IDUs reporting that behaviour in either the last 12 or the last 6 months.

Similarly, if the study uses ‘last 6 months’ for an indicator that is defined here as ‘last 4 weeks’, introducing a question asking if the respondent has engaged in that behaviour ‘ever’, ‘in the last 6 months’ or ‘in the last 4 weeks’ allows the percentage of IDUs admitting to this behaviour to be reported to the EMCDDA following the standard recall period format of ‘last 4 weeks’ and/or comparing results from using either recall period.

Box 8.

Recall periods are ‘last 4 weeks’ or ‘last 12 months’:

- last 4 weeks for frequent behaviours (e.g. needle sharing or injecting);
- last 12 months for less frequent behaviours (e.g. sexual variables or testing uptake).

Studies using a different recall period might consider including an extra ‘flexible’ question that addresses both recall periods in order to be able to compare their data with the data reported by the EMCDDA (see module DRID Example Questionnaire).

4. Detailed listing of the indicators by thematic section

4.1 Sharing needles/syringes

Rationale:

Needle/syringe sharing is a key risk behaviour for transmission of HIV and viral hepatitis among IDUs. Identifying changes in the population prevalence of needle/syringe sharing may provide early warning signs for potential increases in HIV risk, provide a means to evaluate the impact of interventions aimed at reducing needle/syringe sharing, and help in identifying sub-groups at higher risk of infection. In populations with high infection prevalence, in addition to the indicators proposed here, it can be important to consider monitoring the prevalence of distributive needle/syringe sharing ('passing on used needles/syringes to others') by those infected or those who know they are infected (note these indicators are not collected by the EMCDDA).

The Core indicator C1 does not distinguish between receptive and distributive needle sharing, as was the case in the 2006 version of ST9 part 3, and it has been decided not to change this. Although technically making this distinction seems better, as studies often do, it was thought that at the European level a combined indicator might be easier for countries to report on, in part because some (routine) data collection systems do not make this distinction. To allow for higher quality data collection the 'receptive' and 'distributive' versions have been added as Optional indicators. Countries that collect both the combined and (one of the) separate indicators can compare results and see if this makes a large difference, or which is more sensitive for monitoring trends. In the future, based on further data collection, a more informed decision can then be made on whether the Core indicator might be changed to, for example, receptive sharing (indicator O1); however, this is not foreseen.

Indicator C1 (CORE): % current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on)

Definition:

- Numerator: IDUs injecting with needles/syringes that have been used by others, or passing their used needles/syringes to others, even if cleaned, in the last 4 weeks.
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05), then for the numerator include those with answer 1 on question QF11 or QF23 (exclude IDUs who answered either 8 or 9 on *both* questions). For the denominator include all who injected in the last 4 weeks (QF05), excluding those who answered 8 or 9 on *both* questions QF11, QF23.

Indicator O1 (OPTIONAL): % current IDUs injecting with needles/syringes that had been used by others in the last 4 weeks

Definition:

- Numerator: IDUs injecting with needles/syringes that have been used by others, even if cleaned, in the last 4 weeks.
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05), then for the numerator include those with answer 1 on question QF11 (exclude IDUs with answer 8 or 9). For the denominator include all who injected in the last 4 weeks (QF05), excluding those with answer 8 or 9 on question QF11.

Indicator O2 (OPTIONAL): % current IDUs passing on used needles/syringes to others in the last 4 weeks

Definition:

- Numerator: IDUs passing on their used needles/syringes to others, even if cleaned, in the last 4 weeks.
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05), then for the numerator include those with answer 1 on question QF23 (exclude IDUs with answer 8 or 9). For the denominator include all who injected in the last 4 weeks (QF05), excluding those with answer 8 or 9 on question QF23.

Suggested questions to construct these indicators (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF11 Please think of the last time that you injected with previously used needles or syringes that were given, lent, rented or sold to you by someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before?
1 Within last 4 weeks
2 Not in last 4 weeks, but in last … months
3 Before last … months
8 Refused
9 Don't know/remember
[Flexible format: simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you were using in your questionnaire.]

QF23 Please think of the last time that you gave, lent, rented or sold a *needle or syringe* that you had already used to someone else, including your partner. Did this occur within the last 4 weeks, last 12 months or before?
1 Within last 4 weeks
2 Not in last 4 weeks, but in last … months
3 Before last … months
8 Refused
9 Don't know/remember
[Flexible format: simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you were using in your questionnaire.]

4.2 Sharing other paraphernalia

Rationale:
This is a key risk behaviour for the transmission of viral hepatitis among IDUs (Hagan et al., 2010) ([4]). Given the much higher infectivity of viral hepatitis than HIV, sharing paraphernalia is thought to easily transmit viral hepatitis but not HIV. Although the detailed definition of the injecting paraphernalia can depend on drug preparation patterns in a given country, research shows that spoon or cooker and filters are common instruments when preparing drugs for injection. Furthermore, the sharing of water that has already been used to clean syringes is a frequent behaviour. The prevalence of paraphernalia sharing can be many times higher than the prevalence of needle/syringe sharing, therefore including only indicators in section 4.1 (needle/syringe sharing) is likely to be insufficient to understand risk behaviour for viral hepatitis transmission.

For this indicator no distinction is made between receiving or passing on, as in practice paraphernalia are usually shared by IDUs when preparing the drug solution ('drug-mediated sharing') and none of the questionnaires reviewed make this distinction.

Indicator C2 (CORE): % current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving, or passing on)

Definition:
- Numerator: IDUs sharing any other used injecting materials than needles/syringes (using together, receiving or passing on), even if cleaned — e.g. water, cotton/filter, cooker, spoon, acid/lemon juice, etc.).
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05), then for the numerator include those with answer 1 on question QF17 (exclude IDUs with answer 8 or 9). For the denominator include all who injected in the last 4 weeks (QF05), excluding those with answer 8 or 9 on question QF17.

Suggested questions to construct this indicator (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M

[4] For example, sharing of injecting paraphernalia is becoming a relatively more important source of infections in Spain given that the availability of sterile syringes has increased and the prevalence of borrowing syringes already used by others has diminished. In 2001–03, sharing of injecting paraphernalia (syringes/needles, water, cooker, spoon, acid/lemon juice, etc.) and taking diluted drugs from a syringe used by others was more prevalent than injection with syringes already used by others, and for a substantial percentage of injectors paraphernalia sharing was the only risk practice (Bravo et al., 2004). Sharing cookers is the strongest predictor of HCV seroconversion in the USA (Thorpe et al., 2002).

One Advisory Group member (Robert Heimer) wrote: 'My main concern is that an item be retained that ascertains the frequency of shared injections, i.e., the times when a drug is dissolved for the common use of two or more injectors. Paraphernalia sharing as an "epidemiological risk" (e.g. finding by Hagan et al. 2010 and Thorpe et al. 2002) misapprehend the biology that it is not the transmission of virus (HCV in both cases) that lingers in the paraphernalia, but rather that a contaminated syringe was used to dissolve and/or apportion drugs. This is where the contaminated blood resided; the paraphernalia only allowed its transmission to go unchecked. The distribution of clean cookers and cottons will not reduce the transmissions of blood-borne viruses (although it might reduce bacterial or fungal infections for pathogens that grow on the wet cottons).'

8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF17 Please think of the last time that you shared the *spoon/cooker, filter/cotton, acid/lemon juice or rinse water* with someone else, including your partner. Did this occur within the last 4 weeks, last 12 months or before? By sharing I mean receiving or passing on used materials or using them together with someone else.
1 Within last 4 weeks
2 Not in last 4 weeks, but in last … months
3 Before last … months
8 Refused
9 Don't know/remember
[Flexible format: simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you were using in your questionnaire.]

4.3 HIV testing

Rationale:

Information about HIV testing frequency is important for understanding access to diagnosis of infection and entry to care. In addition, having a test may have positive effects on risk behaviour, especially in the case of a positive result. Note that these indicators are not recording the test result, which is collected in ST9 part 2, but only the uptake/frequency of testing. Note also that most behavioural studies will include a larger set of behavioural questions regarding HIV testing that include the self-reported test result. These can be found in the module 'DRID Example Questionnaire'. As the EMCDDA collects actual biological prevalence in the sample through ST9 part 2 self-reported serostatus is not included in the behavioural indicators of this module, despite being important in most national and sub-national settings, for example to determine the undiagnosed fraction of prevalence.

For indicators C3 and O3, if possible exclude those who were already known to be positive, as they would normally not need another test ([5]). Whether or not known positives are excluded should be recorded in the reporting template of ST9 part 3.

The Core indicator C3 does not include the addition 'and who know their results' as in the UNGASS indicator (O3), which is promoted at a global level (UNAIDS, 2011). Many data providers in Europe would be unable to provide data 'where the test result is known', despite the fact that test results are always provided to the individual in most settings. This is because these are often administrative data from routine monitoring systems rather than self-reported data from behavioural surveys (as in many other parts of the world). However, countries are strongly recommended also to provide indicator O3, if possible, to enable international comparisons at a global level, and where O3 is not available C3 may be provided as a proxy.

In addition to indicators C3 and O3, both concerning recent (last 12 months) testing uptake, an Optional indicator for 'ever tested' is included (indicator O4), as this is usually asked first when interviewing a respondent. These data are thus likely to be easy to provide and are important for obtaining a general view of testing uptake in the IDU population, especially where testing uptake is low. Recent testing uptake (indicators C3 and O3) is better suited to follow changes in testing uptake over time.

[5] Ideally only those known to be positive before the reference period (12 months) should be excluded; however, this is probably too complicated and excluding all positives should not result in important bias in testing uptake except in extreme (large outbreak) situations, in which case preferably only exclude those known to be positive before the reference period.

Indicator C3 (CORE): % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months

Definition:

- Numerator: Ever-IDUs tested for HIV infection in the last 12 months, excluding those with known positive serostatus.
- Denominator: All ever-IDUs excluding those with known positive status.

Example Questionnaire instructions: For the denominator select all the ever-IDUs in the study, i.e. those with answer 1 on question QB01, excluding those that had an earlier positive test (preferably use administrative data, alternatively use self-report: answer 1 in QJ03). Then for the numerator, in addition, exclude those who were not tested in the last 12 months or where this is unknown (administrative data, or QJ02). If the positive cases cannot be excluded please indicate this in the reporting template.

Indicator O3 (OPTIONAL): % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months and who know their results (UNGASS indicator ([6]))

Definition:

- Numerator: Ever-IDUs tested for HIV infection in the last 12 months, who know their test result, excluding those with known positive serostatus.
- Denominator: All ever-IDUs excluding those with known positive serostatus.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the study i.e. those with answer 1 on question QB01, excluding those that had an earlier positive test (preferably use administrative data, alternatively use self-report: answer 1 in QJ03). Then for the numerator, in addition, exclude those who were not tested in the last 12 months or where this is unknown (administrative data, or QJ02) as well as those who were tested in the last 12 months but do not know that test result (answers 3 and 9 in QJ03). If the positive cases cannot be excluded please indicate this in the reporting template.

Indicator O4 (OPTIONAL): % ever-IDUs who have ever been tested for HIV

Definition:

- Numerator: Ever-IDUs who have ever been tested for HIV infection.
- Denominator: All ever-IDUs.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the study, i.e. those with answer 1 on question QB01. Then for the numerator, from that group, exclude those who were never tested or where this is unknown (answers 8 or 9 on QJ01).

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

[6] The UNGASS indicator does not exclude known positives (UNAIDS, 2009, p. 40) and focuses on recent (last month) injectors. Here we propose to maintain consistency with indicator C3 and exclude known positives in both indicators. In countries with low prevalence the difference may be negligible; in countries with high prevalence the exclusion of known positives may make results more meaningful. It was decided to also cover ex-IDUs as they may have important unmet needs for care and treatment, especially where IDUs are not frequently tested, which is likely to be the case in many countries in Europe.

QJ01 Have you ever had an HIV test?
0 No
1 Yes
8 Refused
9 Don't know/remember

QJ02 When was the last time you had an HIV test?
Month /__/__/
Year /__/__/__/__/
88 Refused M
8888 Refused Y
99 Don't know/remember M
9999 Don't know/remember Y

QJ03 What was the result of your last HIV test?
0 Negative
1 Positive
2 Indeterminate
3 Waiting for the results
8 Refused
9 Don't know/remember

4.4 HCV testing

Rationale:

Information about HCV testing frequency is important for understanding access to diagnosis of infection and potential entry to care. In addition, being tested may have positive effects on risk behaviour, especially in the case of a positive result. Note that these indicators are not recording the test result, which is collected in ST9 part 2, but only the uptake/frequency of testing. Some experts questioned the validity of self-reported data on viral hepatitis testing uptake, as knowledge of serostatus for HCV is often low (Hagan et al., 2006; Schlicting et al., 2003). Therefore, if possible, it is recommended that administrative (confirmed) data on test uptake are used. These indicators cover only initial diagnostic screening tests (antibody or RNA).

For indicator O5, if possible, those who were already known to be chronically infected (or antibody positive in the case of self-report) should be excluded, as they are tested for other reasons than diagnosis (see footnote 5). Whether or not known chronic (or antibody positive) cases were excluded should be recorded in the reporting template of ST9 part 3, specifying what type of data was used (administrative records or self-report).

As there is no UNGASS indicator (as is the case for HIV) that specifies testing uptake 'with known test result', and given the difficulty in obtaining this information from administrative data, that version has been omitted here.

In addition to the Core indicator of recent (last 12 months) testing uptake (indicator C4), an Optional indicator of 'ever tested' was added (indicator O5), as this is usually asked first when interviewing a respondent. These data are thus likely to be easy to provide and are important for having a general view of testing uptake in the IDU population, especially where testing uptake is low, which is often the case for HCV, although recent testing uptake (indicator C4) is better suited to follow changes in testing uptake over time.

Indicator C4 (CORE): % ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months

Definition:

- Numerator: Ever-IDUs tested for HCV in the last 12 months, excluding those with known chronic infection or self-reported antibody positive.
- Denominator: All ever-IDUs, excluding those with known chronic infection or self-reported antibody positive.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the study, i.e. those with answer 1 on question QB01, excluding those that were known to be chronically infected (from administrative data) or who self-report being antibody positive (QJ08). Then for the numerator, in addition, exclude those who were not tested in the last 12 months or where this is unknown (administrative data, or QJ07). If the cases with a known chronic infection or who self-reported positive cannot be excluded, please indicate this in the reporting template.

Indicator O5 (OPTIONAL): % ever-IDUs who have ever been tested for HCV

Definition:

- Numerator: Ever-IDUs who have ever been tested for HCV.
- Denominator: All ever-IDUs.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the study, i.e. those with answer 1 on question QB01. Then for the numerator, from that group, exclude those who were never tested or where this is unknown (answers 8 or 9 on QJ06).

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QJ06 Have you ever had an HCV test?
0 No
1 Yes
8 Refused
9 Don't know/remember

QJ07 When was the last time you had an HCV test?
Month /__/__/
Year /__/__/__/__/
88 Refused M
8888 Refused Y
99 Don't know/remember M
9999 Don't know/remember Y

QJ08 What was the result of your last HCV test?
0 Negative
1 Positive
2 Indeterminate
3 Waiting for the results
8 Refused
9 Don't know/remember

4.5 Needle/syringe at last injection

Rationale:

This indicator is a proxy for safer injecting behaviour and the availability and use of sterile needles/syringes. Although doubts were expressed in the European expert group regarding the robustness of this indicator — it is thought to underestimate risk ([7]) — , and some experts preferred making it Optional, it was maintained as Additional due to being an UNGASS indicator and therefore it has importance for international comparisons.

Indicator A1 (ADDITIONAL): % current IDUs who report the use of a sterile needle/syringe the last time they injected (UNGASS indicator ([8]))

Definition:

- Numerator: IDUs who have injected in the last 4 weeks and who report the use of a sterile needle/syringe the last time they injected.
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05), then for the numerator include those with answer 1 on question QF08 (exclude IDUs with answers 0, 8 or 9). For the denominator include those with answer 0 or 1 on question QF08 (exclude those with answers 8 or 9).

Suggested questions to construct this indicator (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF08 The last time that you injected, did you use a sterile needle/syringe? I mean a needle/syringe that had never been used before by you or anyone else.
0 No
1 Yes
8 Refused
9 Don't know/remember

[7] In populations where needle-sharing frequency is low, this indicator may not pick up residual risk behaviour and thus may underestimate risk in the population. (The indicator represents the percentage of safe injections in a sample of injections taken from the universe of all injections in the population over a non-specified time period, stratified by individual IDU. IDUs who have a low proportion of unsafe injections are more likely to show up as 'safe', thus in a population of IDUs with low frequency of sharing almost all IDUs could be counted as 'safe' even if each of them shares regularly but only on a small proportion of injecting occasions. Conversely, in a population with high frequency of sharing almost all IDUs could be counted as 'unsafe' if they share on a large proportion of injecting occasions even if each of them regularly uses a sterile needle/syringe as well. However, the latter type of bias is less problematic for prevention purposes as one is interested in detecting risk, not lack of risk.)

[8] Although the name/label of the indicator seems different, in reality the UNGASS indicator measures the use of a sterile 'needle/syringe' and not 'equipment' (UNAIDS, 2009, p. 65).

4.6 Repeated use of needles/syringes

Rationale:

Personal reuse of needles/syringes can lead to bacterial infections or to inadvertent or undisclosed use by others resulting in blood-borne virus transmission. These indicators also provide an indirect measure of individual level syringe coverage (Iversen et al., 2011). In theory, the total number of sterile needles/syringes available for an IDU for personal use, multiplied by the average times each needle/syringe is used by him/her, plus the number of non-sterile needles/syringes he/she received from others in the same time period (receptive needle sharing ([9])), should equal the total number of injections of the IDU, thus these different indicators should broadly corroborate one another.

Indicator O6 has been made Optional due to the need to limit the number of Additional indicators. However, it is important in settings where syringe coverage is of interest. The population mean (O7.1) and median (O7.2) are proposed as an Optional indicator in order to have a better view of the population distribution of syringe reuse. These should imply no extra data collection if indicator O6 is already implemented.

It is very important to be clear whether these indicators count the number of times the last needle/syringe was 'used' vs. 'reused' (times used minus one). Indicator O6 is the proportion of users who have used the last needle/syringe more than once ('reused'). Indicator O7 (mean O7.1; median O7.2) is, however, calculated from the total number of times the last needle/syringe was 'used' by the same person, i.e. it includes the first time the needle/syringe was used, thus ideally the population estimates for O7.1 and O7.2 should be near 1, and they cannot be below 1.

Indicator O6 (OPTIONAL): % current IDUs who report using their last needle or syringe more than once

Definition:

- Numerator: Current IDUs who report using their last needle or syringe more than once before disposing of it and before anyone else used it.
- Denominator: IDUs who have injected in the last 4 weeks (current IDUs).

Example Questionnaire instructions: For the denominator include those with at least one injection in the last 4 weeks (QF05). Then from these, for the numerator, select those IDUs who report that they used their last needle or syringe more than once (the answer on QF09 is two or more), excluding those with responses 88 or 99 (note these must have answer '0' on QF08).

Indicator O7.1 (OPTIONAL): Mean number of times current IDUs report using their last needle or syringe

Definition:

- Mean number of times IDUs report using their last needle or syringe before disposing of it and before anyone else used it, among IDUs who have injected in the last 4 weeks (current IDUs).

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the population mean of the number of times the IDU used their last needle or syringe (QF09), excluding those with answers 88 or 99 on question QF08.

[9] Possibly the formula should include a multiplication factor as well for needles/syringes obtained from others that are used more than once (reused) but such data are usually not available.

Indicator O7.2 (OPTIONAL): Median number of times current IDUs report using their last needle or syringe

Definition:

- Median number of times IDUs report using their last needle or syringe before disposing of it and before anyone else used it, among IDUs who have injected in the last 4 weeks (current IDUs).

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the population median of the number of times the IDU used their last needle or syringe (QF09), excluding those with answers 88 or 99 on question QF08.

Suggested questions to construct these indicators (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF08 The last time that you injected, did you use a sterile needle and syringe? I mean a needle/syringe that had never been used before by you or anyone else.
0 No
1 Yes
8 Refused
9 Don't know/remember

QF09 For the last needle/syringe that you used and that had not been used by anyone else, how many times did you inject with it before disposing of it?
Number of times /__/__/
88 Refused
99 Don't know/remember

4.7 Injecting frequency

Rationale:

This is a key risk behaviour for HIV and viral hepatitis transmission in IDUs. It may be more predictive of infection risk than self-reported needle or syringe or paraphernalia sharing. It provides a measure of the level of addiction/drug problems. It is also used to estimate the need for clean injecting equipment among IDUs. Daily vs. less than daily injecting is usually strongly associated with other risk variables. The mean number of injections among current IDUs (O8.1) is important for calculating the coverage of needle and syringe provision, while the median (O8.2) helps in interpreting the mean. These should imply no extra data collection if indicator A2 is already implemented.

Indicator A2 (ADDITIONAL): % current IDUs injecting once per day or more, in the last 4 weeks

Definition:

- Numerator: IDUs who report injecting daily or more than daily, in the last 4 weeks.

- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the number of injections in the last 4 weeks, i.e. multiply the number of days injected (QF06) with the number of injections on an average day (QF07), excluding IDUs who responded categories 88 or 99 on one or both questions. For the numerator include IDUs who have injected 24 times or more in the last 4 weeks (24 is taken instead of a higher number to account for inaccuracy in recalling). For the denominator include those who have injected in the last 4 weeks (QF05).

Indicator O8.1 (OPTIONAL): Mean number of injections in the last 4 weeks, among current IDUs

Definition:

- Population mean of the number of injections in the last 4 weeks, among IDUs who have injected in the last 4 weeks (current IDUs).

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the number of injections in the last 4 weeks, i.e. multiply the number of days injected (QF06) with the number of injections on an average day (QF07), excluding IDUs who responded categories 88 or 99 on one or both questions. Use the average number of injections across the remaining sample for this indicator.

Indicator O8.2 (OPTIONAL): Median number of injections in the last 4 weeks, among current IDUs

Definition:

- Population median of the number of injections in the last 4 weeks, among IDUs who have injected in the last 4 weeks (current IDUs).

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the number of injections in the last 4 weeks, i.e. multiply the number of days injected (QF06) with the number of injections on an average day (QF07), excluding IDUs who responded categories 88 or 99 on one or both questions. Use the median number of injections across the remaining sample for this indicator.

Suggested questions to construct these indicators (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF06 During the last 4 weeks how many days did you inject?
Number of days /__/__/
88 Refused
99 Don't know/remember

QF07 When you injected in the last 4 weeks how many times did you inject on an average day?
Number of injections /__/__/__/
888 Refused
999 Don't know/remember

4.8 Number of sharing partners

Rationale:

This is an important determinant of the potential for spread in an IDU population. It provides a measure of the interconnectedness of IDUs in risky injecting networks. This variable refers only to borrowing needles/syringes, not the sharing of other paraphernalia.

These indicators have remained Optional in order to limit the number of Additional indicators. However, they are important in settings where more detailed information about the potential for the spread of infection is necessary, such as in the case of HIV outbreaks or when HCV prevalence is rising.

Apart from indicator O9, the population mean (O10.1) and median (O10.2) are proposed as further Optional indicators, to better understand the central tendency of the population distribution in number of sharing partners. These should imply no extra data collection if indicator O9 is already implemented.

Indicator O9 (OPTIONAL): % current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks

Definition:

- Numerator: Current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks.
- Denominator: IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then for the denominator, exclude those cases answering 88 or 99 on question QF15. For the numerator select only the cases answering 3 or more in question QF15.

Indicator O10.1 (OPTIONAL): Mean number of sharing partners among current IDUs, in the last 4 weeks (including those with zero partners)

Definition:

- Population mean among current IDUs (all who injected in the last 4 weeks) of the number of people from whom they received used needles/syringes in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the population mean of the number of people from whom they received used needles/syringes in the last 4 weeks (QF15). Use a zero value for those who have not shared needles/syringes in the last 4 weeks (QF11).

Indicator O10.2 (OPTIONAL): Median number of sharing partners among current IDUs, in the last 4 weeks (including those with zero partners)

Definition:

- Population median among current IDUs (all who injected in the last 4 weeks) of the number of people from whom they received used needles/syringes in the last 4 weeks.

Example Questionnaire instructions: Select IDUs who injected in the last 4 weeks (QF05). Then calculate the population median of the number of people from whom they received used needles/syringes in the last 4 weeks (QF15). Use a zero value for those who have not shared needles/syringes in the last 4 weeks (QF11).

Suggested questions to construct these indicators (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF11 Please think of the last time that you injected with previously used needles or syringes that were given, lent, rented or sold to you by someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? ([10])
1 Within last 4 weeks
2 Not in last 4 weeks but in last …… months
3 Before last …… months
8 Refused
9 Don't know/remember
[Flexible format: simply introduce write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you were using in your questionnaire.]

QF15 From how many different people in total (including your partner) did you get used needles or syringes in the last 4 weeks?
Number of persons /__/__/
88 Refused
99 Don't know/remember

4.9 Sex work

Rationale:

This is a key risk behaviour for sexual transmission among and from IDUs. Sex workers are among those IDUs with the highest numbers of sexual partners, and thus form a core sexual risk group. Sex workers may also transmit infections to non-IDUs and people who are not drug users.

To calculate the proportion of sex workers among female IDUs, an Optional gender-specific indicator is included for female IDUs. However, due to small proportions of male sex workers this question is not asked for males. The male-to-male sex indicator in the next section may be used instead (see next section, indicator O12).

[10] The 'flexible format' allows researchers to adapt their questionnaire to obtain the EMCDDA indicators. Simply write in the dotted space ('……') the recall period that are you using in your own survey for this question. Note that you can insert any recall period that you are using in your questionnaire: 6 months, 12 months or any other. For more details see 'Notes for researches' in the DRID toolkit module Example Questionnaire.

Indicator A3 (ADDITIONAL): % ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months

Definition:

- Numerator: Ever-IDUs who report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 12 months.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator take all ever-IDUs in the study (answer 1 on QB01). Then for the numerator, from all ever-IDUs, select those who report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 12 months (answer 1 on QH15).

Indicator O11 (OPTIONAL): % female ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months

Definition:

- Numerator: Female ever-IDUs who report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 12 months.
- Denominator: All female ever-IDUs in the study.

Example Questionnaire instructions: For the denominator take all female ever-IDUs in the study (answer 1 on QB01 and answer 2 on QC02). Then for the numerator, from all female ever-IDUs, select those who report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 12 months (answer 1 on QH15).

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC02 Sex/gender
1 Male
2 Female
3 Transsexual/transgender
8 Refused

QH15 During the last 12 months have you had vaginal or anal sexual intercourse with people who paid you with money, drugs or other benefits for the sex?
0 No
1 Yes
8 Refused
9 Don't know/remember

4.10 Male-to-male sex

Rationale:

This is a key risk behaviour for sexual transmission between men who have sex with men (MSM) and IDUs, with the potential for transmission from IDUs to the general population.

Indicator O12 (OPTIONAL): % male ever-IDUs who report anal sex with a male partner in the last 12 months

Definition:

- Numerator: Male ever-IDUs who report having had anal sex with a male partner in the last 12 months.
- Denominator: all male ever-IDUs in the study.

Example Questionnaire instructions: For the denominator take all male ever-IDUs in the study (answer 1 on QB01 and answer 1 on QC02). Then for the numerator, from all male ever-IDUs, select those who report having had anal sex with a male partner in the last 12 months (answer 1 on QH02).

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC02 Sex/gender
1 Male
2 Female
3 Transsexual/transgender
8 Refused

QH02 Have you had anal sex with a male in the last 12 months?
0 No
1 Yes
8 Refused
9 Don't know/remember

4.11 Condom use

Rationale:

These indicators provide a proxy for levels of safer sex in the IDU population. Although doubts were expressed in the European expert group regarding the representativeness of indicator A4 for consistent condom use — it is thought to underestimate risk ([11]) — and some experts proposed making it 'Optional', it was maintained as 'Additional' due to being an UNGASS indicator and therefore it has importance for international comparisons.

Condom use can vary considerably, depending on partner type. Therefore, in addition to the Additional indicator (A4) three further (Optional) indicators are provided for use in settings where having better data regarding condom use is important — one for steady partners (O13), one for casual partners (O14) and one for sex with clients (O15). It is suggested that sex for which the IDU has paid (sex with a sex worker) is categorised under 'casual partners'.

Indicator A4 (ADDITIONAL): % ever-IDUs who report the use of a condom at last sexual intercourse (UNGASS indicator).

Definition:

- Numerator: Ever-IDUs who report that a condom was used the last time they had sexual (vaginal or anal) intercourse.

[11] See footnote 7.

- Denominator: Ever-IDUs who report having injected drugs and having had sexual intercourse in the last 12 months. ([12])

Example Questionnaire instructions: For the denominator take all ever-IDUs who report having had sexual intercourse in the last 12 months (answer 1 on QB01 and answer 1 on QH01). Then for the numerator, from that group, select those who report using a condom at last sexual intercourse (answer 1 on QH21).

Indicator O13 (OPTIONAL): % ever-IDUs who report the use of a condom at last sexual intercourse with a steady partner in the last 12 months

Definition:

- Numerator: Ever-IDUs who report the use of a condom at last sexual (vaginal or anal) intercourse with a steady partner in the last 12 months.
- Denominator: Ever-IDUs who report sexual intercourse with a steady partner in the last 12 months.

Example Questionnaire instructions: For the denominator take all ever-IDUs (answer 1 on QB01) who report having had sexual intercourse with a steady partner in the last 12 months (answer 1 on QH04). Then for the numerator, from that group, select those who report using a condom at last sexual intercourse with a steady partner (answer 1 on QH07).

Indicator O14 (OPTIONAL): % ever-IDUs who report the use of a condom at last sexual intercourse with a casual partner in the last 12 months

Definition:

- Numerator: Ever-IDUs who report the use of a condom at last sexual (vaginal or anal) intercourse with a casual partner in the last 12 months.
- Denominator: Ever-IDUs who report sexual intercourse with a casual partner in the last 12 months.

Example Questionnaire instructions: For the denominator take all ever-IDUs (answer 1 on QB01) who report having had sexual intercourse with a casual partner in the last 12 months (answer 1 on QH10). Then for the numerator, from that group, select those who report using a condom at last sexual intercourse with a casual partner (answer 1 on QH13).

Indicator O15 (OPTIONAL): % ever-IDUs who report the use of a condom at last sexual intercourse with a sex work client in the last 12 months

Definition:

- Numerator: Ever-IDUs who report the use of a condom at last sexual (vaginal or anal) intercourse with a sex work client in the last 12 months.
- Denominator: Ever-IDUs who report sexual intercourse with a sex work client in the last 12 months.

Example Questionnaire instructions: For the denominator take all ever-IDUs (answer 1 on QB01) who report having had sexual intercourse with a sex work client in the last 12 months (answer 1 on QH15). Then for the numerator, from that group, select those who report using a condom at last sexual intercourse with a sex work client (answer 1 on QH18).

[12] The UNGASS indicator uses a 'last month' recall period (UNAIDS, 2009, p63). Here, for consistency with the other sexual risk indicators, we include ever-IDUs and use a 12 month recall period.

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QH01 Have you had sexual intercourse (vaginal or anal) in the last 12 months?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH04 Have you had vaginal or anal intercourse with a steady or regular sexual partner in the last 12 months?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH07 Did you use a condom the last time you had vaginal or anal intercourse with a steady/regular partner?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH10 Have you had vaginal or anal intercourse with a casual sexual partner in the last 12 months?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH13 Did you use a condom the last time you had vaginal or anal intercourse with a casual partner?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH15 During the last 12 months have you had vaginal or anal sexual intercourse with people who paid you with money, drugs or other benefits for the sex?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH18 Did you use a condom the last time you had vaginal or anal intercourse with people who paid you with money, drugs or other benefits for the sex?
0 No
1 Yes
8 Refused
9 Don't know/remember

QH21 Please think about the very last time that you had vaginal or anal intercourse. Did you or your partner use a condom on that occasion?
0 No
1 Yes

8 Refused
9 Don't know/remember

4.12 Number of sexual partners

Rationale:

This is a key sexual risk behaviour as the sexual spread of HIV is associated with having unprotected sex with a high number of sexual partners. For indicator A5 the cut-off is put at 'more than one partner in the last 12 months' to be consistent with UNGASS formats of this indicator for other population groups.

Apart from the main indicator A5, the population mean (O16.1) and median (indicator O16.2) are proposed as further Optional indicators, to better understand the central tendency of the population distribution in the number of sexual partners. These should imply no extra data collection if indicator A5 is already implemented.

Indicator A5 (ADDITIONAL): % ever-IDUs who report sexual intercourse with more than one partner in the last 12 months ([13])

Definition:

- Numerator: Ever-IDUs who report sexual intercourse (vaginal or anal) with more than one partner in the last 12 months. This is the total number of partners, including steady, casual, client and paid partners.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator take all ever-IDUs in the study (answer 1 on QB01). Then for the numerator, from all ever-IDUs, select those reporting sexual intercourse with more than one partner in the last 12 months (calculate the total number of partners by adding up the responses on QH05, QH11, QH16 and QH20).

Indicator O16.1 (OPTIONAL): Mean number of partners with whom ever-IDUs have had sexual intercourse in the last 12 months

Definition:

- Population mean of the total number of partners with whom ever-IDUs report having had sexual intercourse (vaginal or anal) in the last 12 months.

Example Questionnaire instructions: Select only ever-IDUs in the study (answer 1 on QB01). Then for this group calculate the population mean of the total number of partners of each IDU (calculate the total number of partners by adding up the responses on QH05, QH11, QH16 and QH20).

Indicator O16.2 (OPTIONAL): Median number of partners with whom ever-IDUs have had sexual intercourse in the last 12 months

Definition:

- Population median of the total number of partners with whom ever-IDUs report having had sexual intercourse (vaginal or anal) in the last 12 months.

[13] Adapted from the UNGASS indicator for the general population.

Example Questionnaire instructions: Select only ever-IDUs in the study (answer 1 on QB01). Then for this group calculate the population median of the total number of partners of each IDU (calculate the total number of partners by adding up the responses on QH05, QH11, QH16 and QH20).

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QH05 If you had more than one *steady or regular* sexual partner in the last 12 months, how many of them did you have?
Number of regular partners /__/__/
88 Refused
99 Don't know/remember

QH11 With how many casual partners have you had vaginal or anal intercourse in the last 12 months?
Number of casual sexual partners /__/__/__/
888 Refused
999 Don't know/remember

QH16 With how many partners have you had vaginal or anal intercourse in the last 12 months for which *you were paid* with money, drugs or other benefits?
Number of clients as sexual partners /__/__/__/__/
8888 Refused
9999 Don't know/remember

QH20 With how many partners have you had vaginal or anal intercourse in the last 12 months for which *you paid* with money, drugs or other benefits?
Number of clients as sexual partners /__/__/__/
8888 Refused
999 Don't know/remember

4.13 Availability of needles/syringes

Rationale:

These indicators can provide important information on whether IDUs have sufficient sterile needles/syringes available ([14]), especially if interpreted in combination with the indicator on injecting frequency. For the Additional indicator (A6) a level of 15 needles/syringes per 4 weeks is taken as cut-off, consistent with recent WHO guidance that uses a level of 200 needles/syringes per year as 'high' coverage. Note this does not imply that this level is necessarily sufficient as the need for needles and syringes by IDUs may strongly depend on the types of drugs they inject and many IDUs may inject several times per day.

In addition, the mean and median number of needles/syringes are included as an 'Optional' indicator as they are usually easy to provide once the data are available and they give important additional information about the central tendency of the distribution. Moreover, the mean number of needles/syringes (O17.1) is important in order to calculate the total number of needles/syringes available in the population, while the median (O17.2) helps with interpretation of the mean. These should imply no extra data collection if indicator A6 is already implemented.

[14] See e.g. Hope et al., 2011a for the use of survey methodology and finding that HCV incidence was highest among IDUs with poor needle/syringe coverage.

These indicators should be used with caution with regard to the probability of having been involved in needle and syringe programmes (NSPs) in different recruitment settings. Some settings may be considered reasonably independent of NSP provision services, e.g. in bio-behavioural surveys where recruitment is not done in facilities that provide NSP. Other settings can result in upward bias with respect to NSP, e.g. when recruitment is in some way linked to settings with NSP provision. These indicators can be used to evaluate syringe availability in the population in contact with different services, but interpretation should take account of the likelihood of bias as an estimate for the full IDU population.

Indicator A6 (ADDITIONAL): % current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks

Definition:

- Numerator: Current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks.
- Denominator: All current IDUs in the study.

Example Questionnaire instructions: For the denominator select only current IDUs i.e. who have injected in the last 4 weeks (QF05) and who have a valid answer on item QG04. Then for the numerator, from these, select IDUs reporting 15 needles/syringes or more on question QG04. Note that question QG04 refers to QG02.

Indicator O17.1 (OPTIONAL): Mean number of sterile needles/syringes available for personal use in the last 4 weeks among current IDUs

Definition:

- Mean number of sterile needles/syringes available for personal use in the last 4 weeks among IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select only current IDUs, i.e. who have injected in the last 4 weeks (QF05), and who have a valid answer on item QG04. Then for this group calculate the population mean of all answers on item QG04.

Indicator O17.2 (OPTIONAL): Median number of sterile needles/syringes available for personal use in the last 4 weeks among current IDUs

Definition:

- Median number of sterile needles/syringes available for personal use in the last 4 weeks among IDUs who have injected in the last 4 weeks.

Example Questionnaire instructions: Select only current IDUs, i.e. who have injected in the last 4 weeks (QF05), and who have a valid answer on item QG04. Then for this group calculate the population median of all answers on item QG04.

Suggested questions to construct these indicators (see Example Questionnaire):

QF05 When did you last inject a drug?
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y

99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QG02 In the last 4 weeks, from which of the following places did you get your sterile needles and syringes?

		No	Yes	Refused	Don't know/remember
A	Bought from a pharmacy	0	1	8	9
B	Bought from other shop	0	1	8	9
C	Drug agency needle exchange	0	1	8	9
D	Pharmacy needle exchange	0	1	8	9
E	Mobile exchange	0	1	8	9
F	Outreach worker	0	1	8	9
G	Friends	0	1	8	9
H	Other IDU	0	1	8	9
I	Stolen from pharmacy, shop or hospital	0	1	8	9
J	Drug dealer	0	1	8	9
K	Other (specify)	0	1	8	9

QG04 In the last 4 weeks how many new, sterile needles and syringes did you have available in total for your personal use? Please include those from any of the above sources, those received from somebody else and any you already had before.

Number of needles/syringes /__/__/__/
888 Refused
999 Don't know/remember

4.14 Opioid substitution therapy

Rationale:

This indicator provides important information regarding coverage of opioid using IDUs by opioid substitution treatment, one of the most effective prevention measures for HIV infection for this group of IDUs. However, it should be applied only in settings that can be considered reasonably independent of opioid substitution treatment (OST) provision service, e.g. in bio-behavioural surveys where recruitment is not done in drug treatment facilities that provide OST. It should not be used when the study population is biased with respect to OST, e.g. in drug-free settings or when recruitment is in some way linked to settings with OST provision.

The time frame of 4 weeks was selected because the intention was to monitor recent attendance or current attendance. Treatment discontinuation is not infrequent and it is related with some problems as relapses, overdose or re-incarceration.

Indicator A7 (ADDITIONAL): % opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks

Definition:

- Numerator: Ever-IDUs who were in opioid substitution therapy in the last 4 weeks, i.e. using prescribed methadone, buprenorphine, heroin, etc.
- Denominator: Ever-IDUs who report using any opioids in the last 4 weeks (injected or not injected, prescribed or not prescribed).

Example Questionnaire instructions: For the denominator select all ever-IDUs who have used opioids in the last 4 weeks, i.e. those with answer 1 on item QB01 and answer 1 on QE02, QE06, QE10, QE22, QE26 or QE30. Then for the numerator, from this group, select those with answer 1 on item QD07.

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QD07 Regarding opioid substitution treatment, have you been in this type of treatment either in the last 4 weeks, last 12 months or before?
1 Within last 4 weeks
2 Not in last 4 weeks, but in last … months
3 Before last … months
8 Refused
9 Don't know/remember
[Flexible format: simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you were using in your questionnaire.]

QE02 Have you used powder cocaine and heroin mixed together in the last 4 weeks?
0 No
1 Yes
8 Refused
9 Don´t know/remember

QE06 Have you used crack cocaine and heroin mixed together in the last 4 weeks?
0 No
1 Yes
8 Refused
9 Don´t know/remember

QE10 Have you used heroin alone, without mixing it together with any other drug, in the last 4 weeks?
0 No
1 Yes
8 Refused
9 Don´t know/remember

QE22 Have you used methadone in the last 4 weeks? Please include also when illegally obtained.
0 No
1 Yes
8 Refused
9 Don´t know/remember

QE26 Have you used buprenorphine in the last 4 weeks?
0 No
1 Yes
8 Refused
9 Don´t know/remember

QE30 Have you used any other opioid, different from heroin or methadone or buprenorphine, in the last 4 weeks?
0 No
1 Yes
8 Refused
9 Don´t know/remember

4.15 Age

Rationale:

Age is a central demographic indicator in any epidemiological analysis. Here the main 'Additional' indicator (A8) is the percentage of ever-IDUs under age 25.

In addition, the mean and median age among all ever-IDUs (O18.1 and O18.2) and in the sub-group of new IDUs (O19.1 and O19.2) are suggested as 'Optional' indicators, as they are usually easy to provide and do not imply extra data collection. New IDUs are a key group for following the incidence both of infections and of injecting. Specifying their age is important information for prevention policies, especially as it is important to know to what extent new injectors are recruited from the same age group as existing IDUs or from much younger people.

Indicator A8 (ADDITIONAL): % ever-IDUs under age 25

Definition:

- Numerator: Ever-IDUs under age 25.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator select all ever-IDUs (QB01). Then calculate the age at interview from date of birth (QC01) and date of interview (QA01). In the numerator include only those under age 25.

Indicator O18.1 (OPTIONAL): Mean age of ever-IDUs

Definition:

- Mean age in years of all ever-IDUs.

Example Questionnaire instructions: Select all ever-IDUs (QB01). Then calculate the age at interview from date of birth (QC01) and date of interview (QA01) and take the population mean.

Indicator O18.2 (OPTIONAL): Median age of ever-IDUs

Definition:

- Median age in years of all ever-IDUs.

Example Questionnaire instructions: Select all ever-IDUs (QB01). Then calculate the age at interview from date of birth (QC01) and date of interview (QA01) and take the population median.

Indicator O19.1 (OPTIONAL): Mean age of new IDUs among all ever-IDUs

Definition:

- Mean age in years of ever-IDUs who injected for the first time less than 2 years ago (new IDUs).

Example Questionnaire instructions: Select all ever-IDUs (QB01). Then calculate the age at interview from date of birth (QC01) and date of interview (QA01). Then calculate years since first injection from age at interview and age at first injection (QF01). Select all IDUs who have less than 2 years since first injection and take the population mean of age for this group.

Indicator O19.2 (OPTIONAL): Median age of new IDUs among all ever-IDUs

Definition:

- Median age in years of ever-IDUs who injected for the first time less than 2 years ago (new IDUs).

Example Questionnaire instructions: Select all ever-IDUs (QB01). Then calculate the age at interview from date of birth (QC01) and date of interview (QA01). Then calculate years since first injection from age at interview and age at first injection (QF01). Select all IDUs who have less than 2 years since first injection and take the population median of age for this group.

Suggested questions to construct these indicators (see Example Questionnaire):

QA01 Date of the interview (DD/MM/YY)
Day /__/__/
Month /__/__/
Year /__/__/__/__/

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC01 What is your date of birth? (DD/MM/YY)
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF01 How old were you when you first injected a drug? This includes either self-injection or injection by another person.
Years old /__/__/
88 Refused
99 Don't know/remember

4.16 Sex/gender

Rationale:

Gender is a key demographic indicator in any epidemiological analysis. There are biological differences between the sexes in susceptibility to sexually transmitted HIV infection. There are also social differences in susceptibility due to different social factors that are associated with condom use (including power differences in negotiating condom use that are linked to the biological differences), number of partners, needle sharing and other risk factors.

Indicator A9 (ADDITIONAL): % females among ever-IDUs.

Definition:

- Numerator: Female ever-IDUs.
- Denominator: All ever-IDUs in the sample.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take all females among those ever-IDUs (answer 2 on item QC02).

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC02 Sex/gender
1 Male
2 Female
3 Transsexual/transgender
8 Refused

4.17 Years injecting

Rationale:

The number of years injecting provides a proxy for total exposure time to infection risks and is often the variable most strongly associated with prevalent infections. In addition, differences in prevalence between the categories of this variable can reflect differences in incidence over time.

The main 'Additional' indicator proposed here (A10) is the proportion of 'new IDUs' (injecting less than 2 years) as this is an indicator of incidence of injecting drug use. Optional indicators include the percentage of those with less than 5 years since their first injection (indicator O20), being an indicator with a broader definition of 'new IDUs' that may work better in populations with low incidence of IDU.

In addition, mean and median number of years since first injection among all ever-IDUs (O21.1 and O21.2) are proposed as an Optional indicator as they are usually easy to provide and they give important additional information on the distribution of the number of years injected among ever-IDUs. These should imply no extra data collection if indicator A10 is already implemented.

Indicator A10 (ADDITIONAL): % ever-IDUs with less than 2 years since their first injection

Definition:
- Numerator: Ever-IDUs with less than 2 years since their first injection.
- Denominator: All ever-IDUs in the sample.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (QB01). Then calculate their age at interview from date of birth (item QC01) and date of interview (QA01). Then calculate the time since the first injection from age at interview and age of first injection (QF01), and select those with less than 2 years for the numerator.

Indicator O20 (OPTIONAL): % ever-IDUs with less than 5 years since their first injection

Definition:
- Numerator: Ever-IDUs with less than 5 years since their first injection.
- Denominator: All ever-IDUs in the sample.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (QB01). Then calculate their age at interview from date of birth (item QC01) and date of interview (QA01). Then calculate the time since the first injection from age at interview and age of first injection (QF01) and select those with less than 5 years for the numerator.

Indicator O21.1 (OPTIONAL): Mean number of years since first injection among ever-IDUs

Definition:

- Population mean of years since first injection among ever-IDUs.

Example Questionnaire instructions: Select all ever-IDUs in the sample (QB01). Then calculate their age at interview from date of birth (item QC01) and date of interview (QA01). Then calculate the time since the first injection from age at interview and age at first injection (QF01) and take the population mean of the distribution.

Indicator O21.2 (OPTIONAL): Median number of years since first injection among ever-IDUs

Definition:

- Median value of years since first injection among ever-IDUs.

Example Questionnaire instructions: Select all ever-IDUs in the sample (QB01). Then calculate their age at interview from date of birth (item QC01) and date of interview (QA01). Then calculate the time since the first injection from age at interview and age at first injection (QF01) and take the population median of the distribution.

Suggested questions to construct these indicators (see Example Questionnaire):

QA01 Date of the interview (DD/MM/YY)
Day /__/__/
Month /__/__/
Year /__/__/__/__/

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC01 What is your date of birth? (DD/MM/YY)
Day /__/__/
Month /__/__/
Year /__/__/__/__/
88 Refused D
88 Refused M
8888 Refused Y
99 Don't know/remember D
99 Don't know/remember M
9999 Don't know/remember Y

QF01 How old were you when you first injected a drug? This includes either self-injection or injection by another person.
Years old /__/__/
88 Refused
99 Don't know/remember

4.18 Primary drug

Rationale:

The primary drug used is an important indicator of injecting risks among IDUs as different drugs imply different injecting patterns and risk behaviours. Higher risks have been found among IDUs who combine opioids (e.g. heroin) with stimulants (e.g. cocaine or amphetamines). However, lower risks can also be found in IDUs who exclusively inject stimulants (e.g. amphetamines), especially if they do not inject on a daily basis as many opioid users do. Changes from heroin injection to stimulant injection have been reported in the EU due to a heroin drought, and these have in some cases been associated with increased injecting risks. For this indicator the proportion of IDUs reporting an opioid (natural or synthetic) as their primary drug is used ([15]). For a full list of possible drugs see section E in the DRID Example Questionnaire module. For the list of drugs used in the treatment demand indicator (TDI), including the use of secondary drugs, see the TDI protocol (EMCDDA, 2012b).

Indicator A11 (ADDITIONAL): % ever-IDUs who report an opioid as their primary drug in the last 4 weeks

Definition:

- Numerator: Ever-IDUs who report that their primary drug in the last 4 weeks was an opioid. Primary drug is the drug that the user reports as causing most problems at entry into treatment. In non-treatment settings the 'problem drug' most frequently used can be used instead (problem drugs include opioids or stimulants — cocaine, amphetamines — but exclude cannabis and other 'lighter' drugs), see example questionnaire question QE43. Whether primary drug or most frequently used drug is reported for this indicator should be indicated in the specific field in the Fonte template.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take from this group all those who report that their primary drug in the last 4 weeks was an opioid (answer 1 on item QE43).

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QE43 Which one of the following two types of drugs have you used more frequently in the last 4 weeks? Please make a general assessment of all the drugs and mixtures that you have used in that period.
1 Heroin, methadone, buprenorphine, fentanyl, codeine or other opioids
2 Cocaine, crack, amphetamines, methamphetamines, mephedrone, other mephedrone-like drugs or any other type of stimulant
8 Refused
9 Don't know/remember

[15] The primary drug is defined as the drug that causes the client the most problems at the start of treatment. This is usually based on the request made by the clients and (or) on the diagnosis made by a therapist, commonly using international standard instruments (e.g. ICD-10; DSM-IV (5), ASI) or clinical assessment.

4.19 Prison

Rationale:

Having ever been in prison is often associated with a higher risk of HIV (and other) infections. In addition it informs about a history of serious legal problems that often coincide with marginalisation and lack of access to services. For consistency with ST9 part 2 here the proposed Additional indicator is 'having ever been in prison'. As a more specific Optional indicator that is often used in studies, 'having ever injected in prison' is proposed (indicator O22). While 'having ever shared a needle/syringe in prison' could also be asked this was deemed to increase the number of indicators too much and was unlikely to give more specific information, given the high likelihood of needle/syringe sharing in prison once drugs are being injected (due to lack of sterile syringes).

Indicator A12 (ADDITIONAL): % ever-IDUs who report having ever been in prison

Definition:

- Numerator: Ever-IDUs who report having ever been in prison, including pre-trial custody or remands.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take from this group all those who report having ever been in prison (answer 2 on item QI03).

Indicator O22 (OPTIONAL): % ever-IDUs who report having ever injected in prison

Definition:

- Numerator: Ever-IDUs who report having ever injected in prison, including pre-trial custody or remands.
- Denominator: All ever-IDUs in the study.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take from this group all those who report having ever injected in prison (answer 1 on item QI09).

Suggested questions to construct these indicators (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QI03 Have you ever been in prison? This includes remands in custody.
0 No
1 Yes
8 Refused
9 Don´t know/remember

QI09 Have you ever injected drugs whilst inside prison or in custody?
0 No
1 Yes
8 Refused
9 Don´t know/remember

4.20 Country of birth

Rationale:

This indicator is important to understand associations with migration status. Migrants from certain countries are often found to have high prevalence of HIV, HBV and occasionally HCV infections. This can be due to factors affecting migrants in their new home country, e.g. linked to lower socio-economic status and/or access to services, or factors relating to the country where the individual has come from that are associated with the risk of infection.

Indicator A13 (ADDITIONAL): % ever-IDUs born outside the country of study

Definition:

- Numerator: Ever-IDUs born outside the country of study.
- Denominator: All ever-IDUs in the sample.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take all those who report not having been born in the country of the study (answer 2 on item QC03).

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QC03 In which country were you born?
1 Country of study
2 Another country…….....
Leave blank for codification: /__/__/__/
888 Refused
999 Don't know/remember

4.21 Homelessness

Rationale:

Homelessness is an indicator of marginalisation that can be strongly associated with HIV infection and other health and social problems including access to care and treatment. Knowing the proportion of IDUs who report having been homeless in the last 12 months is important for planning services as well as to understand HIV risks in the population of IDUs.

In this definition it is attempted to exclude people who live permanently in hostels or shelters, as well as to count any instance of homelessness regardless of its duration. It is thought that even a one night episode of homelessness is usually associated with stress and increased risk of adverse events, which may include risky injecting behaviour.

Homelessness is here referring to the stability of the living situation. People without a steady home are people who have lived in different places (friends' home, street, shelters, etc.), moving from one place to another in the period prior to the interview. If a person is living in an institution, he/she should not be included. The situation refers to any occurrence of homelessness during the last 12 months before the interview.

Indicator A14 (ADDITIONAL): % ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months

Definition:

- Numerator: Ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months.
- Denominator: All ever-IDUs in the sample.

Example Questionnaire instructions: For the denominator select all ever-IDUs in the sample (answer 1 on QB01). Then for the numerator take all those living without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months (answer 1 on item QM03).

Suggested questions to construct this indicator (see Example Questionnaire):

QB01 Have you ever injected drugs for a non-medical purpose, even if once?
0 No
1 Yes

QM03 Have you been homeless, such as living without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months?
0 No
1 Yes
8 Refused
9 Don't know/remember

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Abbreviations

CDC	Centres for Disease Control and Prevention
CIBERESP	Consortium for Biomedical Research in Epidemiology and Public Health, Spain
DRID	drug related infectious diseases
ECDC	European Centre for Disease Prevention and Control
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
FHI	Family Health International
GHB/GBL	Gamma-Hydroxybutyric acid/Gamma-ButyroLactone
HBV	hepatitis B virus
HCl	hydrochloride
HCV	hepatitis C virus
HIV	human immunodeficiency virus
HPA	Health Protection Agency, UK
ISCIII	Instituto de Salud “Carlos III” [“Carlos III” Health Institute]
IDUs	people who inject drugs [injecting drug users]
ISCED	International Standard Classification of Education
MDMA	3,4-MethyleneDioxyMethAmphetamine
MSM	men who have sex with men
NFP	national focal point
NSP	needle and syringe programmes
OPS/OMS	Organización Panamericana de la Salud/Organización Mundial de la Salud (Pan American Health Organization/World Health Organization)
OST	opioid substitution treatment
PAHO	Pan American Health Organization
Reitox	Réseau Européen d’Information sur les drogues et les Toxicomanies (European Information Network on Drugs and Drug Addiction)
SCIEH	Scottish Centre for Infection and Environmental Health
ST9	Standard Table 9
STI	University Mental Health Research Institute, Greece
TDI	treatment demand indicator
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Annex 1. Optional behavioural indicators in ST9 part 3

PRIORITY STATUS	THEMATIC AREA	INDICATOR	DRID EXAMPLE QUESTIONNAIRE	Section	Page
OPTIONAL INDICATORS	INJECTING RISK	O1 % current IDUs injecting with needles/syringes that had been used by others in the last 4 weeks	QF05, QF11	4.1	16
		O2 % current IDUs passing on used needles/syringes to others in the last 4 weeks	QF05, QF23	4.1	16
	TESTING	O3 % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months and who know their results	QB01, QJ02, QJ03	4.3	19
		O4 % ever-IDUs who have ever been tested for HIV	QB01, QJ01	4.3	19
		O5 % ever-IDUs who have ever been tested for HCV	QB01, QJ06	4.4	21
	INJECTING RISK	O6 % current IDUs who report using their last needle or syringe more than once	QF05, QF08, QF09	4.6	24
		O7 Mean and median number of times current IDUs report using their last needle or syringe	QF05, QF08, QF09	4.6	24
		O8 Mean and median number of injections in the last 4 weeks, among current IDUs	QF05, QF06, QF07	4.7	25
		O9 % current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks	QF05, QF15	4.8	27
		O10 Mean and median number of sharing partners among current IDUs, in the last 4 weeks (including those with zero partners)	QF05, QF15	4.8	27
	SEXUAL RISK	O11 % female ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months	QB01, QC02, QH15	4.9	28
		O12 % male ever-IDUs who report anal sex with a male partner in the last 12 months	QB01, QC02, QH02	4.10	29
		O13 % ever-IDUs who report the use of a condom at last sexual intercourse with a steady partner in the last 12 months	QB01, QH04, QH07	4.11	30
		O14 % ever-IDUs who report the use of a condom at last sexual intercourse with a casual partner in the last 12 months	QB01, QH10, QH13	4.11	30
		O15 % ever-IDUs who report the use of a condom at last sexual intercourse with a sex work client in the last 12 months	QB01, QH15, QH18	4.11	30
		O16 Mean and median number of partners with whom ever-IDUs have had sexual intercourse in the last 12 months	QB01, QH05, QH11, QH16, QH20	4.12	33
	INTERVENTION COVERAGE	O17 Mean and median number of sterile needles/syringes available for personal use in the last 4 weeks among current IDUs	QF05, QG04	4.13	34
	SOCIO-DEMOGRAPHIC	O18 Mean and median age of ever-IDUs	QA01, QB01, QC01	4.15	38
		O19 Mean and median age of new IDUs among all ever-IDUs	QA01, QB01, QC01, QF01	4.15	38
		O20 % ever-IDUs with less than 5 years since their first injection	QA01, QB01, QC01, QF01	4.17	40
		O21 Mean and median number of years since first injection among ever-IDUs	QA01, QB01, QC01, QF01	4.17	40
		O22 % ever-IDUs who report having ever injected in prison.	QB01, QI09	4.19	43

Annex 2. Main changes in the DRID Guidance Module in comparison to the 2006 pilot version of ST9 part 3

Note: A) This annex does not include all newly proposed indicators (see Table 2 and Annex 1 for the full list). As the aim here is to show changes since the previous pilot version, the annex includes the pilot indicators and only the new indicators that will be collected by the EMCDDA (i.e. those included in ST9 part 3). B) Indicators that are based on the pilot version for use at national level but not included in Fonte are shown in grey. C) The table follows the order of indicators in the pilot version (in the first column).

Fonte template pilot version 2007–12		**DRID Guidance Module: behavioural indicators for people who inject drugs**				
No.	**Label and data requested**	**No.**	**Label and definition**	**New**	**In Fonte**	**Changes and comparability**
1.3.1	Mean age of total sample Data requested 1 - Total sample size of ever injectors (IDUs). 2 - Number of IDUs with a valid answer for age. 3 - Mean age of total sample.	A8	% ever-IDUs under age 25 Definition: o Numerator: Ever-IDUs under age 25. o Denominator: All ever-IDUs in the study.	Yes	Yes	Changes: o Definition: Yes o Reference period: Does not apply o Format: Yes, from mean to percentage Comparable: No
		O18	Mean and median age of ever-IDUs Definition: o Mean and median age in years of all ever-IDUs.	No	No	Changes: o Definition: No o Reference period: Does not apply o Format: Mean unchanged, a median is added Comparable: Yes
1.3.2	Mean age (New injectors who injected for the first time less than 2 years ago) Data requested 4 - Number of new IDUs with a valid answer for age. 5 - Mean age of new injectors.	O19	Mean and median age of new IDUs among all ever-IDUs Definition: o Mean and median age in years of ever-IDUs who injected for the first time less than 2 years ago (new IDUs).	No	No	Changes: o Definition: No o Reference period: Does not apply o Format: Mean unchanged, a median is added Comparable: Yes
1.3.3	Proportion of female gender Data requested 6 - Number of females among the ever-IDUs. 7 - Number of ever-IDUs with valid information for gender. 8 - Proportion of females.	A9	% females among ever-IDUs Definition: o Numerator: Female ever-IDUs. o Denominator: All ever-IDUs in the sample.	No	Yes	Changes: o Definition: Minor changes o Reference period: No o Format: No Comparable: Yes

1.4.2	Sharing needles/syringes (includes both lending and borrowing as well as otherwise using a needle/syringe already used by someone else, even if cleaned) Data requested 9 - Number of current IDUs sharing needles/syringes. 10 - Number of current IDUs with a valid answer for needles/syringes. 11 - Proportion sharing needles/syringes	C1	% current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on) Definition: o Numerator: IDUs injecting with needles/syringes that have been used by others, or passing their used needles/syringes to others, even if cleaned, in the last 4 weeks. o Denominator: IDUs who have injected in the last 4 weeks.	No	Yes	Changes: o Definition: Minor changes Reference period: No o Format: No Comparable: Yes
1.4.4	Sharing needles/syringes or other injecting equipment (includes both lending and borrowing as well as otherwise using any injecting materials already used by someone else, even if cleaned — e.g. needle/syringe, water, cotton/filter, cooker, spoon, acid/lemon etc.) Data requested 12 - Number of current IDUs sharing paraphernalia. 13 - Number of current IDUs with a valid answer for sharing paraphernalia. 14 - Proportion sharing paraphernalia.	C2	% current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on) Definition: o Numerator: IDUs sharing any other used injecting materials than needles/syringes (using together, receiving or passing on), even if cleaned — e.g. water, cotton/filter, cooker, spoon, acid/lemon juice etc. o Denominator: IDUs who have injected in the last 4 weeks.	No	Yes	Changes: o Definition: Yes, pilot version included needles/syringes, these have been taken out, and other changes in wording o Reference period: No o Format: No Comparable: No ([16])

[16] Note that if there is a very large overlap between needle/syringe sharing and other paraphernalia sharing (in the sense that in an IDU population all those who have shared other paraphernalia also shared the needles/syringes, in other words 'other paraphernalia sharers' are a subgroup of 'needle/syringe sharers') then in that population the data are comparable; however this is unlikely to be the case, and such overlap itself might change over time.

1.4.6	Recent HIV testing uptake. (Has the user been tested for HIV infection in the last 12 months (before this survey or screening)? Data requested 15 - Number of ever-IDUs tested for HIV. 16 - Number of ever-IDUs with a valid answer for recent HIV testing. 17 - Proportion HIV tested. 18 - Proportion HIV tested and knowing test result.	C3	% ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months Definition: o Numerator: Ever-IDUs tested for HIV infection in the last 12 months, excluding those with known positive serostatus. o Denominator: All ever-IDUs excluding those with known positive status.	No	Yes	Changes: o Definition: Yes, cases with a known positive status are now excluded. If excluding these cases is not possible data can still be provided indicating this o Reference period: No o Format: No Comparable: Depending on HIV prevalence, data can be compared where prevalence is low ([17])
		O3	% ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months and who know their results (UNGASS indicator) Definition: o Numerator: Ever-IDUs tested for HIV infection in the last 12 months, who know their test result, excluding those with known positive serostatus. o Denominator: All ever-IDUs excluding those with known positive serostatus.	No	Yes	Changes: o Definition: Yes, cases with known positive status are now excluded. If this is not possible data can still be provided indicating this. o Reference period: No o Format: No Comparable: Depending on HIV prevalence, data can be compared where prevalence is low ([17])
1.4.8	Recent HCV testing uptake (Has the user been tested for HCV infection in the last 12 months (before this survey or screening)?) Data requested 19 - Number of ever-IDUs tested for HCV. 20 - Number of ever-IDUs with a valid answer for recent HCV testing. 21 - Proportion HCV tested. 22 - Proportion HCV tested and knowing test result.	C4	% ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months Definition: o Numerator: Ever-IDUs tested for HCV in the last 12 months, excluding those with known chronic infection or self-reported antibody positive. o Denominator: All ever-IDUs, excluding those with known chronic infection or self-reported antibody positive.	No	Yes	Changes: o Definition: Yes, excludes cases with a known chronic infection or self-reported antibody positive. o Reference period: No o Format: No Comparable: No

[17] In practice the difference will be small unless prevalence is very high, in countries where prevalence is very high data may only be compared if test uptake is not substantially different among positives and negatives (i.e. this is likely only the case when test uptake is generally low)

1.5.1	Injecting frequency (How many times did the user (ever-IDUs) inject in the last 4 weeks?) Data requested 23 - Number of ever-IDUs with a valid answer for injecting frequency. 24 - Proportion not injecting in the last 4 weeks. 25 - Proportion injecting once a week or less. 26 - Proportion injecting 2–6 times per week. 27 - Proportion injecting daily. 28 - Proportion injecting several times a day. 29 - Mean times injected in the last 4 weeks.	A2	% current IDUs injecting once per day or more, in the last 4 weeks Definition: o Numerator: IDUs who report injecting daily or more than daily, in the last 4 weeks. o Denominator: IDUs who have injected in the last 4 weeks.	No	Yes	Changes: o Definition: Yes o Reference period: No o Format: Yes – Zero category was dropped by changing to current IDUs; this results in different proportions – Of the original 5 proportions only the sum of daily injecting and injecting several times a day is now asked Comparable: No Note: could attempt to make comparable by recalculating (adding two categories together, leaving out non-injectors)
		O8	Mean and median number of injections in the last 4 weeks, among current IDUs Definition: o Population mean and median of the number of injections in the last 4 weeks, among IDUs who have injected in the last 4 weeks (current IDUs).	No	Yes	Changes: o Definition: Yes o Reference period: No o Format: Yes – Original zero category has been dropped by changing to current IDUs, this results in a different mean – Mean number of injections moved to Optional Comparable: Yes, if recalculated (taking out those not injecting in the last 4 weeks)

1.5.3	Personal reuse of needles/syringes (For the last needle and syringe that was already discarded, how many times did the respondent use it; if applicable: before sharing it?) Data requested 30 - Number of current IDUs with a valid answer for personal reuse of needles/syringes. 31 - Mean times of safe reuse per needle/syringe.	O6	% current IDUs who report using their last needle or syringe more than once Definition: ○ Numerator: Current IDUs who report using their last needle or syringe more than once before disposing of it and before anyone else used it. ○ Denominator: IDUs who have injected in the last 4 weeks (current IDUs).	No	No	Changes: ○ Definition: Yes, from 'reuse' to 'use' and minor changes in wording. ○ Reference period: No ○ Format: From mean to percentage Comparable: No
		O7	Mean and median number of times current IDUs report using their last needle or syringe Definition: ○ Mean and median number of times IDUs report using their last needle or syringe before disposing of it and before anyone else used it, among IDUs who have injected in the last 4 weeks (current IDUs).	No	No	Changes: ○ Definition: Yes, from 'reuse' to 'use' and minor changes in wording ○ Reference period: No ○ Format: No, median added Comparable: No Note: could attempt to make comparable by recalculating (use = reuse + 1)
1.5.5	Number of different sharing partners (From how many different people did the user borrow needles/syringes in the last 4 weeks? Note that this variable refers only to borrowing needles/syringes, not the sharing of other paraphernalia. If data are only available on the combined variable 'number of borrowing or lending partners' or 'number of injecting partners', then please provide the data and the definition used.) Data requested 32 - Number of current IDUs with a valid answer for different sharing partners. 33 - Proportion receiving needles/syringes from 2 or more people.	O9	% current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks Definition: ○ Numerator: Current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks. ○ Denominator: IDUs who have injected in the last 4 weeks.	No	No	Changes: ○ Definition: Yes, from '2 or more' to '3 or more', also minor changes in wording ○ Reference period: No ○ Format: No Comparable: No

	34 - Mean number of sharing partners in the last 4 weeks.	O10	Mean and median number of sharing partners among current IDUs, in the last 4 weeks (including those with zero partners) Definition: ○ Population mean among current IDUs (all who injected in the last 4 weeks) of the number of people from whom they received used needles/syringes in the last 4 weeks.	No	No	Changes: ○ Definition: No, minor changes in wording ○ Reference period: No ○ Format: Uncertain; no details were provided about the inclusion of zero partners on the pilot version. Median added Comparable: No Note: Due to lack of an accurate definition in the pilot version the comparability is uncertain
1.5.7	Sex workers (What proportion of ever-IDUs in the sample report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 4 weeks?) Data requested 35 - Number of ever-IDUs doing sex work in the last 4 weeks. 36 - Number of IDUs with a valid answer for sex work. 37 - Proportion IDUs reporting sex work in the last 4 weeks.	A3	% ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months Definition: ○ Numerator: Ever-IDUs who report having provided vaginal or anal sex to clients for money, drugs or other benefits in the last 12 months. ○ Denominator: All ever-IDUs in the study.	No	Yes	Changes: ○ Definition: Minor changes ○ Reference period: Yes ○ Format: No Comparable: No Note: Comparability may depend on regularity of sex work practices

1.5.9	Condom use at last intercourse (Of the ever-IDUs reporting sexual intercourse in the last 4 weeks, what proportion of them used a condom at the last intercourse? The questions could be formulated as follows: 'Have you had sexual intercourse in the last 4 weeks?' If yes: 'Did you or your partner use a condom when you last had sex?') Data requested 38 - Number of ever-IDUs with intercourse last 4 weeks. 39 – Number of IDUs using a condom at last intercourse. 40 - Number of IDUs with valid answer on condom use. 41 - Proportion using a condom at last intercourse.	A4	% ever-IDUs who report the use of a condom at last sexual intercourse (UNGASS indicator) Definition: o Numerator: Ever-IDUs who report that a condom was used the last time they had sexual (vaginal or anal) intercourse. o Denominator: Ever-IDUs who report having injected drugs and having had sexual intercourse in the last 12 months.	No	Yes	Changes: o Definition: No o Reference period: In the pilot version last intercourse was defined as in the last 4 weeks and now it is in the last 12 months. This should have minor effects on comparability of data as both are still referring to 'last sexual intercourse' o Format: No Comparable: Yes, with caution
1.6.1	Number of sterile needles/syringes (How many sterile needles/syringes did the user obtain in the last 4 weeks? Note this can be from any source.) Data requested 42 - Number of current IDUs with a valid answer for sterile needles/syringes. 43 - Mean number of sterile needles last 4 weeks.	A6	% current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks Definition: o Numerator: Current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks. o Denominator: All current IDUs in the study.	No	Yes	Changes: o Definition: Yes, change in wording from 'obtained' to 'available' o Reference period: No o Format: Yes, from mean to percentage Comparable: No
		O17	Mean and median number of sterile needles/syringes available for personal use in the last 4 weeks among current IDUs Definition: o Mean and median number of sterile needles/syringes available for personal use in the last 4 weeks among IDUs who have injected in the last 4 weeks.	No	No	Changes: o Definition: Yes, change in wording from 'obtained' to 'available' o Reference period: No o Format: Not in mean, median added Comparable: Yes (with caution)

1.6.3	Opioid maintenance (Has the user been in opioid maintenance in the last 4 weeks? i.e. using prescribed methadone, buprenorphine, heroin, etc.) Note that total sample for this question should be restricted to opioid users only. Data requested 44 – Number of opioid users (among the ever-IDUs). 45 - Number of IDUs in opioid maintenance. 46 - Number of primary opioid IDUs with valid answer. 47 - Proportion in opioid maintenance.	A7	% opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks Definition: ○ Numerator: Ever-IDUs who were in opioid substitution therapy in the last 4 weeks, i.e. using prescribed methadone, buprenorphine, heroin, etc. ○ Denominator: Ever-IDUs who report using any opioids in the last 4 weeks (injected or not injected, prescribed or not prescribed).	No	Yes	Changes: ○ Definition: No, minor changes in wording ○ Reference period: Yes, reference period for 'opioid user' was undefined in pilot version (only the period for opioid maintenance was defined), both are now 'last 4 weeks', this should not have big effects ○ Format: No Comparable: Yes (with caution)
1.7.1	Country of birth (Please provide data, if available, on the proportion with country of birth outside the country of survey. If country of birth is not available you may use nationality instead (then provide the proportion with nationality other than the country of survey, please state the variable used clearly in definition box below).) Data requested 48 - Number of ever-IDUs who are immigrants. 49 - Number with a valid answer on country of birth. 50 - Proportion immigrants.	A13	% ever-IDUs born outside the country of study Definition: ○ Numerator: Ever-IDUs born outside the country of study. ○ Denominator: All ever-IDUs in the sample.	No	Yes	Changes: ○ Definition: No, minor changes in wording ○ Reference period: Does not apply ○ Format: No Comparable: Yes

1.7.3	Homelessness (Please provide data, if available, on the proportion of recent-homeless IDUs. Recent homelessness is defined as living in a hostel, without a steady address or on the streets during more than 1 week in the last 12 months.) Data requested 51 - Number of ever-IDUs who were recently homeless. 52 - Number ever-IDUs with a valid answer for homelessness. 53 - Proportion recently homeless.	A14	% ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months Definition: o Numerator: Ever-IDUs who lived without a steady home, on the streets or temporarily in a hostel or shelter, any time in the last 12 months. o Denominator: All ever-IDUs in the sample.	No	Yes	Changes: o Definition: Minor changes in wording o Reference period: No o Format: No Comparable: Yes Note: in practice the changes in definition are not likely to make a large difference
1.7.5	History of injecting (Please provide data, if available, on the years of injecting.) Data requested 54 - Number of ever-IDUs with a valid answer for history of injection. 55 - Proportion <2 years since 1st injection. 56 - Proportion 2 to <5 years since 1st injection. 57 - Proportion 5 to <10 years since 1st injection. 58 - Proportion 10 years or more since 1st injection. 59 - Median years of injecting in the sample.	A10	% ever-IDUs with less than 2 years since their first injection Definition: o Numerator: Ever-IDUs with less than 2 years since their first injection. o Denominator: All ever-IDUs in the sample.	No	Yes	Changes: o Definition: No o Reference period: No o Format: Yes, from the original four proportions the proportion 'injecting less than 2 years' is Additional and remains unchanged, and the proportion 'injecting less than 5 years', which was formerly 'injecting 2–5 years', has been moved to Optional. Other proportions are no longer asked in ST9 part 3 ('5–10 years' and 'more than 10 years' — note they continue in part 2). Comparable: Yes
		O20	% ever-IDUs with less than 5 years since their first injection Definition: o Numerator: Ever-IDUs with less than 5 years since their first injection. o Denominator: All ever-IDUs in the sample.	No	No	Changes: o Definition: Yes o Reference period: Yes o Format: No Comparable: Data can be compared over time if recalculated (adding the first two categories together)

		O21	Mean and median number of years since first injection among ever-IDUs Definition: ○ Mean and median value of years since first injection among ever-IDUs.	No	No	Changes: ○ Definition: No ○ Reference period: does not apply ○ Format: No Comparable: Yes
		A1	% current IDUs who report the use of a sterile needle/syringe the last time they injected (UNGASS Indicator ([18])) Definition: ○ Numerator: IDUs who have injected in the last 4 weeks and who report the use of a sterile needle/syringe the last time they injected. ○ Denominator: IDUs who have injected in the last 4 weeks.	Yes	Yes	
		A5	% ever-IDUs who report sexual intercourse with more than one partner in the last 12 months Definition: ○ Numerator: Ever-IDUs who report sexual intercourse (vaginal or anal) with more than one partner in the last 12 months. This is the total number of partners, including steady, casual, client and paid partners. ○ Denominator: All ever-IDUs in the study.	Yes	Yes	

[18] Although the name/label of the indicator seems different, in reality the UNGASS indicator measures the use of a sterile 'needle/syringe' and not 'equipment' (UNAIDS, 2009, p. 65).

		A11	% ever-IDUs who report an opioid as their primary drug in the last 4 weeks Definition: o Numerator: Ever-IDUs who report that their primary drug in the last 4 weeks was an opioid. Primary drug is the drug that the user reports as causing most problems at entry into treatment. In non-treatment settings the 'problem drug' most frequently used can be used instead (problem drugs include opioids or stimulants — cocaine, amphetamines — but exclude cannabis and other 'lighter' drugs), see example questionnaire question QE43. Whether primary drug or most frequently used drug is reported for this indicator should be indicated in the specific field in the Fonte template. o Denominator: All ever-IDUs in the study.	Yes	Yes	New in ST9 part 3, taken from ST9 part 2
		A12	% ever-IDUs who report having ever been in prison. Definition: o Numerator: Ever-IDUs who report having ever been in prison, including pre-trial custody or remands. o Denominator: All ever-IDUs in the study..	Yes	Yes	New in ST9 part 3, taken from ST9 part 2

Annex 3. Behavioural information in the other parts of ST9

ST9 part 2

ST9 part 2 is the template for reporting aggregated biomarkers prevalence in the sample. Although it is not primarily aimed at collecting behavioural or demographic information, by asking for prevalence breakdowns these data are implicitly collected. For example, if prevalence is reported broken down by gender and sample sizes for both sexes are provided then the percentage of females can be calculated from these sample sizes. However, when prevalence is low the breakdowns are often not provided; this could then still be done through ST9 part 3.

Some demographic and behavioural information can thus be extracted from ST9 part 3 by analysing the sample sizes of the following prevalence breakdowns:

- PREVALENCE BY GENDER
    - Male
    - Female

- PREVALENCE BY AGE
    - <25
    - 25–34
    - >34

- PREVALENCE BY YEARS SINCE FIRST INJECTION
    - <2
    - 2<5
    - 5<10
    - 10 or more

- PREVALENCE BY PRIMARY DRUG
    - Opioids
    - Other than opioids

- PREVALENCE BY FIRST TREATMENT DEMAND
    - IDUs entering first treatment ever
    - All other IDUs (both in treatment and not in treatment)

- PREVALENCE BY EVER IN PRISON
    - Ever in prison
    - Never in prison

ST9 part 1

ST9 part 1 is the template for reporting methodological information about the study sample. As sample size is not reported here the following information is available at sample level that might be related to the behavioural data:

- DEFINITION OF INJECTORS
    - Ever-IDUs (give estimated % of these in the sample)
    - Current IDUs (give recall period used for 'current', give estimated % of these in the sample)
    - IDU status is not known, sample may include never-IDUs

- HAS THE SAMPLE BEEN RESTRICTED BY
    - TIME SINCE FIRST INJECTION (only <2 yrs, other — specify)
    - GENDER (males only, females only)
    - AGE (if yes, give min. and max. age)

- RECRUITMENT SETTING
    - Overdose deaths (forensic institutes)
    - (Drug) emergency (clinics)
    - Drug treatment centres
    - Drug treatment centres (drug free/detox)
    - Drug treatment centres (inpatient)
    - Drug treatment centres (maintenance)
    - Drug treatment centres (outpatient)
    - Needle/syringe programmes
    - Other low-threshold services including outreach
    - Public health laboratories
    - STI clinics
    - Antenatal clinics
    - Other hospital/clinics
    - Prisons
    - Arrests (police)
    - General practitioners
    - HIV testing centres
    - Street recruitment
    - Other (please specify below)

Annex 4. Behavioural information in other areas of EMCDDA monitoring

For more detail see www.emcdda.europa.eu/themes/key-indicators and www.emcdda.europa.eu/stats10/hsr

- NSP COVERAGE: In the area of 'health and social responses' the coverage of NSP is estimated at population level, using estimates of the total population of IDUs as denominator and number of syringes/needles distributed as the numerator. www.emcdda.europa.eu/stats10/hsrfig3

- OST COVERAGE: In the area of 'health and social responses' the coverage of OST is estimated at population level, using estimates of the total population of opioid users as denominator and numbers in OST treatment as numerator. Although this indicator is not specific to IDUs it may in many cases be used as a proxy for OST coverage among opioid using IDUs.
  www.emcdda.europa.eu/stats10/hsrfig1

- IDU AND OPIOID USING POPULATION SIZE ESTIMATES: In the area 'problem drug use' national and sub-national estimates are being collected of the IDU and opioid using population that are being used for population level OST and NSP coverage indicators. www.emcdda.europa.eu/stats10/pdufig2

- In the TREATMENT DEMAND INDICATOR area data are being collected on clients entering drug treatment (according to three overlapping groups: first time ever entrants, all treatment entrants, all prevalent cases in treatment). A number of indicators are collected in the TDI data that can be provided by injection status. Recent discussions in the TDI area have resulted in including four new variables to the TDI protocol that are relevant to DRID, these being: 1) years since first injection; 2) sharing needles/syringes in the last 4 weeks; 3) HIV testing in the last 12 months; and 4) HCV testing in the last 12 months. Currently the following demographic or behavioural indicators can be provided for IDUs (TDI indicators that are less relevant for DRID are omitted here) (EMCDDA, 2012b).
  www.emcdda.europa.eu/themes/key-indicators/tdi

  - 1. Treatment-centre type
    1. outpatient treatment centres/programmes
    2. inpatient treatment centres/programmes
    3. treatment units in prison/programmes
    4. general practitioners/programmes
    5. low threshold agencies/programmes
    6. other (please specify which type of treatment centre/programme)
    99. not known

  - 3. Ever previously treated
    1. never previously treated
    2. previously treated
    99. not known

  - 5. Sex
    1. male
    2. female
    99. not known

  - 7. Living status (with whom)
    1. alone
    2. with the family of origin (parents, etc.)
    3. with partner/children
    4. with friends or other people (with no family relation)

5. in detention
6. in institutions/shelters (not detention)
7. others
99. not known

- 9. Living status (where)
  1. stable accommodation
  2. unstable accommodation and/or homeless
  3. in detention
  4. others
  99. not known

- 10. Labour status
  1. occasionally employed
  2. regularly employed
  3. student
  4. unemployed/discouraged
  5. receiving social benefits/pensioners/house-makers/disabled
  6. others
  99. not known

- 11. Highest educational level completed
  1. never went to school/never completed primary school (ISCED 0)
  2. primary level of education (=ISCED 1)
  3. secondary level of education (=ISCED 2 and ISCED 3)
  4. higher education (=ISCED 4 to 6)
  99. not known/missing

- 12. Primary drug ([19])
  1. Opioids (total)
     - 11 heroin
     - 12 methadone misused
     - 13 buprenorphine misused
     - 14 fentanyl illicit/misused
     - 15 other opioids (please specify)
  2. Cocaine (total)
     - 21 powder cocaine HCl
     - 22 crack cocaine
     - 23 others (please specify)
  3. Stimulants other than cocaine (total)
     - 31 amphetamines
     - 32 methamphetamines
     - 33 MDMA and derivatives
     - 34 synthetic cathinones
     - 35 other stimulants (please specify)
  4. Hypnotics and sedatives (total)
     - 41 barbiturates misused
     - 42 benzodiazepines misused
     - 43 GHB/GBL
     - 44 other hypnotics and sedatives misused (please specify)
  5. Hallucinogens (total)
     - 51 LSD
     - 52 ketamine
     - 53 other hallucinogens (please specify)
  6. Volatile inhalants

[19] Note that several substances in the list can be produced illicitly (e.g. fentanyl or some amphetamines) or diverted from legitimate sources. For the purpose of this protocol, both sources are included.

7. Cannabis (total)
8. Other substances (total) (please specify which substance)
99. Not known

- 13. Usual route of administration of primary drug
  1. inject
  2. smoke/inhale
  3. eat/drink
  4. sniff
  5. others
  99. not known

- 14. Frequency of use of primary drug
  1. daily
  2. 4–6 days per week
  3. 2–3 days per week
  4. once a week or less
  5. not used in the last 30 days
  99. not known

- 15. Age at first use of primary drug (in years)
  Age: /_____/
  99. not known

- 16. Secondary drugs
  (see list of drugs in 12 — primary drug; note, however, secondary drugs include alcohol)

- 18. Opioid substitution treatment (OST)
  1. never been in OST
  2. ever been in OST
  99. not known

- 20. Ever injected or currently injecting any drug
  1. never injected
  2. ever injected
     2.1 injected, but not in the last 12 months
     2.2 injected in the last 12 months, but not in the last 30 days
     2.3 currently injecting (in the last 30 days)
  3. don't want to answer
  99. not known

- 21. Age at first injection (in years)
  Age: /_____/
  99. not known

- 22. HIV testing
  1. never tested
  2. ever tested
     2.1 tested, but not in the last 12 months
     2.2 tested in the last 12 months
  3. don't want to answer
  99. not known

- 23. HCV testing
  1. never tested
  2. ever tested

2.1 tested, but not in the last 12 months
2.2 tested in the last 12 months
3. don't want to answer
99. not known

- 24. Needle/syringe sharing
  1. never shared a needle or syringe
  2. ever shared a needle or syringe
     2.1 shared but not in the last 12 months
     2.2 shared in the last 12 months, but not in the last 30 days
     2.3 currently shared (in the last 30 days)
  3. don’t want to answer
  99. not known

European Monitoring Centre
for Drugs and Drug Addiction

DRID Guidance Module

EXAMPLE QUESTIONNAIRE FOR BIO-BEHAVIOURAL SURVEYS IN PEOPLE WHO INJECT DRUGS

EMCDDA DRID Example Questionnaire
VERSION 2.0

27/01/2014

EMCDDA Drug Related Infectious Diseases (DRID) Monitoring Guidance Toolkit

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Authors and acknowledgments

This second version of the DRID Example Questionnaire was prepared by María J Bravo (ISCIII; CIBERESP, Spain) and Lucas Wiessing (EMCDDA), based on a first draft version developed by the Greek REITOX Focal Point UMHRI[#].

Substantial input was given by (in alphabetical order): Anastasios Fotiou*, Don Des Jarlais*, Doris Radun*, Leonie Prasad*, Mirjam Sabin*, Robert Heimer*, Viktor Mravcik*, Vivian Hope*.

We are further grateful for important input from: Catharina Matheï*, Esther Croes*, Lisa Johnston*, Magdalena Rosinska*, Marcis Trapencieris*, Marie Jauffret-Roustide*

Respondents to the 2010 survey of European experts on these indicators were: Alain Origer, Anastasios Fotiou*, Andrea Tramarin, Andrei Botescu, Anna Tarján, Ave Talu and Katri Abel-Ollo, Don Des Jarlais*, Doris Radun*, Esther Croes*, Cinta Folch, Gabor Gazdag, Gianfranco Spiteri, Hans Blystad* and Ellen Amundsen, Henrikki Brummer-Korvenkontio, Raina Ilieva, Ilonka Horvath and Martin Busch, Irena Klavs*, Marie Jauffret-Roustide*, José Pádua, József Rácz, Niklas Karlsson, Leonie Prasad*, Magdalena Rosinska, Mária Dudás, María José Bravo*, Natasa Savvopoulou, Vlastimil Necas, Robert Heimer*, Sharon Hutchinson*, Slávka Lenerová, Tiphaine Canarelli, Vivian Hope*, Vitomir Burek, Vytautas Gasperass.

We also thank ECDC (Anastasia Pharris*, Mika Salminen*, Erika Duffel), UNAIDS (Miriam Sabin*), WHO (Jesus García Calleja*, Martin Donoghoe), and EMCDDA colleagues Alessandra Bo, Alessandro Pirona, Andre Noor, Anna Gyarmathy, Bruno Guarita, Cecile Martel, Dagmar Hedrich, Danica Klempová, Dominique Lopez, Eleni Kalamara, Isabelle Giraudon, Jane Mounteney, Julian Vicente, Katerina Skarupova, Klaudia Palczak, Linda Montanari, Luigi Nisini, Marica Ferri, Paul Griffiths, Sandrine Sleiman, Teodora Groshkova and Ulrik Solberg for their comments and suggestions.

We are grateful for additional input from other colleagues, including the participants of the EMCDDA DRID expert meetings 2007–11, who have provided additional comments and suggestions during the discussions and workshops in these meetings: Alain Origer, Ana Martins, Anda Karnite, Andrea Tramarin, Anneli Uuskula, Arzu Dalmış, Asena Mateeva, Barbora Orlikova, Blanca Castillo, Bogdan Gheorghe, Branko Kolarić, Canan Yilmaz, Caroline Semaille, Catharina Matheï, Charlotte Wirl, Colin Taylor, Dmitry Chernyshev, Elena Alvarez, Elsa Maia, Eva Machova, Eva Ščerba, Fortune Ncube, Frida Hansdotter, George Peschanskih, Gianfranco Spiteri, Giedrius Likatavicius, Giuseppe Salamina, Graça Vilar, Heiko Jahn, Irma Caplinskiene, Jan Fouchard, Jean Long, Jenneke van Ditzhuijzen, Jevgenia Epštein, John V. Parry, Kaat Bollaerts*, Kari Grasaasen, Katerina Skarupova, Keith Sabin, Ksenia Eritsyan, Kuulo Kutsar, Leonie Prasad, Lillebil Nordén, Lucian Suditu, Mª Encarnación Monzó Castellano, Marc Rondy, Marcis Trapencieris, Mária Dudás, Maria Spyropoulou, Mário Castro, Mario Cruciani, Marita van de Laar*, Marko Markus, Marta Struzik, Martin Donoghoe*, Maud Pousset, Mehmet Akgun, Milica Georgescu, Mirjam Kretzschmar, Monica K. Nordvik, Moses Camilleri, Natasa Savvopoulou, Nathalie Deprez, Noel Craine, Peter Vickerman, Peyman Altan, Rafael Mikolajczyk, Riku Lehtovuori*, Robert Broadhead*, Rui Pedro, Russell Barbour, Ruth Zimmermann, Silvia Slezakova, Silvia Zanone, Sofia Lopes da Costa, Stine Nielsen, Susan Cowan*, Suzi Lyons, Svetlana Sidyak, Tanja Kustec, Tessa Windelinckx, Tommi Asikainen, Viktor Mravcik, Vyatcheslav Baturin, Ziv Shkedy.

The work described here builds on the 'pilot version of ST9 part 3', developed by the EMCDDA in 2006. In addition, this work substantially benefited from the work on the draft DRID protocol, in particular on the 'DRID example questionnaire' included in that protocol, produced by the Greek

[#] The first version of this questionnaire was developed in the framework of the 'Protocol for the implementation of the DRID-EMCDDA indicator' and was elaborated under contract by the Greek REITOX Focal Point, University Mental Health Research Institute (UMHRI). 6 October 2006 EMCDDA/Greek REITOX Focal Point UMHRI (PROJECT CT.04.P1.337).

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National Focal Point and EMCDDA in 2006 (EMCDDA, 2006). The development of the draft DRID protocol was coordinated by Katerina Kontogeorgiou and Manina Terzidou (Greek National Focal Point) and Lucas Wiessing, Danica Klempova, Colin Taylor and Paul Griffiths (EMCDDA) with contributions from Clive Richardson, Anastasia Drymousi, Georgia B. Nikolopoulou, Maria Hadjivassiliou, Irene Vafiadi-Zoubouli, Viktor Mravcik, Maria Jose Bravo, Anneke Krol, Lubomir Okruhlica, Vivian Hope and Françoise Dubois-Arber.

The current module, 'Example questionnaire for bio-behavioural surveys in people who inject drugs', was commissioned by the EMCDDA (contracts CC.10.EPI.010 and CC.10.EPI.012).

Recommended citation:
European Monitoring Centre for Drugs and Drug Addiction (2013), *DRID Guidance Module: Example questionnaire for bio-behavioural surveys in people who inject drugs,* EMCDDA, Lisbon.

Notes for researchers

What is the aim of the EMCDDA DRID Example Questionnaire (EQ)?

- To contribute to the standardisation of the epidemiological measures used in the surveillance of Standard Table 9 (ST9) behavioural indicators and other relevant DRID indicators.

> The EQ constitutes one module of the EMCDDA Drug Related Infectious Diseases (DRID) Guidance Toolkit

The questionnaire includes:

- The questions needed to build all the EMCDDA DRID behavioural indicators.
- Other questions that can be used for issues generally included in surveys of drug injectors.

What this Example Questionnaire is NOT:

- This questionnaire is not primarily intended for direct unmodified use in a survey or study. It would probably be far too long for most studies and would need to be shortened and adapted to study objectives. The questionnaire is principally meant to be used as a structured list of individual example questions or sets of questions that can be taken out and used for specific studies depending on their objectives.

- However, the structure of this Example Questionnaire follows the standard logic of many bio-behavioural studies in order that the user can understand how responses to some questions will result in skipping other questions that do not apply and what is a possible order of topics. Thus, if the researcher wishes to apply any section as a whole it can be done without any modification (see below).

Which are the principal sources of the EMCDDA DRID EQ?

- The EQ is based on a set of published (FHI, 2000; PAHO/WHO, 2008a, 2008b, 2008c; Stimson et al., 1998) and unpublished questionnaires (Czech NFP, 2003; EMCDDA, 2000; HPA, 2003; ISCIII, 2001; RIVM, 2002; SCIEH, 1999; WHO, 2000) used in surveys of people who inject drugs (injecting drug users/IDUs) in Europe.

- Particular attention was paid to WHO and PAHO/WHO questionnaires as they were designed to fit with different epidemiological situations regarding drug use and drug injection; both were designed to be worldwide applied to injectors and non-injectors in countries with a great variation of human immunodeficiency virus (HIV) or hepatitis C virus (HCV) infection prevalence among IDUs.

- For each section of the EQ a set of questions was selected and then modified, when needed, in order to meet the criteria for the construction of the EMCDDA Behavioural Indicators for people who inject drugs.

- The basic principles that governed the construction of the EQ questionnaire were:

    - When available, to follow the scientific evidence on the content validity and reliability of the selected questions. Although a systematic review of published evidence was not performed — it would have been extremely resource intensive given the large number of indicators included here — numerous experts provided specific pieces of evidence and gave their opinions through the EMCDDA expert consultation (EMCDDA 2011) and EMCDDA DRID expert

meetings ([1]). When no scientific evidence was available, the questions were selected based on their higher face validity.

- To keep the modifications to a minimum in order to maintain comparability with the source questionnaire. Thus, in those sections not including any question related to the EMCDDA behavioural indicators for people who inject drugs, the wording and format of the selected questions included in the EQ have been maintained unchanged, or with slight modifications as compared to the original source. This is the case for the sections on health care (Section K) knowledge/attitudes (Section L) and mobility (Section N), where the selected questions are almost exactly as in the original WHO questionnaire (minor changes in wording were performed when this was thought to improve comprehension or face validity); this is also the case for the paragraphs that should be read out by the interviewer in order to introduce the survey to the participant and ask for informed consent (see 'Instructions to the interviewer') (FHI 2000).

- Finally, guidelines published by CDC (Allen et al., 2009; Lansky et al., 2007; Gallagher et al., 2007), ECDC (ECDC, 2009, 2010), FHI (FHI, 2000), UNAIDS (UNAIDS, 2009; UNAIDS, WHO and Others, 2000) and WHO (WHO and UNAIDS, 2000, 2002; WHO et al., 2009; PAHO/WHO, 2008a, 2008b, 2008c) were also reviewed. Particular attention was paid to the selection and wording of the recall periods according to definitions used by other EMCDDA indicators or other institutions/organisations (Dubois-Arber et al., 2011; EMCDDA, 2006, 2011, 2012; FHI, 2000; PAHO/WHO, 2008a, 2008b, 2008c; UNAIDS, 2009; WHO et al., 2009).

How can the EQ be used?

- Selecting certain questions and placing them in another questionnaire to be used in a particular bio-behavioural survey in any country.

    - This will allow you to obtain those EMCDDA indicators whose corresponding questions you have chosen.
    - It is worth paying special attention to the questions that are designed in a 'flexible format'.

- For larger questionnaires, using the complete sections of the EQ can also be an interesting option. Each section has been designed to allow being applied in full if required.

- Although this is not its principal aim, the EQ can be used in full, as any other questionnaire. Nevertheless, the researcher must be well conscious of the average duration of the interview and the consequences of its application in full on the feasibility of the study.

- The EQ has been designed to be used in interviews.

- Self-completion is not recommended.

- It can be administered in agency/care centre or non-agency (community) settings.

- The questionnaire is available from the EMCDDA (www.emcdda.europa.eu/themes/key-indicators/drid) in two formats: PDF and Word. You can adapt the Word file to your needs when creating your questionnaire by copying and pasting specific questions or sections of

[1] For details, see also the section Methodological Notes in the EMCDDA 'DRID guidance module: Behavioural indicators for people who inject drugs' (version 1.0).

the questionnaire. If this is the case, please include a reference to the EQ as the source, either partially or fully used, in your questionnaire.

Suggested citation:

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2013), 'DRID guidance module: Example questionnaire for bio-behavioural surveys in people who inject drugs, version 2.0', EMCDDA Manuals, Lisbon.

How to identify the indicator-related questions currently being reported through the Fonte template ST9 part 3

- Currently all Core and Additional indicators are collected through the Fonte template ST9 part 3, as well as two optional indicators (O3 and O8).

  In the EQ, all the boxes containing the questions related to these behavioural indicators are shaded in grey for easy identification.

Which are the main recall periods used in the EQ?

- Last 4 weeks before the interview.

  Last 4 weeks is the recall period used, for example, for drug injection related behaviours. Frequent events are more easily asked and recalled when referring to short periods of time.

- Last 12 months before the interview.

  Last 12 months is the recall period selected for sexual behaviour, testing uptake or homelessness. Remember that if the behaviour to be measured is not frequent or regular, a short period of time (such as last 4 weeks) may not be efficient as it will give too many empty responses. For example, information on condom use is unlikely to be gathered for people with irregular or infrequent sexual practices when using 'last 4 weeks' as the recall period.

- Last event.

To which population can the EQ be applied?

- The study population may only consist of 'ever-IDUs' (i.e. people who have ever injected in their lifetime, even if only once — this includes current IDUs), or be restricted to current IDUs (those injecting in the last 4 weeks) ([2]) or may conversely even include never-injectors (e.g. problem drug users who never injected). Note that if the EQ is applied to a population that includes many non-current IDUs, large parts of the questionnaire are not applicable. Whether this is desirable or not will depend on the main objectives of the study.

- Remember that you can choose the questions with a 'flexible format' and place them in your study questionnaire, to make the connection between the recall period of a given EMCDDA DRID behavioural indicator and the recall period you are otherwise using in your study.

[2] The EMCDDA definition of problem drug use (PDU) is 'injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines'. A particular DRID study could for example choose to use both injecting and non-injecting problem drug users as target population, or, it might target 'ever-IDUs among the PDUs' (including current injectors), or (most commonly) it might restrict itself to current injectors.

What is the 'flexible format' and how does it work?

The flexible format tries to provide a solution to the problem of comparability between surveys that use different recall periods for behavioural questions.

> Using the flexible format you can still use your own questionnaire with your recruitment criteria and specific recall periods, but can make your results comparable to some of the DRID EMCDDA ST9 indicators.

The flexible format in the DRID example questionnaire is presented in two ways:

1. A format that allows the researcher to place the occurrence of a given behaviour within a set of time frame categories.

   Thus, for studies using recall periods that are different to those proposed by the 'EMCDDA DRID guidance module: Behavioural indicators for people who inject drugs' it is recommended that a question is included that, for some particular behaviours, allows for some limited comparisons.

   Let's suppose that in your questionnaire you are using a recall period of 'last 12 months' for Indicator A7 (% opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks), which uses a recall period of 4 weeks. Using the following flexible format would allow you to maintain your own recall period while still being able to compare with Indicator A7. In this case, by writing '12' in the dotted space your questionnaire will allow you to compare the percentage of participants that report the behaviour (opioid substitution treatment) in the last 4 weeks (Indicator A7) with the percentage of participants that report it in the last 12 months. Note that the categories must be exclusive and exhaustive. Thus, you will be able to provide the data on indicator A7 to the EMCDDA regardless of the recall period that you were particularly interested in.

Question QD07:		
Regarding opioid substitution treatment, have you been in this type of treatment either in the last 4 weeks, last … months or before? *Read all options to the participant or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks, but in last … months Before last … months Refused Don't know/remember	1 2 3 8 9
Simply write in the dotted space (…) the recall period that are you using in your survey for this question. Note that you could make a substitution by any recall period that you are using in your questionnaire — 6 months, 12 months or any other.		

   There are five questions with this specific format in the Example Questionnaire (QD07, QF11, QF17, QF23, QF27) and four of them are used in the following behavioural ST9 indicators included in Fonte:

   Indicator C1: % current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on) (QF11, QF23)

   Indicator C2: % current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on) (QF17)

   Indicator A7: % opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks (QD07)

2. A format that, by asking the date of the last time that an event occurred, allows you to tailor the recall period.

   In this way you can obtain the prevalence of a given behaviour in 4 weeks, 6 months, 12 months or any other time frame that you wish.

   See the following two examples:

Example 2.1

When was the last time you had an HIV test?	Month /__/__/ Year/__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999
What was the result of your last HIV test?	Negative Positive Indeterminate Waiting for the results Refused Don't know/remember	0 1 2 3 8 9

Example 2.2

When did you last inject a drug? *Write the date of the last injection. If it took place more than 4 weeks ago, then register only month and year.* *If it occurred long time ago and he/she does not remember the month, then register only the year.*	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y *If she/he has not injected in the last 4 weeks, then skip to →*	 88 88 8888 99 99 9999 →

There are nine questions with these specific types of flexible format in the Example Questionnaire (QD04, QF05, QI05, QI10, QJ02, QJO5, QJ07, QJ10, QK07) and three of them are used in the following core or additional behavioural ST9 indicators included in Fonte:

Indicator C1:	% current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on) (QF05)
Indicator C2:	% current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on) (QF05)
Indicator C3:	% ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months (QJ02)
Indicator C4:	% ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months (QJ07)
Indicator A1:	% current IDUs who report the use of a sterile needle/syringe the last time they injected (QF05)
Indicator A2:	% current IDUs injecting once per day or more in the last 4 weeks (QF05)
Indicator A6:	% current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks (QF05)
Indicator O8:	Mean and median number of injections in the last 4 weeks, among current IDUs (QF05)

The main drawback of the flexible format is that it cannot be used for those indicators related to the frequency of events, such as the percentage of current IDUs injecting once per day or more, in the last 4 weeks.

There is no evidence about the accuracy or reliability of this approach. Nevertheless, there is no apparent reason to think that it would be less accurate or reliable than the format that places a given recall period as a rigid time frame for a behavioural question.

Even if *you do not intend* to use the DRID EMCDDA Example Questionnaire

↓

Please use the *flexible format* to design some of your questions *and make your results comparable* for some indicators.

How to build the indicators from the EQ questions

The instructions for the construction of the behavioural indicators are provided in the document 'DRID guidance module: Behavioural indicators for people who inject drugs' (EMCDDA, 2013), where specific references are made to the corresponding questions in the Example Questionnaire.

A very important issue, whether you are building the ST9 indicators from the EQ or selecting any other question or set of questions to include in your own measurement instrument, is that the existence of skips between questions should be kept in mind. Thus, in order to maintain a logical sequence in your questionnaire when incorporating one question or a group of questions, it is advised that you carefully review what the skips in the EQ mean in terms of design for your questionnaire.

If you select a complete section or the whole questionnaire, the skips between questions are already in place and you do not have to change them.

When selecting a question or a set of questions from the EQ in order to include them in your own questionnaire, careful attention should be paid to the design of skips between questions.

EMCDDA DRID EXAMPLE QUESTIONNAIRE (EQ)

1. **Instructions to the interviewer** to apply the EQ

- Before asking questions, introduce yourself and the study. Obtaining informed consent is mandatory. For example:

  'My name is …, and I'm working for …. We're interviewing people in order to find about …. [describe the objective of the study]. Have you been already interviewed in [cite the appropriate time period] for this study?'

  If the respondent has been interviewed before during this round of surveys, do not interview this person again. Explain the reason, thank them and end the interview. If they have not been interviewed, continue:

  'I'm going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and consequently it will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answer to these questions will help us to better understand what people think, say and do about certain behaviours. We would greatly appreciate your help in responding this survey. The survey will take about XX minutes. Would you be willing to participate?' (FHI, 2000).

- All the instructions to the interviewer are in *italic.* The EQ includes two types of questions:

1. Questions with pre-coded categories. For example:

During the last 12 months, were you living with any of the following persons in the same household? *Read all options to the participant or show the card. Tick all the categories that he/she mentions.*	I didn´t live with anybody: Alone	01
	With partner(s)	02
	With partner (s) and children	03
	With my children only	04
	With parents	05
	With other relatives	06
	With other adults/friends	07
	Other, specify …….	08
	Refused	88
	Don't know/remember	99

   → Circle the answer/s that apply to the respondent.
   → When he/she refuses, does not know/remember, circle the corresponding option as well.
   → Be aware of the number of categories that apply to each question. Some of them ask for more than one answer.
   → When indicated, read the categories aloud.
   → When indicated show the prompt card.

2. Questions where you should write a number. For example:

During the last 4 weeks how many days did you inject?	Number of days /__/__/	
	Refused	88
	Don't know/remember	99

   → Use clear writing. Align the number on the right; i.e., if the answer is 5, then enter */0/5/*. If you write */5/ /* (leaving a blank on the right), it can be mistakenly registered as 50.
   → When letters are required, please use capitals and write it verbatim.

- Every question should be read literally, following exactly the wording of the question and categories.

2. Instructions about coding and completeness:

Code of the survey	/__/__/__/__/ /__/__/__/ /__/__/__/ Participant's code Setting code Survey code
To be filled in at the end of the interview: Did the interviewer check the completeness of the questionnaire?	0 No 1 Yes
Interviewer's name:	…….

EMCDDA DRID EXAMPLE QUESTIONNAIRE

SECTION A: INTERVIEW INFORMATION

Question number		Questions and filters	Categories		Skip to
QA	01	Date of the interview (DD/MM/YYYY)	Day /__/__/ Month /__/__/ Year /__/__/__/__/		
QA	02	Interviewer code	/__/__/__/		
QA	03	Participant code	/__/__/__/__/		
QA	04	Setting code	/__/__/__/		
QA	05	Survey code	/__/__/__/		
QA	06	Written or oral informed consent	No Yes	0 1	→ Reject
QA	07	Biological sample taken	No Yes, blood Yes, saliva Yes, urine Other, specify ……..	0 1 2 34	
QA	08	Identification code of biological sample/s *Stick the label/s here.*			

SECTION B: ELIGIBILITY CHECK

Question number		Questions and filters	Categories		Skip to
This is a very important section as it decides who will be entered in the study. No categories for Refused or Don't know/remember are included. Recruitment depends on the selection criteria.					
QB	01	Have you ever injected drugs for a non-medical purpose, even if once?	No Yes	0 1	→ Reject
QB	02	Have you used heroin, methadone or other opioids and/or cocaine, amphetamines or any other illegal drug in the last 12 months? *Note that this question refers to any route of administration*	No Yes	0 1	
QB	03	Have you injected any drug in the last 12 months, even if once?	No Yes	0 1	
QB	04	Have you injected any drug in the last 4 weeks, even if once?	No Yes	0 1	
QB	05	Have you been interviewed for this study before?	No Yes	0 1	→ Reject
If the interviewee does not meet the criteria, please thank them and say goodbye.					

SECTION C: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Question number		Questions and filters	Categories		Skip to
QC	01	What is your date of birth? (DD/MM/YYYY)	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y	 88 88 8888 99 99 9999	
QC	02	What is your sex? *Register sex/gender or ask in case of doubt*	Male Female Transsexual/transgender Refused	1 2 3 8	
QC	03	In which country were you born? *Tick 001 or write the country in block letters.*	Country of study Another country……..…….. Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	→QC05
QC	04	How long in total have you been living in this country? If you have not been living here continuously, please estimate the total time. *This refers to the country where the study is carried out.*	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/ remember M Don't know/remember Y	 88 88 99 99	
QC	05	Which is your nationality/ies *Write in block letters.*	Nationality 1: ……..…… Nationality 2: ……..…… Refused Don't know/remember *Leave blank for coding:* Nationality 1: /__/__/__/ Nationality 2: /__/__/__/	 888 999	
QC	06	To what ethnic group do you think you belong? *Write in block letters.*	Ethnic group: …….. Refused Don't know/remember *Leave blank for coding: /__/__/*	 88 99	
QC	07	In which country was your mother born? *Tick 001 or write the country in block letters.*	Country of study Another country…..……..……... Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	08	In which country was your father born? *Tick 001 or write the country in block letters.*	Country of study Another country……..…….. Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	09	In which city have you mostly lived during the last 12 months? *Tick 001 or write the country in block letters.*	City of study Another city……..……..……... Refused Don't know/remember *Leave blank for coding: /__/__/__/*	001 002 888 999	
QC	10	How long have you been living there?	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 88 99 99	

QC	11	During the last 12 months, were you living with any of the following persons in the same household? *Read all options to the participant or show the card. Tick all the categories that he/she mentions.*	I didn't lived with anybody: Alone With partner(s) With partner (s) and children With my children only With parents With other relatives With other adults/friends Other, specify ……..……. Refused Don't know/remember	0 1 2 3 4 5 6 7 8 9	
QC	12	During the last 12 months, where did you live most of the time? *Read all options to the participant or show the card. Tick only one.*	In my own (or my spouse's or partner's) house or apartment In my parents' house or apartment In friends' house, flat or apartment In other relatives' house or apartment Hostel/hotel Squat At open scenes (street, park, car,etc.) In a therapeutic institution In prison Other, specify ……..……. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	 →QC14 →QC14
QC	13	How long were you living … (*mention the answer given in the previous question*)?	Number of months /__/__/ Number of years /__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 88 99 99	
QC	14	What is the highest level of school you have successfully completed? *Do not read the options.*	Never went to school/never completed primary school Primary level Low secondary level High secondary level Higher level Refused Don't know/remember	1 2 3 4 5 8 9	→QC16
QC	15	How many years of full-time education have you completed?	Number of years /__/__/ Refused Don't know/remember	 88 99	
QC	16	In the last 12 months, which ones of the following sources of money did you use to live on? *Read all options to the participant or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	Employment (full or part time) Social/government benefits Parents Partner(s) Relatives/friends Sex for money/prostitution Theft, robbing or stealing Street begging Selling drugs Other, specify ……..……. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	

SECTION D: DRUG TREATMENT AND NEEDLE AND SYRINGE PROGRAMMES

Question number		Questions and filters	Categories		Skip to
		Read to the participant: Treatment is an activity that directly targets people who have problems with their drug use and which aims to improve the psychological, medical or social state of individuals who seek help for their drug problems. Those programmes or centres that are exclusively concerned with making syringes available, disseminating information or just providing testing for diagnosing health problems are not considered here as drug treatment programmes or centres.			
QD	01	Have you ever received any treatment intended to modify, reduce or stop your drug use? Please include if you are in treatment now and do not include attempts on your own without professional help.	No Yes Refused Don't know/remember	0 1 8 9	→QD08 →QD08 →QD08
QD	02	How many times were you admitted to drug treatment?	Number of times /__/__/ Refused Don't know/remember	 88 99	
QD	03	When was the first time that you were admitted to drug treatment? Please tell me the month and the year.	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QD	04	When were you last admitted to drug treatment? Please tell me the month and the year.	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QD	05	Are you currently receiving any treatment intended to modify, reduce or stop your drug use?	No Yes Refused Don't know/remember	0 1 8 9	
QD	06	Have you ever received any of the following types of treatment? Please include any treatment you are currently receiving, and do not include attempts on your own without professional help. *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	Drug-free inpatient Drug-free outpatient Opioid substitution inpatient Opioid substitution outpatient Other, specify ….. …. ….. …. …….. Refused Don't know/remember *If he/she has NOT mentioned opioid substitution (either inpatient or outpatient) SKIP TO* → QD08	1 2 3 4 5 8 9 →	 → QD08
QD	07	Regarding opioid substitution treatment, have you been in this type of treatment either in the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks, but in last ……..... . months Before last …… months Refused Don't know/remember	1 2 3 8 9	
QD	08	Have you ever used the services of a needle and syringe programme?	No Yes Refused Don't know/remember	0 1 8 9	→QD10 →QD10 →QD10
QD	09	Have you used the services of a needle and syringe programme in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	

QD	10	Have you ever used a safer injection facility? Include your attendance at these facilities in any country. *If necessary, clarify the term 'safer injection facility'.*	No Yes Refused Don't know/remember	0 1 8 9	→QE01 →QE01 →QE01
QD	11	Have you used a safer injection facility in the last 4 weeks? Include your attendance at these facilities in any country. *If necessary, clarify the 'term safer injection facility'.*	No Yes Refused Don't know/remember	0 1 8 9	

SECTION E: DRUG USE

Question number		Questions and filters	Categories		Skip to
QE	01	Have you used **powder cocaine and heroin mixed** together in the last 12 months? *Note that in this section changes are made to the recall periods of the questions. Some refer to the last 12 months and others to the last 4 weeks. Emphasising these time periods is recommended, to avoid confusion by the participant.*	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	02	Have you used powder cocaine and heroin mixed together in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	03	Have you injected the mixture of powder cocaine and heroin in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE05 →QE05 →QE05
QE	04	How many days in total have you injected it in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	05	Have you used **crack cocaine and heroin mixed** together in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	06	Have you used crack cocaine and heroin mixed together in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	07	Have you injected the mixture of crack cocaine and heroin in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE09 →QE09 →QE09
QE	08	How many days in total have you injected it in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	09	Have you used **heroin alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	10	Have you used heroin alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	11	Have you injected heroin alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE13 →QE13 →QE13
QE	12	How many days in total have you injected heroin alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	13	Have you used **powder cocaine alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17

QE	14	Have you used powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17
QE	15	Have you injected powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE17 →QE17 →QE17
QE	16	How many days in total have you injected powder cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	17	Have you used **crack cocaine alone, without mixing it together with any other drug,** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	18	Have you used crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	19	Have you injected crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE21 →QE21 →QE21
QE	20	How many days in total have you injected crack cocaine alone, without mixing it together with any other drug, in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	21	Have you used **methadone** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	22	Have you used methadone in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	23	Have you injected methadone in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE25 →QE25 →QE25
QE	24	How many days in total have you injected methadone in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	25	Have you used **buprenorphine** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	26	Have you used buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	27	Have you injected buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE29 →QE29 →QE29
QE	28	How many days in total have you injected buprenorphine in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	

QE	29	Have you used **any opioid other than heroin, methadone or buprenorphine** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	30	Have you used any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	31	Have you injected any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE33 →QE33 →QE33
QE	32	How many days in total have you injected any opioid other than heroin, methadone or buprenorphine in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	33	Have you used **amphetamine or methamphetamine** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	34	Have you used amphetamine or methamphetamine in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	35	Have you injected amphetamine or methamphetamine in the last 4 weeks?	No Yes Refused Don't know/remember	0 1 8 9	→QE37 →QE37 →QE37
QE	36	How many days in total have you injected amphetamine or methamphetamine in the last 4 weeks?	Days /__/__/ Refused Don't know/remember	 88 99	
QE	37	Have you used **benzodiazepines** in the last 12 months? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	38	Have you used benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	39	Have you injected benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	No Yes Refused Don't know/remember	0 1 8 9	→QE41 →QE41 →QE41
QE	40	How many days in total have you injected benzodiazepines in the last 4 weeks? Please include also when illegally obtained.	Days /__/__/ Refused Don't know/remember	 88 99	
QE	41	During the last 4 weeks, have you ever injected any drug other than the above mentioned?	No Yes Refused Don't know/remember	0 1 8 9	→QE43 →QE43 →QE43
QE	42	Please tell me which other drugs you have injected in the last 4 weeks. *If in any doubt, write on the right the names given by the respondent and record your comments here:*	Drug 1: ..... Drug 2: ..... Drug 3: ..... Refused Don't know/remember *Leave blank for coding:* Drug 1: /__/__/ Drug 2: /__/__/ Drug 3: /__/__/	 88 99	

QE	43	Which one of the two types of drugs that I will mention to you, have you used more frequently in the last 4 weeks? Please make a general assessment of all the drugs and mixtures that you have used in that period. *The interviewer must have been trained to adequately classify the answers.*	Heroin, methadone, buprenorphine, fentanyl, codeine or other opioids Cocaine, crack, amphetamines, methamphetamines, mephedrone, other mephedrone-like drugs or any other type of stimulants Refused Don't know/remember	1 2 8 9	
QE	44	From of all the following drugs, which was the one that you used first in your life? *Read all categories aloud. Tick one category only. If necessary, explain that this specifically asks for the very first one used, by any route (injected, smoked, snorted or oral).*	Powder cocaine and heroin mixed Crack cocaine and heroin mixed Heroin alone Powder cocaine alone Crack cocaine alone Methadone Buprenorphine Any opioid other than heroin, methadone or buprenorphine Amphetamine or methamphetamine Mephedrone or other similar drugs Benzodiazepines Other, specify ….. …. ….. …. …….. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 11 12 88 99	 →QF01 →QF01
QE	45	How old were you when you first used…. *(name the drug that the participant mentioned in the previous question*)?	Years old /__/__/ Refused Don't know/remember	 88 99	

SECTION F: INJECTING DRUG USE AND SHARING OF INJECTING AND NON-INJECTING EQUIPMENT

Question number		Questions and filters	Categories		Skip to
QF	01	How old were you when you first injected a drug? This includes either self-injection or injection by another person.	Years old /__/__/ Refused Don't know/remember	 88 99	
QF	02	What drug did you inject that first time? *Read all options to the participant or show the card. Tick one category only.*	Powder cocaine and heroin mixed Crack cocaine and heroin mixed Heroin alone Powder cocaine alone Crack cocaine alone Methadone Buprenorphine Any opioid other than heroin, methadone or buprenorphine Amphetamine or methamphetamine Benzodiazepines Other, specify …… ….. .... Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 11 88 99	
QF	03	That first time, did you inject with an used needle or syringe given, lent, rented, or sold to you by someone else?	No Yes Refused Don't know/remember	0 1 8 9	
QF	04	Where were you when you injected for the very first time? *Do not read the options.*	At home, in a private place In a public place, outside In a public place, inside (bar, pub, toilets) In prison In a supervised injection facility Other, specify …….... ..... Refused Don't know/remember	1 2 3 4 5 6 8 9	
QF	05	When did you last inject a drug? *Write the date of the last injection. If it took place more than 4 weeks ago, then register only the month and year.* *If it occurred a long time ago and the participant does not remember the month, register only the year.*	Day /__/__/ Month /__/__/ Year /__/__/__/__/ Refused D Refused M Refused Y Don't know/remember D Don't know/remember M Don't know/remember Y *If participant has not injected in the last 4 weeks, skip to* →	 88 88 8888 99 99 9999 →	 →QF10
QF	06	During the last 4 weeks how many days did you inject?	Number of days/__/__/ Refused Don't know/remember	 88 99	
QF	07	When you injected in the last 4 weeks how many times did you inject on an average day?	Number of injections /__/__/__/ Refused Don't know/remember	 888 999	
QF	08	The last time that you injected, did you use a sterile needle and syringe? I mean a needle/syringe that had never been used before, by you or anyone else.	No Yes Refused Don't know/remember	0 1 8 9	 →QF10

QF	09	For the last needle/syringe that you used and that had not been used by anyone else, how many times did you inject with it before disposing of it? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of times.*	Number of times /__/__/ Refused Don't know/remember	 88 99	
QF	10	Did you ever use **needles or syringes given, lent, rented or sold to you** by someone else, including your partner?	No Yes Refused Don't know/remember	0 1 8 9	→QF16 →QF16 →QF16
QF	11	Please think of the last time that you injected with previously used needles or syringes that were given, lent, rented or sold to you by someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies.*	Within last 4 weeks Not in last 4 weeks but in last ……..... months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF16 →QF16 →QF16 →QF16
QF	12	When you injected in the last 4 weeks, how often did you inject with previously used needles or syringes that were given, lent, rented, or sold to you by someone else, including your partner (already used by somebody else)? *Tick the category that applies.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	13	When you injected with used needles or syringes in the last 4 weeks were they ever from: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A regular sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Someone in the street Family member Other, specify …….. .... Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	14	When you injected with used needles or syringes in the last 4 weeks, were they ever from a person you knew was infected by HIV, HBV or HCV? *Tick all the categories that he/she mentions*	I know that none of the persons I shared with was infected with any of those virus Yes I know somebody was HIV+ Yes I know somebody was HBV+ Yes I know somebody was HCV+ Refused Don't know/remember	0 1 2 3 8 9	
QF	15	From how many people in total (including your partner) did you obtain used needles or syringes in the last 4 weeks? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of persons.*	Number of persons /__/__/ Refused Don't know/remember	 88 99	
QF	16	Have you ever in your life, when you prepared to inject, used a **spoon, cooker, filter/cotton, acid/lemon juice** or rinse water already used by someone else (including your partner)?	No Yes Refused Don't know/remember	0 1 8 9	→QF22 →QF22 →QF22

QF	17	Please think of the last time that you shared the spoon/cooker, filter/cotton, acid/lemon juice or rinse water with someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? By sharing I mean receiving or passing on used materials or using them together with someone else. *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks but in last …..…… months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF22 →QF22 →QF22 →QF22
QF	18	In the last 4 weeks when you prepared to inject, how often did you use a spoon/cooker, filter/cotton, acid/lemon juice or rinse water already used by someone else (including your partner)? *Tick the category that applies*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	19	When you prepared to inject with spoon/cooker, filter/cotton, acid/lemon juice or rinse water in the last 4 weeks were they ever from: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A stable sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Found in the street Family member Other, specify ……..….. Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	20	When you prepared to inject with used spoon/cooker, filter/cotton, acid/lemon juice or rinse water in the last 4 weeks were any of them ever from a person you knew was infected by HIV, HBV or HCV? *Tick all the categories that the participant mentions*	I know that none of the persons I shared with was infected with any of those virus Yes I know somebody was HIV+ Yes I know somebody was HBV+ Yes I know somebody was HCV+ Refused Don't know/remember	0 1 2 3 8 9	
QF	21	From how many different people in total did you get spoon/cooker, filter/cotton, acid/lemon juice or rinse water that had already been used in the last 4 weeks? *Should the participant give a figure of 88 or 99, annotate 87 or 97 as the number of persons.*	Number of persons /__/__/ Refused Don't know/remember	 88 99	
QF	22	Did you ever in your life **give, lend, rent or sell to someone else** (including your partner) a **needle or syringe** you had already used?	No Yes Refused Don't know/remember	0 1 8 9	→QF26 →QF26 →QF26
QF	23	Please think of the last time that you gave, lent, rented or sold a needle or syringe that you had already used to someone else, including your partner. Did this occur within the last 4 weeks, last …… months or before? *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks, but in last …… months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF26 →QF26 →QF26 →QF26

QF	24	When you injected in the last 4 weeks how often did you give, lend, rent or sell to someone else, including your partner, a needle or syringe you had already used? *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	25	When you gave, lent, rent or sold used needles or syringes in the last 4 weeks were they ever to: *Read all options aloud or show the card. Tick all the categories that he/she mentions. Ask if there were any other.*	A stable sex partner A casual sex partner A close friend A dealer Someone in a shooting gallery A fellow prisoner Someone you had never met before Somewhere in the street Family member Other, specify …… Refused Don't know/remember	01 02 03 04 05 06 07 08 09 10 88 99	
QF	26	Did you ever in your life inject drugs using a syringe after it had been filled from somebody else's used syringe? (frontloading/backloading/splitting)	No Yes Refused Don't know/remember	0 1 8 9	→QF29 →QF29 →QF29
QF	27	Please think of the last time that you injected drugs using a syringe after it had been filled from somebody else's used syringe. Did it happen within the last 4 weeks, last …… months or before? (frontloading/backloading/splitting) *Read all options aloud or show the card. Tick the category that applies*.	Within last 4 weeks Not in last 4 weeks, but in last ……..... months Before last …… months Refused Don't know/remember	1 2 3 8 9	 →QF29 →QF29 →QF29 →QF29
QF	28	When you injected in the last 4 weeks, how often did you inject drugs using a syringe after it had been filled from somebody else's used syringe? (frontloading/backloading/splitting) *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QF	29	At any time in your life have you ever received an injection from another person?	No Yes Refused Don't know/remember	0 1 8 9	→QF31 →QF31 →QF31
QF	30	In the last 4 weeks, have you received an injection from another person?	No Yes Refused Don't know/remember	0 1 8 9	
QF	31	In the last 4 weeks, have you used any drug by sniffing, introducing a drug in powder form through your nose?	No Yes Refused Don't know/remember	0 1 8 9	→QF33 →QF33 →QF33
QF	32	In the last 4 weeks, when you sniffed a drug, how often did you use a straw or paper already used by someone else? *Tick the category that applies*.	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	

QF	33	In the last 4 weeks, have you smoked any drug by pipe? *If the participant only smoked tobacco do not record this as a positive answer.*	No Yes Refused Don't know/remember	0 1 8 9	→QG01 →QG01 →QG01
QF	34	In the last 4 weeks when you smoked any drug by pipe, how often did you use a pipe already used by someone else? *Tick the category that applies*. *If the participant only smoked tobacco do not record this as a positive answer.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	

SECTION G: NEW AND CLEAN NEEDLES AND SYRINGES

Question number		Questions and filters	Categories			Skip to
QG	01	In the last 4 weeks, could you easily obtain sterile needles and syringes when you needed them? *Important: Explain that the question is about **unused and wrapped needles and syringes.***	No 0 Yes 1 Did not inject in last 4 weeks 3 Refused 8 Don't know/remember 9			→QH01
QG	02	In the last 4 weeks, from which of the following places did you get your sterile needles and syringes? *Important: Explain that the question is about unused and wrapped needles and syringes. This should be emphasised if the respondent mentions sources such as friends, other IDUs or drug dealers.*	No	Yes	Refused	Don't know/ remember
	02A	Bought from a pharmacy	0	1	8	9
	02B	Bought from other shop	0	1	8	9
	02C	Drug agency needle exchange	0	1	8	9
	02D	Pharmacy needle exchange	0	1	8	9
	02E	Mobile exchange	0	1	8	9
	02F	Outreach worker	0	1	8	9
	02G	Friends	0	1	8	9
	02H	Other drug injector	0	1	8	9
	02I	Stolen from pharmacy, shop or hospital	0	1	8	9
	02J	Drug dealer	0	1	8	9
	02K	Other, specify ……	0	1	8	9
QG	03	From all the above-mentioned sources of sterile needles and syringes, could you tell me which one was your main source in the last 4 weeks? *Important: Stress that the question is about unused and wrapped needles and syringes.*	*Register the question number corresponding to the source mentioned by the participant*/__/__/ Refused 88 Don't know/remember 99			
QG	04	In the last 4 weeks how many new, sterile needles and syringes did you have available in total for your personal use? Please include those from any of the above sources, those received from somebody else and any you already had before. *Important: Stress that the question is about new, unused and wrapped needles and syringes.* *If the participant did not have any sterile needles and syringes, register 000.*	Number of sterile needles/syringes /__/__/__/ Refused 888 Don't know/remember 999 *If the answer is 000* →			→ →QG06
QG	05	In the last 4 weeks how many sterile needles and syringes did you get in total **free of charge** (from any of the above places) A*sk her/him to include only **free of charge** unused and wrapped needles and syringes.* *If the participant did not have any sterile syringes, register 000.*	Number of sterile needles/syringes /__/__/__/ Refused 888 Don't know/remember 999			

QG	06	In the last 4 weeks, could you easily obtain sterile or unused **injecting material other than needles and syringes,** namely **spoon/cooker, filter/cotton, acid/lemon juice or rinse water** when you need it?	No Yes Refused Don't know/remember	0 1 8 9	
QG	07	In the last 4 weeks what did you usually do with the needle or syringe after you had injected with it?	Handed to social services, needle exchange programme or similar Put it in the rubbish bin Left it on the street Other, specify…….. Refused Don't know/remember	1 2 3 4 8 9	
QG	08	Did you ever clean the needles or syringes before re-using them?	No Yes Refused Don't know/remember	0 1 8 9	→QH01 →QH01 →QH01
QG	09	In the last 4 weeks when you used needles or syringes already used by someone else how often did you clean them before you used them? *Tick the category that applies.*	Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 8 9	
QG	10	How did you usually clean them? *Do not read the options out. Tick those that she/he mentions. Ask if there were any other.*	Cold water Warm water Hot water Boiling water Soap or detergent Bleach Alcohol Other, specify…… Refused Don't know/remember	01 02 03 04 05 06 07 08 88 99	

SECTION H: SEXUAL BEHAVIOUR

Question number		Questions and filters	Categories		Skip to
		Read to the participant: I am now going to ask you some questions about your sexual behaviour. People often find it difficult to discuss personal sexual issues, so if you don't feel comfortable about answering a question please say so and we will move on. It is better not to give me an answer than to make one up. When we say sexual intercourse or having sex this includes vaginal or anal intercourse. Vaginal intercourse refers to a man's penis in a woman's vagina, and anal intercourse refers to a man's penis in a partner's anus, either woman or man. Do not include oral sex, which refers to a man's penis or woman's vagina in contact with his/her partner's mouth.			
QH	01	Have you had sexual intercourse (vaginal or anal) in the last 12 months?	No Yes Refused Don't know/remember *If the respondent is **female**, skip → to question →QH03*	0 1 8 9 →	→QI01 →QI01 →QI01 *→QH03*
QH	02	*This question should be asked **only** to **male** respondents:* Have you had anal sex with a male in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QH	03	Have you had a **steady or regular** sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH09 →QH09 →QH09
QH	04	Have you had vaginal or anal intercourse with a steady or regular sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH09 →QH09 →QH09
QH	05	If you had more than one **steady or regular** sex partner in the last 12 months, how many of them did you have? *If he/she had only one, write 01*	Number of regular partners /__/__/ Refused Don't know/remember	 88 99	
QH	06	How often did you and all of your steady/regular partner(s) use a condom during vaginal or anal sex in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** stable/regular partner, ask him/her to make a global assessment of condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH08 →QH08
QH	07	Did you use a condom the last time you had vaginal or anal intercourse with a steady/regular partner? *If the respondent had more than one stable/regular partner the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	08	To your knowledge, have any of the steady/regular partners that you had in last 12 months ever injected drugs?	No Yes Refused Don't know/remember	0 1 8 9	

QH	09	*Read to the participant:* The next questions are about **casual partners**. This means someone you have had sexual relations with other than your steady/regular partner(s). If you had sex in exchange for money or other benefits, please do not include them in your answers about casual partners. Have you had **casual partners** in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH15 →QH15 →QH15
QH	10	Have you had vaginal or anal intercourse with a casual sexual partner in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH15 →QH15 →QH15
QH	11	How many casual partners have you had vaginal or anal intercourse with in the last 12 months?	Number of casual sexual partners /__/__/__/ Refused Don't know remember	 888 999	
QH	12	How often did you and all of your casual partner(s) use a condom during vaginal or anal intercourse in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** stable/regular partner, ask them for a global assessment of their condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH14 →QH14
QH	13	Did you use a condom the last time you had vaginal or anal intercourse with a casual partner? *If the participant had more than one casual partner the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	14	To your knowledge, have any of the casual partners that you had in last 12 months ever injected drugs?	No Yes Refused Don't know/remember	0 1 8 9	
QH	15	*Read to the participant:* The next questions are about **sexual activity with people who gave you money, drugs or other benefits for sex**. By sex I mean vaginal or anal intercourse; please do not include oral sex. During the last 12 months, have you had vaginal or anal sexual intercourse **with people who paid you with money, drugs or other benefits for the sex**?	No Yes Refused Don't know/remember	0 1 8 9	→QH19 →QH19 →QH19
QH	16	With how many partners have you had vaginal or anal intercourse in the last 12 months for which you were paid with money, drugs or other benefits?	Number of clients as sexual partners /__/__/__/__/ Refused Don't know remember	 88 99	
QH	17	How often did you use condoms during vaginal or anal intercourse for which you were paid with money, drugs or other benefits in the last 12 months? *Tick the category that applies.* *If the respondent had **more than one** client, ask them for a global assessment of their condom use with each of them. Category 5, 'Always, on every occasion', involves every time they had intercourse with **all** partners.*	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	1 2 3 4 5 8 9	→QH19 →QH19

QH	18	Did you use a condom the last time you had vaginal or anal intercourse with someone who paid you with money, drugs or other benefits for the sex? *If the respondent had more than one of these partners the question refers to the **most recent time he/she had intercourse**.*	No Yes Refused Don't know/remember	0 1 8 9	
QH	19	*Read to the participant:* The next question is about sexual activity **with people who you paid** with money, drugs or other benefits for sex. By sex I mean vaginal or anal intercourse; please do not include oral sex. Have you had vaginal or anal intercourse with a partner who you paid with money, drugs or other benefits for sex in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QH21 →QH21 →QH21
QH	20	With how many partners have you had vaginal or anal intercourse in the last 12 months for which **you paid with money, drugs or other benefits**?	Number of partner that were paid /__/__/__/__/ Refused Don't know remember	 8888 9999	
QH	21	Please think about the most recent time that you had vaginal or anal intercourse. Did you or your partner use a condom on that occasion? *This refers to any type of partner*	No Yes Refused Don't know remember	0 1 8 9	

SECTION I: PRISON

Question number		Questions and filters	Categories		Skip to
QI	01	*Read to the participant:* The next question is about whether you were ever detained or arrested, regardless of whether you were imprisoned or not. How many times have you been detained or arrested in your lifetime? *If the respondent has never been detained, register 00*	Number of times /__/__/ Refused Don't know/remember *If none (00)* →	 88 99 →	 →QI03 →QI03 →QI03
QI	02	Regardless of whether you were imprisoned or not, how old were you when you were detained or arrested for the first time?	Age /__/__/ Refused Don't know/remember	 88 99	
QI	03	Have you ever been in prison? This includes remands in custody.	No Yes Refused Don't know/remember	0 1 8 9	→QJ01 →QJ01 →QJ01
QI	04	Are you currently in prison? This includes remands in custody.	No Yes Refused Don't know/remember	0 1 8 9	→QJ06 →QJ06 →QJ06
QI	05	Since when?	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QI	06	In total, how many times have you been in prison, including remands in custody? *If the respondent is in prison now, the current time should also be counted.*	Number of times /__/__/ Refused Don't know/remember	 88 99	
QI	07	How old were you when you first went to prison, including remands in custody?	Years Old /__/__/ Refused Don't know/remember	 88 99	
QI	08	How old were you when you last went to prison, including remands in custody?	Years Old /__/__/ Refused Don't know/remember	 88 99	
QI	09	Have you ever injected drugs whilst inside prison or in custody?	No Yes Refused Don't know/remember	0 1 8 9	→QJ01 →QJ01 →QJ01
QI	10	When was the last time you injected inside a prison or whilst in custody?	Month/__/__/ Year/__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QI	11	Was the first time you ever injected in your lifetime whilst you were in prison, including remands in custody?	No Yes Refused Don't know/remember	0 1 8 9	

QI	12	When you injected in prison or whilst in custody, how often was it with needles or syringes and other injecting equipment already used by someone else?	Never, not even once Fewer than half of the occasions Approximately half of the occasions More than half of the occasions Always, on every occasion Refused Don't know/remember	0 1 2 3 4 8 9	

SECTION J: HIV AND HEPATITIS C TESTING

Question number		Questions and filters	Categories		Skip to
QJ	01	Have you ever had an HIV test?	No	0	→QJ06
			Yes	1	
			Refused	8	→QJ06
			Don't know/remember	9	→QJ06
QJ	02	When was the last time you had an HIV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	03	What was the result of your last HIV test?	Negative	0	→QJ06
			Positive	1	
			Indeterminate	2	→QJ06
			Waiting for the results	3	→QJ06
			Refused	8	→QJ06
			Don't know/remember	9	→QJ06
QJ	04	Was that your first positive HIV test?	No	0	
			Yes	1	→QJ06
			Refused	8	
			Don't know/remember	9	
QJ	05	When was your first positive HIV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	06	Have you ever had an HCV test?	No	0	→QK01
			Yes	1	
			Refused	8	→QK01
			Don't know/remember	9	→QK01
QJ	07	When was the last time you had an HCV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	
QJ	08	What was the result of your last HCV test?	Negative	0	→QK01
			Positive	1	
			Indeterminate	2	→QK01
			Waiting for the results	3	→QK01
			Refused	8	→QK01
			Don't know/remember	9	→QK01
QJ	09	Was that your first positive HCV test?	No	0	
			Yes	1	→QK01
			Refused	8	
			Don't know/remember	9	
QJ	10	When was your first positive HCV test?	Month /__/__/		
			Year /__/__/__/__/		
			Refused M	88	
			Refused Y	8888	
			Don't know/remember M	99	
			Don't know/remember Y	9999	

SECTION K: HEALTH CARE

Question number	Questions and filters	Categories	Skip to

Read to the participant:
Now I will ask you a few questions about the health problems that you have had in life, but only about those that you took to the doctor or health services.

QK	01	Have you ever been told by a doctor, nurse, other health professional or counsellor that you had the following: *Please read the list and tick when applicable.*	

		No	Yes	Refused	Don't know/ remember
01a	HIV	0	1	8	9
01b	Hepatitis B	0	1	8	9
01c	Hepatitis C	0	1	8	9
01d	Tuberculosis	0	1	8	9
01e	Endocarditis (heart infections)	0	1	8	9
01f	Pneumonia	0	1	8	9
01g	Cirrhosis of the liver	0	1	8	9
01h	Syphilis	0	1	8	9
01i	Gonorrhoea	0	1	8	9
01j	Genital warts	0	1	8	9
01k	Genital herpes	0	1	8	9
01l	Chlamydia	0	1	8	9
01m	Cancer	0	1	8	9
01n	Abscesses at injection site	0	1	8	9
01o	Abscesses elsewhere on the body	0	1	8	9
01p	Other, specify: ……..	0	1	8	9

If you have never been diagnosed with any of these conditions' →skip to..... →QK03

Medical treatment is defined as having being diagnosed with a disease and being prescribed medicines by a doctor, nurse, other health professional even if the treatment has not been completed.

QK	02	For which of the following have you received medical treatment? I mean, have you received any prescribed medicines by a doctor, nurse or other health professional? *Please read the conditions that the participant mentioned in the previous question, and tick where applicable.*	

		Not received	Received	Refused	Don't know/ remember
02a	HIV	0	1	8	9
02b	Hepatitis B	0	1	8	9
02c	Hepatitis C	0	1	8	9
02d	Tuberculosis	0	1	8	9
02e	Endocarditis (heart infections)	0	1	8	9
02f	Pneumonia	0	1	8	9
02g	Cirrhosis of the liver	0	1	8	9
02h	Syphilis	0	1	8	9
02i	Gonorrhoea	0	1	8	9
02j	Genital warts	0	1	8	9
02k	Genital herpes	0	1	8	9
02l	Chlamydia	0	1	8	9
02m	Cancer	0	1	8	9
02n	Abscesses at injection site	0	1	8	9
02o	Abscesses elsewhere on the body	0	1	8	9
02p	Other, specify: ……..	0	1	8	9

QK	03	*Read to the participant:* The next questions are about **opiate overdose**. I mean an overdose caused by heroin, methadone, or other opioids such as buprenorphine, morphine or codeine that presents generally with the following symptoms: - great difficulty with breathing; - unconsciousness; - frequently, blue lips or blue skin. Have you ever had an overdose with the symptoms mentioned above? *Check with the respondent if the episode is an opiate overdose or any other type of problem. Be aware that cocaine, amphetamine, ecstasy or other stimulants do not have the symptoms mentioned above, but usually involve reddened and hot skin, tachycardia, restlessness and anxiety, and occasionally also convulsions or unconsciousness.*	No Yes Refused Don't know/remember	0 1 8 9	→QK06 →QK06 →QK06
QK	04	In the last 12 months have you had any of those overdoses?	No Yes Refused Don't know/remember	0 1 8 9	→QK06 →QK06 →QK06
QK	05	How many times have you overdosed in the last 12 months? Remember that we are talking about opioid overdoses. *If the participant has never had an opioid overdose register 00.*	Number overdoses /__/__/ Refused Don't know/remember	 88 99	
QK	06	Have you ever received a blood transfusion?	No Yes Refused Don't know/remember	0 1 8 9	→QK08 →QK08 →QK08
QK	07	When did you last receive a blood transfusion?	Month /__/__/ Year /__/__/__/__/ Refused M Refused Y Don't know/remember M Don't know/remember Y	 88 8888 99 9999	
QK	08	Have you been tattooed in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QK	09	During last 12 months, have you ever accidentally punctured yourself with a syringe that had been used by somebody else?	No Yes Refused Don't know/remember	0 1 8 9	
QK	10	Have you had a body-piercing done in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	
QK	11	How would you describe your current health? Would you say it is:	Excellent Good Fair Poor Refused Don't know/remember	1 2 3 4 8 9	

SECTION L: KNOWLEDGE/ATTITUDES

Question number		Questions and filters	Categories		Skip to
QL	01	How many different types of hepatitis have you heard about? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other?'*	Hepatitis A Hepatitis B Hepatitis C Hepatitis D Other, specify: …… Refused Don't know/remember	1 2 3 4 5 8 9	
QL	02	To your knowledge, how are hepatitis B or hepatitis C transmitted? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces any answers that cannot be included in the listed categories.*			

		No	Yes
02a	Sharing needles and/or syringes	0	1
02b	Sharing other drug use equipment	0	1
02c	Having sex (protection not specified)	0	1
02d	Having unprotected sex	0	1
02e	Contact with infected blood	0	1
02f	Contact with other infected body fluids	0	1
02g	Sharing eating/drinking utensils	0	1
02h	Sharing toothbrush, razor	0	1
02i	Infected tattoo/body piercing instruments	0	1
02j	Transfusion of blood or blood products	0	1
02k	Perinatally, from mother to child	0	1
02l	Other, specify:……	0	1
02m	Other, specify:……	0	1

QL	03	Please think now about HIV. How HIV is transmitted? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces those answers that cannot be included in the listed categories.*	

		No	Yes
03a	Sharing needles and/or syringes	0	1
03b	Sharing other drug use equipment	0	1
03c	Having sex (protection not specified)	0	1
03d	Having unprotected sex	0	1
03e	Contact with infected blood	0	1
03f	Contact with other infected body fluids	0	1
03g	Sharing eating/drinking utensils	0	1
03h	Sharing toothbrush, razor	0	1
03i	Infected tattoo/body piercing instruments	0	1
03j	Transfusion of blood or blood products	0	1
03k	Prenatally, from mother to child	0	1
03l	Other, specify:……	0	1
03m	Other, specify:……	0	1

QL	04	From where did you get information about hepatitis and HIV in the last 12 months? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write in the dotted spaces those answers that cannot be included in the listed categories*		

		No	Yes
04a	Doctor/nurse/other health worker	0	1
04b	Press (radio, TV, newspapers)	0	1
04c	Family, friends	0	1
04d	School/work	0	1
04e	Poster/leaflets	0	1
04f	Injecting drug users	0	1
04g	Drug user's organisation	0	1
04h	Outreach workers (social workers)	0	1
04i	Needle exchange programme	0	1
04j	Safer injection facility	0	1
04k	Drug dependence treatment facility	0	1
04l	Other, specify:……	0	1
04m	Other, specify:……	0	1

QL	05	From the sources of information that you have just mentioned, what was the main source?	*Register the question number corresponding to the source mentioned by the participant* /__/__/__/ Refused Don't know/remember	 888 999	
QL	06	During the last 12 months, have you done anything to avoid contracting HIV or hepatitis yourself or to prevent someone getting it from you?	No Yes Refused Don't know/remember	0 1 8 9	→QM01 →QM01 →QM01
QL	07	What have you done during these last 12 months to avoid contracting or passing on these infections? *Do not read out the list. Circle more than one if mentioned. Probe only with 'Any other way?' Write down in the dotted spaces those answers that cannot be included in the listed categories.*			

		No	Yes
	Sex:		
04a	Using condom during **every** intercourse	0	0
04b	Started/increased condom use	0	1
04c	Fewer sexual partners	0	1
04d	Fewer injection drug user partners	0	1
04e	Stopped having sex	0	1
04f	Other, specify:……	0	1
	Drugs:		
04g	Less drug use in general	0	1
04h	Reduced injection of drugs	0	1
04i	Stopped injection of drugs	0	1
04j	Reduced sharing equipment or drug solution	0	1
04k	Stopped sharing equipment or drug solution	0	1
04l	Started/increased cleaning works	0	1
04m	Other, specify:……	0	1

SECTION M: HOMELESSNESS

Question number		Questions and filters	Categories		Skip to
QM	01	Have you ever been homeless, such as living without a steady home, on the streets or temporarily in a hostel or shelter? *If needed, clarify that people living permanently in shelters or special hostels, for example orphans living in state hostels, should not be counted as homeless.*	No Yes Refused Don't know/remember	0 1 8 9	→QN01 →QN01 →QN01
QM	02	How old were you when you first experienced homelessness?	Years old /__/__/ Refused Don't know/remember	 88 99	
QM	03	Have you been homeless any time in the last 12 months?	No Yes Refused Don't know/remember	0 1 8 9	→QN01 →QN01 →QN01
QM	04	How long have you been homeless during the last 12 months?	Days /__/__/ Months /__/__/ Refused D Don't know/remember D Refused M Don't know/remember M	 88 99 88 99	

SECTION N: MOBILITY

Question number		Questions and filters	Categories		Skip to
QN	01	Have you ever obtained drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don´t know/remember	0 1 2 8 9	→QN04 →QN04 →QN04
QN	02	In the last 12 months, have you obtained drugs in a city other than this one?	No Yes, in this country Yes, abroad Refused Don´t know/remember	0 1 2 8 9	→QN04 →QN04 →QN04
QN	03	In which cities, other than this one, have you obtained drugs in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently obtained drugs.* *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently obtained drugs.*	City in this country: …… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don´t know/remember City abroad:…….. *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don´t know/remember	 8 9 8 9	
QN	04	Have you ever injected drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes in this country Yes abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End
QN	05	During last 12 months, have you injected drugs in a city other than this one? *Read the list and tick the applicable options.*	No Yes in this country Yes abroad Refused Don't know/remember	0 1 2 8 9	→QN07 →QN07 →QN07
QN	06	In which cities other than this one have you injected drugs in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently injected drugs.*	City in this country: ..... *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember City abroad: …… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember	 8 9 8 9	
QN	07	Have you ever injected with a syringe or needle that had already been used by somebody else, in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End

QN	08	In the last 12 months, have you injected with a syringe or needle that had already been used by somebody else, in a city other than this one? *Read the list and tick the applicable options.*	No Yes, in this country Yes, abroad Refused Don't know/remember	0 1 2 8 9	→End →End →End
QN	09	In which cities other than this one have you injected with a syringe or needle already used by somebody else in the last 12 months? *Write the city name in the dotted space. If more than one, write down the city where the participant most frequently injected with someone else's syringe.*	City in this country: ..... *Leave blank for coding*: /__/__/__/__/__/__/ Refused Don't know/remember City abroad: .....…… *Leave blank for coding:* /__/__/__/__/__/__/ Refused Don't know/remember	 8 9 8 9	

Full list of items in the questionnaire

SECTION A: INTERVIEW INFORMATION

1. Date of interview
2. Interviewer code
3. Participant code
4. Setting code
5. Survey code
6. Written or oral informed consent
7. Biological sample taken
8. Identification code of biological sample/s

SECTION B: ELIGIBILITY CHECK

1. Ever injected
2. Ever used opioids, cocaine and/or amphetamines in the last 12 months
3. Injected in the last 12 months
4. Injected in the last 4 weeks
5. Interviewed before (for surveys)

SECTION C: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Date of birth
2. Sex
3. Country of birth
4. Time living in the country of the study
5. Nationality
6. Self-reported ethnicity
7. Mother's nationality
8. Father's nationality
9. Current place of residence
10. Duration of living in the current place of residence
11. Current living status (with whom)
12. Current living status (where)
13. Duration of living with them
14. Highest educational level completed
15. Years of full education completed
16. Main source of income in the last 12 months

SECTION D: DRUG TREATMENT AND NEEDLE AND SYRINGE PROGRAMMES (NSP)

1. Ever received drug treatment
2. How many times treated
3. When was the first drug treatment
4. When was the last drug treatment
5. Current drug treatment
6. Types of drug treatment ever received
7. Opioid substitution treatment in last 4 weeks
8. Ever used a NSP
9. Use of a NSP in last 4 weeks
10. Ever used a safer injection facility
11. Use of safer injection facility in last 4 weeks.

SECTION E: DRUG USE

1. Use of powder cocaine and heroin mixed together in last 12 months
2. Use of powder cocaine and heroin mixed together in last 4 weeks
3. Injection of mixture of powder cocaine and heroin in last 4 weeks
4. Number of injections of mixture of powder cocaine and heroin in last 4 weeks
5. Use of crack cocaine and heroin mixed together in last 12 months
6. Use of crack cocaine and heroin mixed together in last 4 weeks
7. Injection of mixture of crack cocaine and heroin in last 4 weeks
8. Number of days injected mixture of crack cocaine and heroin in last 4 weeks
9. Use of heroin alone, without mixing it together with any other drug, in last 12 months
10. Use of heroin alone, without mixing it together with any other drug, in last 4 weeks
11. Injection of heroin alone, without mixing it together with any other drug, in last 4 weeks
12. Number of days injected heroin alone, without mixing it together with any other drug, in last 4 weeks
13. Use of powder cocaine alone, without mixing it together with any other drug, in last 12 months
14. Use of powder cocaine alone, without mixing it together with any other drug, in last 4 weeks
15. Injection of powder cocaine alone, without mixing it together with any other drug, in last 4 weeks

16. Number of days injected powder cocaine alone, without mixing it together with any other drug, in last 4 weeks
17. Use of crack cocaine alone, without mixing it together with any other drug, in last 12 months
18. Use of crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
19. Injection of crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
20. Number of days injected crack cocaine alone, without mixing it together with any other drug, in last 4 weeks
21. Use of methadone in last 12 months (including illegally obtained)
22. Use of methadone in last 4 weeks (including illegally obtained)
23. Injection of methadone in last 4 weeks (including illegally obtained)
24. Number of days injected methadone in last 4 weeks (including illegally obtained)
25. Use of buprenorphine in last 12 months (including illegally obtained)
26. Use of buprenorphine in last 4 weeks (including illegally obtained)
27. Injection of buprenorphine in last 4 weeks (including illegally obtained)
28. Number of days injected buprenorphine in last 4 weeks (including illegally obtained)
29. Use of any opioid other than heroin, methadone or buprenorphine in last 12 months
30. Use of any opioid other than heroin, methadone or buprenorphine in last 4 weeks
31. Injection of any opioid other than heroin, methadone or buprenorphine in last 4 weeks
32. Number of days injected any opioid other than heroin, methadone or buprenorphine in last 4 weeks
33. Use of amphetamine or methamphetamine in last 12 months
34. Use of amphetamine or methamphetamine in last 4 weeks
35. Injection of amphetamine or methamphetamine in last 4 weeks
36. Number of days injected amphetamine or methamphetamine in last 4 weeks
37. Use of benzodiazepines in last 12 months (including illegally obtained)
38. Use of benzodiazepines in last 4 weeks (including illegally obtained)
39. Injection of benzodiazepines in last 4 weeks (including illegally obtained)
40. Number of days injected benzodiazepines in last 4 weeks (including illegally obtained)
41. Injection of any other drug (other than above) in last 4 weeks
42. Name of other drugs injected (3 categories)
43. Type of drug most frequently used ('heroin, methadone, buprenorphine, fentanyl, codeine or other opioids' or 'cocaine, crack, amphetamines, methamphetamines, mephedrone, other mephedrone-like drugs or any other type of stimulants')
44. First drug used in lifetime (listed)
45. Age at first use

SECTION F: INJECTING DRUG USE AND SHARING OF INJECTING AND NON-INJECTING EQUIPMENT

1. Age at first injection of drugs
2. Drug of first injection
3. Injection with a used syringe/needle at that first time
4. Place of first injection
5. Last time of injection (day/month/year)
6. Number of days of injection in last 4 weeks
7. Number of injections on an average day (when injected)
8. Use of an sterile needle and syringe on last injection (no reuse)
9. Number of injections with the last needle or syringe before disposing or lending
10. Ever use of used needles or syringes given, lent, rented or sold by somebody else
11. Last time use of needles or syringes given, lent, rented or sold (already used by somebody else)
12. Frequency of use of needles or syringes given, lent, rented or sold in last 4 weeks (already used by somebody else)
13. Type of person from whom the syringes were obtained in last 4 weeks
14. Obtaining used syringes from a person known to be HCV, HIV or HBV positive in last 4 weeks
15. Number of persons from whom used needles or syringes were obtained in last 4 weeks
16. Ever use of spoon, cooker, filter or rinsing water already used by somebody else
17. Last use of spoon/cooker, filter/cotton, acid/lemon or rinsing water (already used by somebody else)
18. Frequency of use of spoon/cooker, filter/cotton, acid/lemon or rinsing water in last 4 weeks (already used by somebody else)
19. Type of person from whom spoon/cooker, filter/cotton, acid/lemon or rinsing water was taken in last 4 weeks (already used by somebody else)
20. Taking used spoon/cooker, filter/cotton, acid/lemon or rinsing water in last 4 weeks from a person known to be HIV, HBV or HCV positive
21. Number of persons from whom used spoon/cooker, filter/cotton, acid/lemon or rinsing water was taken in last 4 weeks
22. Ever giving, lending, renting or selling to someone (including partner) a used needle or syringe

23. Last time giving, lending, renting or selling to someone (including partner) a used needle or syringe
24. Frequency of giving, lending, renting or selling to someone (including partner) a used needle or syringe in last 4 weeks
25. Type of person to whom gave, lent, rented or sold a used needle or syringe in last 4 weeks
26. Ever use of a syringe after it had been filled from somebody else's used syringe (frontloading/backloading/splitting)
27. Last time of frontloading/backloading/splitting
28. Frequency of frontloading/backloading/splitting
29. Ever receiving an injection from another person
30. Receiving an injection from another person in last 4 weeks
31. Sniffing a drug in last 4 weeks
32. Frequency of use of a straw already used by somebody in last 4 weeks
33. Smoking in pipe in last 4 weeks
34. Frequency of smoking in pipe in last 4 weeks.

SECTION G: NEW AND CLEAN NEEDLES AND SYRINGES

1. Availability of sterile needles/syringes in last 4 weeks
2. Places of acquisition of sterile syringes and syringes:

2a. Bought from a pharmacy
2b. Bought from other shop
2c. Drug agency needle exchange
2d. Pharmacy needle exchange
2e. Mobile exchange
2f. Outreach worker
2g. Friends
2h. Other drug injector
2i. Stolen from pharmacy, shop or hospital
2j. Drug dealer
2k. Other

3. Main source of sterile syringes and needles
4. Number of sterile syringes and needles obtained in last 4 weeks
5. Number of sterile syringes and needles free of charge obtained in last 4 weeks
6. Availability of sterile or unused injecting material other than needles and syringes in last 4 weeks
7. Choices of disposing of needles and syringes
8. Ever cleaning needles and syringes before reusing them
9. Frequency of cleaning needles and syringes before reusing them in last 4 weeks
10. Way of cleaning used needles

SECTION H: SEXUAL BEHAVIOUR

1. Sexual intercourse in last 12 months
2. Anal sex with a male in the last 12 months (only for men)
3. Steady or regular sexual partner in last 12 months
4. Vaginal or anal intercourse with a steady or regular sexual partner in last 12 months
5. Number of steady or regular sexual partners in last 12 months (if more than one)
6. Frequency of condom use with steady or regular sexual partner in last 12 months
7. Use of condom for the last vaginal or anal intercourse with steady sexual partner
8. Any steady sexual partner(s) in last 12 months who ever injected drugs
9. Any casual sexual partner in last 12 months
10. Vaginal or anal intercourse with a casual partner in last 12 months
11. Number of casual partners in last 12 months
12. Frequency of condom use with casual partner in last 12 months
13. Use of condom for the last vaginal or anal intercourse with a casual sexual partner
14. Any casual partner(s) in last 12 months who ever injected drugs
15. Received money, drugs or other benefits in exchange for vaginal or anal intercourse in last 12 months
16. Number of sexual partner in last 12 months from whom received money, drugs or other benefits in exchange
17. Frequency of condom use with sexual partners from whom received money, drugs or other benefits in exchange, in last 12 months
18. Use of condom for the last vaginal or anal intercourse with partners from whom received money, drugs or other benefits in exchange
19. Vaginal or anal intercourse with partner to whom money was given in exchange for sex in last 12 months
20. Number of partners to whom money was given in exchange for sex in last 12 months
21. Use of condom in the most recent vaginal or sexual intercourse (any type of partner)

SECTION I: PRISON

1. Number of times arrested or detained in lifetime
2. Age at first arrest
3. Ever in prison (including remands in custody)
4. Currently in prison (including remands in custody)
5. Since when in prison
6. Number of times in prison (including remands in custody)
7. Age at first time in prison
8. Age at last time in prison
9. Ever drug injection while in prison
10. When was last drug injection while in prison
11. Was the above the first drug injection in lifetime
12. Frequency of injection in prison with needles, syringes or other equipment already used by others

SECTION J: HIV AND HEPATITIS TESTING

1. Ever had HIV test
2. When was last HIV test
3. Results of last HIV test
4. Was the above the first positive HIV test
5. When was the first positive HIV test
6. Ever had HCV test
7. When was last HCV test
8. Results of last HCV test
9. Was the above the first positive HCV test
10. When was the first positive HCV test

SECTION K: HEALTH CARE

1. Diseases participant has been diagnosed with
2. Diseases ever treated
3. Ever opioid overdose
4. Opioid overdose in last 12 months
5. Number of opioid overdoses in last 12 months
6. Ever had blood transfusion
7. When last blood transfusion
8. Been tattooed in last 12 months
9. Ever accidentally punctured self with somebody's used syringe
10. Body-piercing in last 12 months
11. Perceived health status

SECTION L: KNOWLEDGE/ATTITUDES

1. Types of hepatitis that participant knows of
2. Modes of HBV or HCV transmission
3. Modes of HIV transmission
4. Sources of information on hepatitis and HIV in last 12 months
5. Main source of information
6. Use of preventive measures to avoid HIV or hepatitis in last in last 12 months
7. Type of preventive measures used to avoid HIV or hepatitis in last 12 months

SECTION M: HOMELESSNESS

1. Ever homeless
2. Age at first time homelessness
3. Homeless in last 12 months
4. How long homeless in last 12 months (days/months)

SECTION N: MOBILITY

1. Ever obtained drugs in another city
2. Obtained drug in another city in last 12 months
3. Which cities others than the study one where participant obtained drugs in last 12 months
4. Ever injected in another city
5. Injected in another city in last 12 months
6. Which cities others than the study one where participant injected during last 12 months.
7. Ever injected with a used syringe or needle in another city
8. Injected with a used syringe or needle in another city in last 12 months
9. Which cities others that the study one where participant used syringe or needle in last 12 months

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Abbreviations

CIBERESP	Consortium for Biomedical Research in Epidemiology and Public Health, Spain
DRID	drug related infectious diseases
ECDC	European Centre for Disease Prevention and Control
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EQ	Example Questionnaire [Example questionnaire for bio-behavioural surveys in people who inject drugs]
FHI	Family Health International
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
ISCIII	Instituto de Salud “Carlos III” [“Carlos III” Health Institute], Spain
IDUs	people who inject drugs [injecting drug users]
OPS/OMS	Organización Panamericana de la Salud/Organización Mundial de la Salud (Pan American Health Organization/World Health Organization)
PAHO	Pan American Health Organization
PDU	problem drug user
Reitox	Réseau Européen d’Information sur les drogues et les Toxicomanies (European Information Network on Drugs and Drug Addiction)
ST9	Standard Table 9
UMHRI	University Mental Health Research Institute, Greece
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization