



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**

01/12/2013

**EMCDDA Drug Related Infectious Diseases
(DRID) Monitoring Guidance Toolkit**

Contents

Preface	3
Authors and acknowledgments	4
1. Background and objective.....	5
2. Overview of the behavioural indicators.....	8
2.1 Core indicators	8
2.2 Additional indicators	9
2.3 Optional indicators.....	10
3. Methodological notes.....	12
4. Detailed listing of the indicators by thematic section	15
4.1 Sharing needles/syringes	15
4.2 Sharing other paraphernalia.....	17
4.3 HIV testing	18
4.4 HCV testing	20
4.5 Needle/syringe at last injection.....	22
4.6 Repeated use of needles/syringes	23
4.7 Injecting frequency	24
4.8 Number of sharing partners.....	26
4.9 Sex work.....	27
4.10 Male-to-male sex	28
4.11 Condom use	29
4.12 Number of sexual partners	32
4.13 Availability of needles/syringes	33
4.14 Opioid substitution therapy.....	35
4.15 Age	37
4.16 Sex/gender	38
4.17 Years injecting.....	39
4.18 Primary drug	41
4.19 Prison	42
4.20 Country of birth.....	43
4.21 Homelessness.....	43
References	45
Abbreviations.....	49
Table 1. Epidemiological indicators in Standard Table 9 (ST9)	7
Table 2. Core and Additional behavioural indicators in ST9 part 3.....	11
Annex 1. Optional behavioural indicators in ST9 part 3	50
Annex 2. Main changes in the DRID Guidance Module in comparison to the 2006 pilot version of ST9 part 3	51
Annex 3. Behavioural information in the other parts of ST9.....	62
Annex 4. Behavioural information in other areas of EMCDDA monitoring	64

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

This module was written by Lucas Wiessing (EMCDDA) and María José Bravo (ISCIH-CIBERESP).

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 Dalmiş, 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 Peschanski, 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 Eritsyana, Kuulo Kutsar, Leonie Prasad, Lillebil Nordén, Lucian Suditu, M^{re} 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, 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 Drymoussi, Georgia B. Nikolopoulou, Maria Hadjivassiliou, Irene Vafiadi-Zoubouli, Viktor Mravcik, Maria Jose Bravo, Anneke Krol, Lubomir Okruhlica, Vivian Hope and Françoise Dubois-Arber.

* Member of the DRID Protocol Advisory Group

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 notification 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)

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

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	15
		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	17
	TESTING	C3 % ever-IDUs, excluding known HIV-positives, who received an HIV test in the last 12 months	QB01, QJ02, QJ03	4.3	18
		C4 % ever-IDUs, excluding known HCV-infected, who received an HCV test in the last 12 months	QB01, QJ07	4.4	20
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	22
		A2 % current IDUs injecting once per day or more in the last 4 weeks	QF05, QF06, QF07	4.7	24
	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	27
		A4 % ever-IDUs who report the use of a condom at last sexual intercourse	QB01, QH01, QH21	4.11	29
		A5 % ever-IDUs who report sexual intercourse with more than one partner in the last 12 months	QB01, QH05, QH11, QH16, QH20	4.12	32
	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	33
		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	35
	SOCIODEMOGRAPHIC	A8 % ever-IDUs under age 25	QA01, QB01, QC01	4.15	37
		A9 % females among ever-IDUs	QB01, QC02	4.16	38
		A10 % ever-IDUs with less than 2 years since their first injection	QA01, QB01, QC01, QF01	4.17	39
		A11 % ever-IDUs who report an opioid as their primary drug in the last 4 weeks	QB01, QE43	4.18	41
		A12 % ever-IDUs who report having ever been in prison	QB01, QI03	4.19	42
		A13 % ever-IDUs born outside the country of study	QB01, QC03	4.20	43
		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	43

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 test⁵. 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 sharing⁹), 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 researchers' 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 used¹⁵. 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

References

- Allen, D. R., Finlayson, T., Abdul-Quader, A. and Lansky, A. (2009), 'The role of formative research in the National HIV Behavioral Surveillance System', *Public Health Reports* 124, pp. 26–33.
- Bravo, M. J., Royuela, L., Barrio, G., Rodriguez-Arenas, M. A. and de la Fuente, L., (2004), [Prevalence of indirect sharing of drug-injecting paraphernalia in Galicia, Madrid, Seville and Valencia (Spain)], [in Spanish], *Gac Sanit.* 18, pp. 472–478.
- Czech NFP (Czech National Focal Point) (2003), 'Questionnaires of seroincidence and seroprevalence studies of hepatitis C among injection drug users', Czech NFP, Prague.
- Des Jarlais, D., Perlis, T. E., Stimson, G. V. and Poznyak, V. (2006), 'Using standardized methods for research on HIV and injecting drug use in developing/transitional countries: Case study from the WHO Drug Injection Study Phase II', *BMC Public Health* 6, p. 54.
- Dubois-Arber, F., Jeannin, A., Spencer, B., Hope, V., Elford, J., Lert, F., Ward, H., Haour-Knipe, M. and Gervasoni, J. P. (2011), 'Behavioural and second generation surveillance regarding HIV and STI', University Institute of Social and Preventive Medicine, document presented at the ECDC meeting, Lausanne.
- EMCDDA (European Monitoring Centre for Drugs and Drug Addiction) (2000a), *Draft guidelines for developing the key indicator: Infectious diseases in injecting drug users*, EMCDDA, Lisbon.
- EMCDDA (2000b), *Feasibility study on the implementation of longitudinal studies on changing patterns of use, health risks, careers and needs in young problem drug users (YPDUs)*, EMCDDA, Lisbon.
- EMCDDA (2006), 'Protocol for the implementation of the EMCDDA key indicator drug related infectious diseases (DRID)', draft version 6 October 2006, EMCDDA, Lisbon (www.emcdda.europa.eu/themes/key-indicators).
- EMCDDA (2011), *Report of the EMCDDA expert consultation on the revision of behavioural variables in Standard Table 9 part 3*, EMCDDA, Lisbon.
- EMCDDA (2012a), *EMCDDA Annual report series*, EMCDDA, Lisbon (www.emcdda.europa.eu/publications/searchresults?action=list&type=publications&series_pub=w36).
- EMCDDA (2012b), *Treatment demand indicator (TDI) standard protocol 3.0: Guidelines for reporting data on people entering drug treatment in European countries*, EMCDDA Manuals, Lisbon (www.emcdda.europa.eu/publications/manuals/tdi-protocol-3.0).
- EMCDDA (2013), 'Example questionnaire for bio-behavioural surveys in people who inject drugs: DRID guidance module, version 2.0', EMCDDA, Lisbon.
- ECDC (European Centre for Disease Prevention and Control) (2009), *Technical report: Mapping of HIV/STI behavioural surveillance in Europe*, ECDC, Stockholm.
- ECDC (2010), *Implementing the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2010 progress report*, ECDC, Stockholm.

FHI (Family Health International) (2000), *Behavioral surveillance surveys: Guidelines for repeated behavioural surveys in population at risk of HIV*, FHI, Arlington.

Gallagher, K. M., Sullivan, P. S., Lansky, A. and Onorato, I. M. (2007), 'Behavioral surveillance among people at risk for HIV infection in the US: The National HIV Behavioral Surveillance System', *Public Health Reports* 122(Suppl. 1), pp. 32–38.

Hagan, H., Campbell, J., Thiede, H., Strathdee, S., Ouellet, L., Kapadia, F., Hudson, S. and Garfein, R. S. (2006), 'Self-reported hepatitis C virus antibody status and risk behavior in young injectors', *Public Health Reports* 121, pp. 710–719.

Hagan, H., Pouget, E. R., Williams, I. T., Garfein, R. L., Strathdee, S. A., Hudson, S. M., Latka, M. H. and Ouellet, L. J. (2010), 'Attribution of hepatitis C virus seroconversion risk in young injection drug users in 5 US cities', *Journal of Infectious Diseases* 201, pp. 378–385.

Hope, V. D., Hickman, M., Ngui, S. L., Jones, S., Telfer, M., Bizzarri, M., Ncube, F. and Parry, J. V. (2011a), 'Measuring the incidence, prevalence and genetic relatedness of hepatitis C infections among a community recruited sample of injecting drug users, using dried blood spots', *Journal of Viral Hepatitis* 18, pp. 262–270.

Hope, V., Jeannin, A., Spencer, B., Gervasoni, J.P., van de Laar, M.J., Dubois-Arber, F. and ECDC HIV and STI Behavioural Surveillance Mapping Group (2011b), 'Mapping HIV-related behavioural surveillance among injecting drug users in Europe, 2008', *Euro Surveillance* 16(36), pii=19960 (www.eurosurveillance.org/viewarticle.aspx?articleid=19960).

HPA (Health Protection Agency, UK) (2003), 'Revised and updated June 2003 questionnaire for the collaborative unlinked anonymous survey of antibodies to HIV, and hepatitis in injecting drug users', HPA, London.

ISCIII (Instituto de Salud 'Carlos III' [Health Institute 'Carlos III']) National Center of Epidemiology (2001), 'ITINERE questionnaires for cohorts of heroin users, and cocaine users', ISCIII, Madrid.

Iversen, J., Topp, L., Wand, H. and Maher, L. (2011), 'Individual-level syringe coverage among needle and syringe program attendees in Australia', *Drug and Alcohol Dependence*, doi:10.1016/j.drugalcdep.2011.09.030.

Lansky, A., Abdul-Quader, A. S., Cribbin, M., Hall, T., Finlayson, T. J., Garfein, R. S., Lin, L. S. and Sullivan, P. S. (2007), 'Developing an HIV behavioral surveillance system for injecting drug users: the National HIV Behavioral Surveillance System', *Public Health Reports* 122(Suppl. 1), pp. 48–55.

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 estudio, 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-de-comportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-p-codar&lang=en).

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-de

comportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-p-codar&lang=en).

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-de-comportamiento-en-consumidores-de-drogas-con-alto-riesgo-codar&catid=1090%3afchhiv-p-codar&lang=en).

Pharris, A., Wiessing, L., Sfetcu, O., Hedrich, D., Botescu, A., Fotiou, A., Nikolopoulos, G. K., Malliori, M., Salminen, M., Suk, J. E., Griffiths, P. and van de Laar, M. J. (2011), 'Human immunodeficiency virus in injecting drug users in Europe following a reported increase of cases in Greece and Romania, 2011', *Euro Surveillance*, 16(48), pii=20032 (www.eurosurveillance.org/viewarticle.aspx?articleid=20032).

Reintjes, R. and Wiessing, L. (2007), '2nd-generation HIV surveillance and injecting drug use: Uncovering the epidemiological ice-berg', *International Journal of Public Health* 52(3), pp. 166–172.

RIVM (National Institute for Public Health and the Environment, Bilthoven) (2002), 'Questionnaire for HIV survey of injecting drug users in the Netherlands: Study Rotterdam 2002', RIVM, The Netherlands.

Schlichting, E. G., Johnson, M. E., Brems, C., Wells, R. S., Fisher, D. G. and Reynolds, G., (2003), 'Validity of injecting drug users' self report of hepatitis A, B, and C', *Clinical Laboratory Science* 16, pp. 99–106.

SCIEH (Scottish Centre for Infection and Environmental Health) (1999), 'West Glasgow Hospitals, University of Glasgow: HCV infection questionnaire', SCIEH, Glasgow.

Stimson, G. V., Jones, S., Chalmers, C. and Sullivan, D. (1998), 'A short questionnaire (IRQ) to asses injecting risk behaviour', *Addiction* 93, pp. 337–347.

Thorpe, L. E., Ouellet, L. J., Hershov, R., Bailey, S. L., Williams, I. T., Williamson, J., Monterroso, E. R. and Garfein, R. S. (2002), 'Risk of hepatitis C virus infection among young adult injection drug users who share injection equipment', *American Journal of Epidemiology* 155, pp. 645–653.

UNAIDS (Joint United Nations Programme on HIV/AIDS) (2009), *Guidelines on construction of core indicators: Monitoring the Declaration on Commitment on HIV/AIDS — 2010 reporting*, UNAIDS, Geneva.

UNAIDS (2011), 'Global AIDS progress reporting 2012: Monitoring the 2011 Political Declaration on HIV/AIDS — Update for WCA 5 October 2011', PowerPoint presentation, RMA, UNAIDS, Geneva (www.unaids.org/AIDSReporting).

UNAIDS, WHO and Others (2000), *National AIDS programmes: A guide to monitoring and evaluation*, UNAIDS, Geneva.

WHO (World Health Organization) (2000), *Drug injecting study questionnaire: Phase II, version 2^a*, WHO, Geneva.

WHO and UNAIDS (2000), *Guidelines for second generation HIV surveillance: The next decade*, WHO and UNAIDS, Geneva.

WHO and UNAIDS (2002), *Initiating second generation surveillance systems: Practical guidelines*, WHO, Geneva.

WHO, UNODC (United Nations Office on Drugs and Crime) and UNAIDS (2009), *Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users*, WHO, Geneva.

Wiessing, L. and Nardone, A. (2006), 'Ongoing HIV and viral hepatitis infections in IDUs across the EU, 2001–2005' *Euro Surveillance* 11(47), pii=3084 (www.eurosurveillance.org/viewarticle.aspx?articleid=3084).

Wiessing, L., Ncube, F., Hedrich, D., Griffiths, P., Hope, V., Gill, N., Hamers, F. F., de la Fuente, L., Klavs, I., Leinikki, P., Blystad, H., Meheus, A., Rezza, G., Stimson, G. and Goldberg, D. (2004), 'Surveillance of infectious diseases in IDUs across the EU: Information from the EU expert network', *Euro Surveillance* 8(4), pii=2368 (www.eurosurveillance.org/ViewArticle.aspx?ArticleId=2368).

Wiessing, L., Guarita, B., Giraudon, I., Brummer-Korvenkontio, H., Salminen, M. and Cowan, S. A. (2008a). 'European monitoring of notifications of hepatitis C virus infection in the general population and among injecting drug users (IDUs): The need to improve quality and comparability', *Euro Surveillance* 13(21), pii=18884 (www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18884).

Wiessing, L., van de Laar, M. J., Donoghoe, M. C., Guarita, B., Klempová, D. and Griffiths, P. (2008b), 'HIV among injecting drug users in Europe: Increasing trends in the East', *Euro Surveillance* 13(50), pii=19067 (www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19067).

Wiessing, L., Likatavicius, G., Hedrich, D., Guarita, B., van de Laar, M. J. and Vicente, J. (2011), 'Trends in HIV and hepatitis C virus infections among injecting drug users in Europe, 2005 to 2010', *Euro Surveillance*, 16(48), pii=20031 (www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20031).

Abbreviations

- CDC** — Centers for Disease Control and Prevention
- CIBERESP** — Consortium for Biomedical Research in Epidemiology and Public Health
- 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
- ISCIH** — Instituto de Salud ‘Carlos III’ [Health Institute ‘Carlos III’]
- 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** — sexually transmitted infections
- 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	15
		O2 % current IDUs passing on used needles/syringes to others in the last 4 weeks	QF05, QF23	4.1	15
	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	18
		O4 % ever-IDUs who have ever been tested for HIV	QB01, QJ01	4.3	18
		O5 % ever-IDUs who have ever been tested for HCV	QB01, QJ06	4.4	20
	INJECTING RISK	O6 % current IDUs who report using their last needle or syringe more than once	QF05, QF08, QF09	4.6	23
		O7 Mean and median number of times current IDUs report using their last needle or syringe	QF05, QF08, QF09	4.6	23
		O8 Mean and median number of injections in the last 4 weeks, among current IDUs	QF05, QF06, QF07	4.7	24
		O9 % current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks	QF05, QF15	4.8	26
		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	26
	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	27
		O12 % male ever-IDUs who report anal sex with a male partner in the last 12 months	QB01, QC02, QH02	4.10	28
		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	29
		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	29
		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	29
		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	32
	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	33
	SOCIO-DEMOGRAPHIC	O18 Mean and median age of ever-IDUs	QA01, QB01, QC01	4.15	37
		O19 Mean and median age of new IDUs among all ever-IDUs	QA01, QB01, QC01, QF01	4.15	37
		O20 % ever-IDUs with less than 5 years since their first injection	QA01, QB01, QC01, QF01	4.17	39
		O21 Mean and median number of years since first injection among ever-IDUs	QA01, QB01, QC01, QF01	4.17	39
		O22 % ever-IDUs who report having ever injected in prison.	QB01, QI09	4.19	42

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: <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs under age 25. ○ Denominator: All ever-IDUs in the study. 	Yes	Yes	Changes: <ul style="list-style-type: none"> ○ Definition: Yes ○ Reference period: Does not apply ○ Format: Yes, from mean to percentage Comparable: No
		O18	Mean and median age of ever-IDUs Definition: <ul style="list-style-type: none"> ○ Mean and median age in years of all ever-IDUs. 	No	No	Changes: <ul style="list-style-type: none"> ○ Definition: No ○ Reference period: Does not apply ○ 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: <ul style="list-style-type: none"> ○ 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: <ul style="list-style-type: none"> ○ Definition: No ○ Reference period: Does not apply ○ 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: <ul style="list-style-type: none"> ○ Numerator: Female ever-IDUs. ○ Denominator: All ever-IDUs in the sample. 	No	Yes	Changes: <ul style="list-style-type: none"> ○ Definition: Minor changes ○ Reference period: No ○ Format: No Comparable: Yes

1.4.2	<p>Sharing needles/syringes (includes both lending and borrowing as well as otherwise using a needle/syringe already used by someone else, even if cleaned)</p> <p>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</p>	C1	<p>% current IDUs sharing used needles/syringes in the last 4 weeks (receiving or passing on)</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Minor changes Reference period: No ○ Format: No <p>Comparable: Yes</p>
1.4.4	<p>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.)</p> <p>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.</p>	C2	<p>% current IDUs sharing any used injecting paraphernalia in the last 4 weeks other than needles/syringes (using together, receiving or passing on)</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, pilot version included needles/syringes, these have been taken out, and other changes in wording ○ Reference period: No ○ Format: No <p>Comparable: No ⁽¹⁶⁾</p>

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: <ul style="list-style-type: none"> ○ 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. 	No	Yes	Changes: <ul style="list-style-type: none"> ○ 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 ○ Reference period: No ○ 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: <ul style="list-style-type: none"> ○ 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. 	No	Yes	Changes: <ul style="list-style-type: none"> ○ Definition: Yes, cases with known positive status are now excluded. If this is not possible data can still be provided indicating this. ○ Reference period: No ○ 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: <ul style="list-style-type: none"> ○ 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. 	No	Yes	Changes: <ul style="list-style-type: none"> ○ Definition: Yes, excludes cases with a known chronic infection or self-reported antibody positive. ○ Reference period: No ○ 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	<p>Injecting frequency (How many times did the user (ever-IDUs) inject in the last 4 weeks?)</p> <p>Data requested</p> <p>23 - Number of ever-IDUs with a valid answer for injecting frequency.</p> <p>24 - Proportion not injecting in the last 4 weeks.</p> <p>25 - Proportion injecting once a week or less.</p> <p>26 - Proportion injecting 2–6 times per week.</p> <p>27 - Proportion injecting daily.</p> <p>28 - Proportion injecting several times a day.</p> <p>29 - Mean times injected in the last 4 weeks.</p>	A2	<p>% current IDUs injecting once per day or more, in the last 4 weeks</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes ○ Reference period: No ○ Format: Yes <ul style="list-style-type: none"> – 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 <p>Comparable: No</p> <p>Note: could attempt to make comparable by recalculating (adding two categories together, leaving out non-injectors)</p>
		O8	<p>Mean and median number of injections in the last 4 weeks, among current IDUs</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes ○ Reference period: No ○ Format: Yes <ul style="list-style-type: none"> – Original zero category has been dropped by changing to current IDUs, this results in a different mean – Mean number of injections moved to Optional <p>Comparable: Yes, if recalculated (taking out those not injecting in the last 4 weeks)</p>

1.5.3	<p>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?)</p> <p>Data requested</p> <p>30 - Number of current IDUs with a valid answer for personal reuse of needles/syringes.</p> <p>31 - Mean times of safe reuse per needle/syringe.</p>	O6	<p>% current IDUs who report using their last needle or syringe more than once</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, from 'reuse' to 'use' and minor changes in wording. ○ Reference period: No ○ Format: From mean to percentage <p>Comparable: No</p>
		O7	<p>Mean and median number of times current IDUs report using their last needle or syringe</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, from 'reuse' to 'use' and minor changes in wording ○ Reference period: No ○ Format: No, median added <p>Comparable: No</p> <p>Note: could attempt to make comparable by recalculating (use = reuse + 1)</p>
1.5.5	<p>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.)</p> <p>Data requested</p> <p>32 - Number of current IDUs with a valid answer for different sharing partners.</p> <p>33 - Proportion receiving needles/syringes from 2 or more people.</p>	O9	<p>% current IDUs receiving and injecting with used needles/syringes from 3 or more people, in the last 4 weeks</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, from '2 or more' to '3 or more', also minor changes in wording ○ Reference period: No ○ Format: No <p>Comparable: No</p>

	34 - Mean number of sharing partners in the last 4 weeks.	O10	<p>Mean and median number of sharing partners among current IDUs, in the last 4 weeks (including those with zero partners)</p> <p>Definition:</p> <ul style="list-style-type: none"> 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	<p>Changes:</p> <ul style="list-style-type: none"> 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 <p>Comparable: No</p> <p>Note: Due to lack of an accurate definition in the pilot version the comparability is uncertain</p>
1.5.7	<p>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?)</p> <p>Data requested</p> <p>35 - Number of ever-IDUs doing sex work in the last 4 weeks.</p> <p>36 - Number of IDUs with a valid answer for sex work.</p> <p>37 - Proportion IDUs reporting sex work in the last 4 weeks.</p>	A3	<p>% ever-IDUs who received money, drugs or other benefits in exchange for sex in the last 12 months</p> <p>Definition:</p> <ul style="list-style-type: none"> 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	<p>Changes:</p> <ul style="list-style-type: none"> Definition: Minor changes Reference period: Yes Format: No <p>Comparable: No</p> <p>Note: Comparability may depend on regularity of sex work practices</p>

1.5.9	<p>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?')</p> <p>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.</p>	A4	<p>% ever-IDUs who report the use of a condom at last sexual intercourse</p> <p>(UNGASS indicator)</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs who report that a condom was used the last time they had sexual (vaginal or anal) intercourse. ○ Denominator: Ever-IDUs who report having injected drugs and having had sexual intercourse in the last 12 months. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: No ○ 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' ○ Format: No <p>Comparable: Yes, with caution</p>
1.6.1	<p>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.)</p> <p>Data requested 42 - Number of current IDUs with a valid answer for sterile needles/syringes. 43 - Mean number of sterile needles last 4 weeks.</p>	A6	<p>% current IDUs who report having 15 or more sterile needles/syringes available for personal use in the last 4 weeks</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, change in wording from 'obtained' to 'available' ○ Reference period: No ○ Format: Yes, from mean to percentage <p>Comparable: No</p>
		O17	<p>Mean and median number of sterile needles/syringes available for personal use in the last 4 weeks among current IDUs</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes, change in wording from 'obtained' to 'available' ○ Reference period: No ○ Format: Not in mean, median added <p>Comparable: Yes (with caution)</p>

1.6.3	<p>Opioid maintenance (Has the user been in opioid maintenance in the last 4 weeks? i.e. using prescribed methadone, buprenorphine, heroin, etc.)</p> <p>Note that total sample for this question should be restricted to opioid users only.</p> <p>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.</p>	A7	<p>% opioid using ever-IDUs who were in opioid substitution therapy in the last 4 weeks</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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	<p>Changes:</p> <ul style="list-style-type: none"> ○ 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 <p>Comparable: Yes (with caution)</p>
1.7.1	<p>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).)</p> <p>Data requested 48 - Number of ever-IDUs who are immigrants. 49 - Number with a valid answer on country of birth. 50 - Proportion immigrants.</p>	A13	<p>% ever-IDUs born outside the country of study</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs born outside the country of study. ○ Denominator: All ever-IDUs in the sample. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: No, minor changes in wording ○ Reference period: Does not apply ○ Format: No <p>Comparable: Yes</p>

1.7.3	<p>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.)</p> <p>Data requested</p> <p>51 - Number of ever-IDUs who were recently homeless.</p> <p>52 - Number ever-IDUs with a valid answer for homelessness.</p> <p>53 - Proportion recently homeless.</p>	A14	<p>% 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</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Minor changes in wording ○ Reference period: No ○ Format: No <p>Comparable: Yes</p> <p>Note: in practice the changes in definition are not likely to make a large difference</p>
1.7.5	<p>History of injecting (Please provide data, if available, on the years of injecting.)</p> <p>Data requested</p> <p>54 - Number of ever-IDUs with a valid answer for history of injection.</p> <p>55 - Proportion <2 years since 1st injection.</p> <p>56 - Proportion 2 to <5 years since 1st injection.</p> <p>57 - Proportion 5 to <10 years since 1st injection.</p> <p>58 - Proportion 10 years or more since 1st injection.</p> <p>59 - Median years of injecting in the sample.</p>	A10	<p>% ever-IDUs with less than 2 years since their first injection</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs with less than 2 years since their first injection. ○ Denominator: All ever-IDUs in the sample. 	No	Yes	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: No ○ Reference period: No ○ 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). <p>Comparable: Yes</p>
		O20	<p>% ever-IDUs with less than 5 years since their first injection</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs with less than 5 years since their first injection. ○ Denominator: All ever-IDUs in the sample. 	No	No	<p>Changes:</p> <ul style="list-style-type: none"> ○ Definition: Yes ○ Reference period: Yes ○ Format: No <p>Comparable:</p> <p>Data can be compared over time if recalculated (adding the first two categories together)</p>

		O21	Mean and median number of years since first injection among ever-IDUs Definition: <ul style="list-style-type: none"> Mean and median value of years since first injection among ever-IDUs. 	No	No	Changes: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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	<p>% ever-IDUs who report an opioid as their primary drug in the last 4 weeks</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ 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. 	Yes	Yes	New in ST9 part 3, taken from ST9 part 2
		A12	<p>% ever-IDUs who report having ever been in prison.</p> <p>Definition:</p> <ul style="list-style-type: none"> ○ Numerator: Ever-IDUs who report having ever been in prison, including pre-trial custody or remands. ○ 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