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Expert Working Group on improving drug statistics and strengthening the Annual Report Questionnaire

Background paper II: Technical assessment of the Annual Report Questionnaire (ARQ)

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1. Introduction

The current ARQ was adopted at the 53rd session of the Commission on Narcotic Drugs (CND) in 2010 when a previous version of the questionnaire was reviewed and updated. As requested by the three international drug conventions, the ARQ fulfills the obligation of parties to furnish to the Secretary General "an annual report on the working of the Convention" [1]. Data and information collected through the ARQ are the backbone of the regular reporting to the CND on latest trends and of the annual World Drug Report. Key data submitted by Member States through the ARQ are also publicly disseminated through the UNODC website[2] after having been processed and validated.

The ARQ consists of four parts:

- Part I: Legislative And Institutional Framework
- Part II: Comprehensive Approach To Drug Demand Reduction And Supply
- Part III: Extent And Patterns Of Drug Use
- Part IV: Extent And Patterns Of And Trends In Drug Crop Cultivation And Drug Manufacture And Trafficking

The technical analyses has considered issues related to availability, quality, relevance and use of data and other information annually collected through the ARQ. Based on this assessment, a number of issues have been identified for consideration by national experts.

The analysis has been conducted on the basis of the following information:

- Member States' replies to the ARQ for the period 2010-2016
- Replies to the 'ARQ feedback questionnaire' sent to Member States and other stakeholders in November 2017

Other publications and reports, including the *World Drug Report*, that make use of data collected through the ARQ

This report has been produced by the UNODC Research and Trend Analysis Branch with the aim of facilitating expert discussion on possible ways to improve quality and effectiveness of the ARQ.

2. Prevalence of drug use

2.1. Data availability

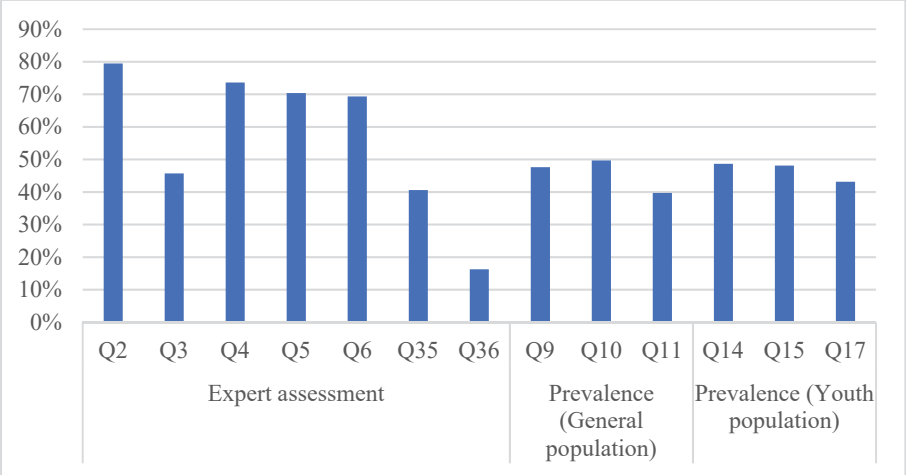
In the ARQ, information on the prevalence of drug use among the general and youth populations is collected through questions 1-17 and 35-36 of Part III. These sections ask for qualitative expert assessment as well as quantitative data for different populations:

- Expert assessment on drug use prevalence patterns and trends (questions 1-6, 35-36)
- Data on drug use prevalence among the general population (questions 7-12)
- Data on drug use prevalence among the youth population (questions 13-17)

[1] Art. 18 (a) Single Convention on Narcotic Drugs of 1961 as amended by the 1972 protocol. See also art 16 of the Convention on Psychotropic Substances of 1971 and art.20 of the United Nations Convention against illicit traffic in narcotic drugs and psychotropic substances.
[2] https://data.unodc.org/.

Figure 1 indicates that the availability of data varies significantly across these three sub-categories. On average, qualitative information from expert assessment is provided more frequently than quantitative data on prevalence.

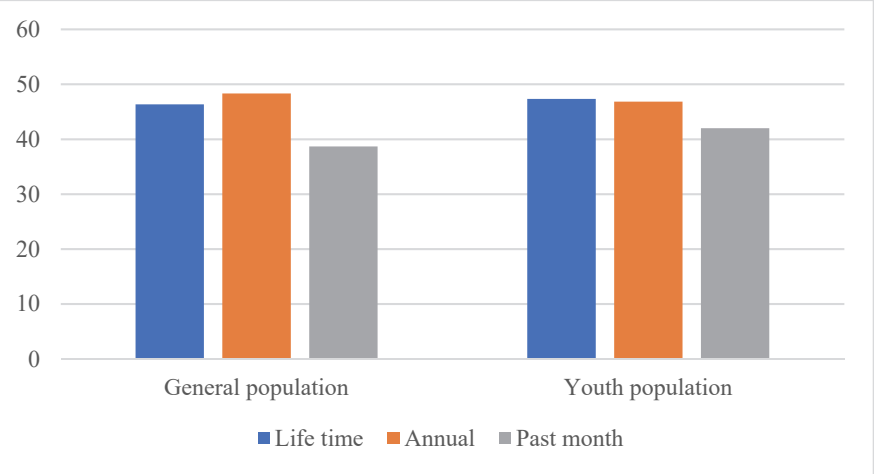
Figure 1: Average percentage of countries, among those who submitted ARQ Part 3, providing answers to questions 1-17, 34-36 ARQ Part III (2010 – 2015).



Source: ARQ Database 2010 - 2016

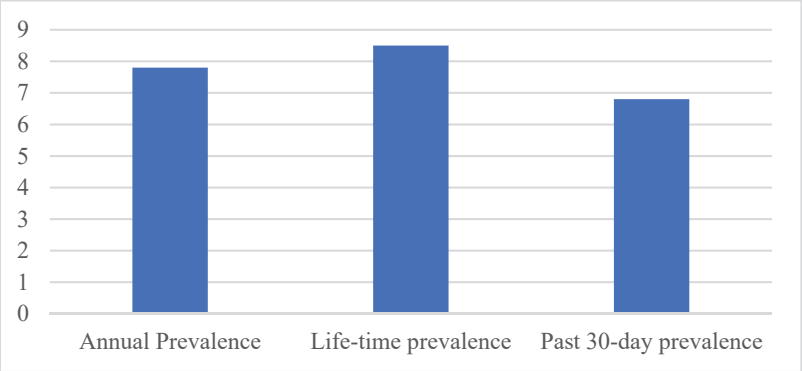
Focusing on quantitative data, between 40 and 50 countries on average provided at least one data point for lifetime, annual and past 30-day prevalence among the general and youth population between 2010 and 2015 (Figure 2). The ARQ asks for drug use prevalence data for 21 drug categories (7 main drug classes and at least 14 specific drug types, questions 9-11 and 15-17) but, in most cases, Member States provide data only for a small number of drug types.). On average, from 2010 to 2015, countries provided prevalence data in relation to approximately seven to eight drug categories, respectively for annual, lifetime and past 30-day prevalence (Figure 3).

Figure 2: Average number of countries that provided at least one data point for lifetime, annual and past 30-day drug use prevalence from 2010 to 2015.



Source: ARQ Database 2010 -2015

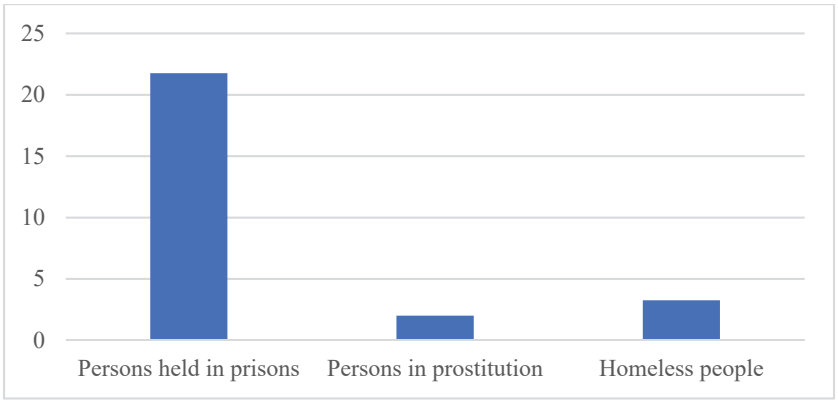
Figure 3: Average number of prevalence datapoints submitted by a given country in an ARQ response, annual, lifetime and past 30-day prevalence (among countries which submitted at least one datapoint).



Source: ARQ Database 2010 - 2015

Aside from the prevalence of drug use among the general and youth populations, the ARQ also requests information about prevalence of drug use among certain high-risk groups –prisoners, persons involved with commercial sex and homeless people - in questions 31-33. From 2012 to 2015, on average, 22 countries provided at least one data point for prisoners, while the number of countries providing data on the other two groups was consistently low (Figure 4).

Figure 4: Average number of countries that submitted data on drug prevalence among high-risk groups.



Source: ARQ Database 2010 – 2015

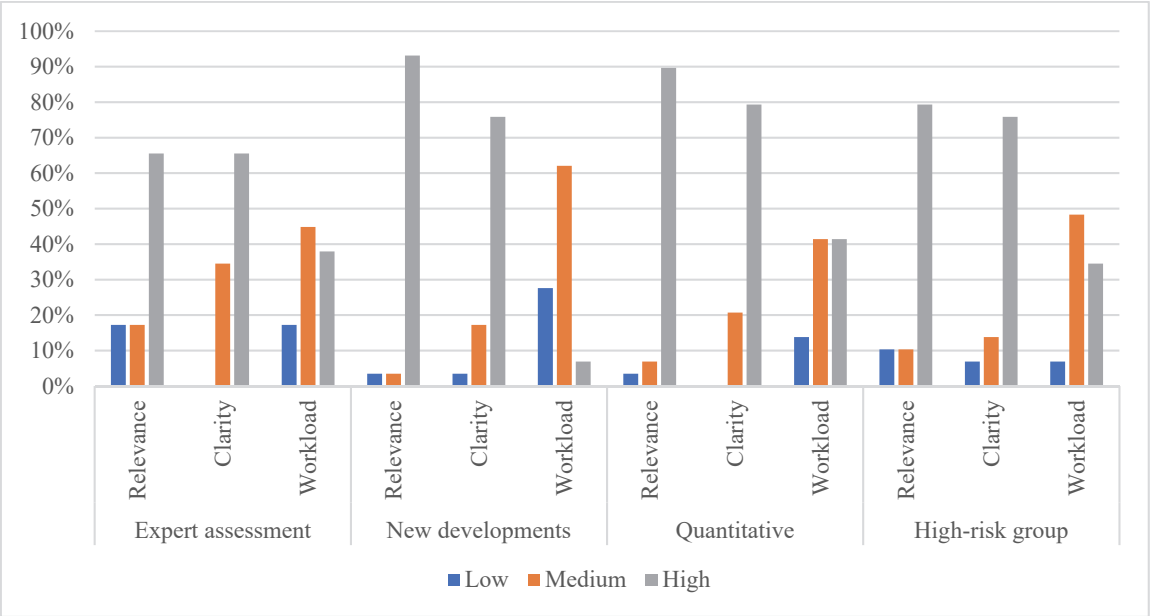
2.2. Relevance, clarity and workload

On the basis of Member States´ replies to the 'ARQ feedback questionnaire'[3], the main section on quantitative data among the general and youth populations were deemed to be more relevant than the sections on expert perceptions and on drug use among high-risk groups (Figure 5). In terms of clarity, the section on expert perception scored slightly lower than the other two. The responses suggested that the workload for collecting and reporting on expert assessments is similar to the workload of providing quantitative data on the general and youth populations.

[3] The ARQ feedback questionnaire was sent to all Member States on November 2017; the analysis presented here is based on 48 replies from 32 countries were received by UNODC Secretariat by end December. A similar questionnaire was also sent to international organisations, researchers/academics and NGOs: 27 replies were received.

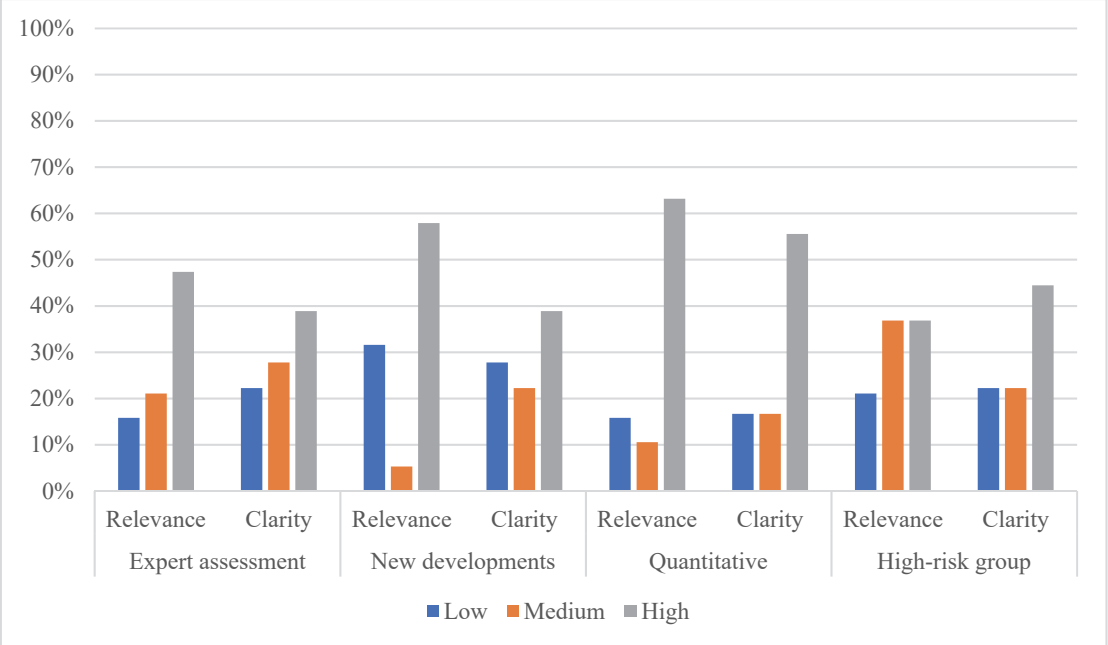
The feedback from other respondents (including non-governmental organizations and the academic community) reflected overall a less favorable rating in terms of relevance and clarity for these sections of the ARQ.

Figure 5: Distribution of ratings on relevance, clarity and workload of ARQ sections on drug prevalence (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 6: Figure 1 Distribution of ratings on relevance and clarity of ARQ sections on drug prevalence (Respondents other than Member States, 2017)

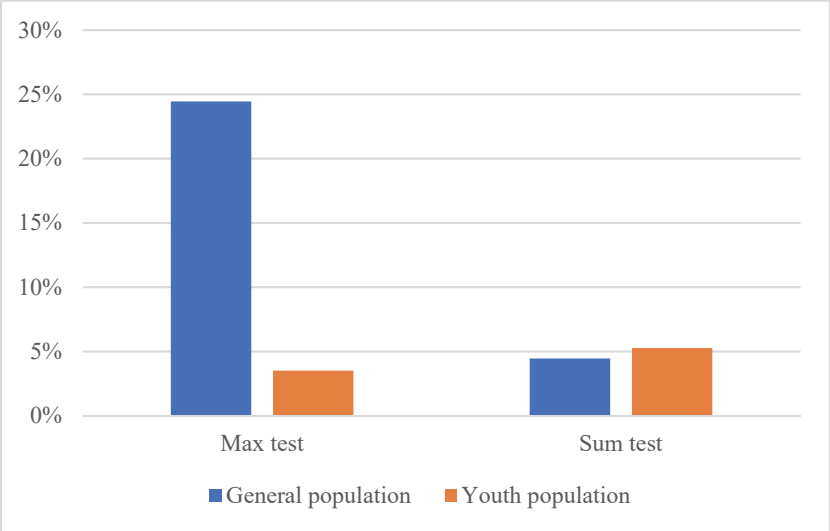


Source: ARQ Feedback Questionnaire, November 2017

2.3. Issues of data quality and use

Some consistency checks were carried out to assess the overall quality of data provided through the ARQ. For example, two tests were performed to check the consistency of the data. In the first test (Max test), data were regarded as "inconsistent" if any of the prevalence estimates for a specific drug was larger than the overall estimate of "any illicit drugs". In the second test (Sum test), data was regarded as "inconsistent" if the sum of prevalence estimates for all drugs were less than the prevalence estimate for "any illicit drugs". In general, the average proportion of countries failing the ´Sum test´ was low, while the proportion of countries failing the ´Max test´ was close to a quarter when considering data for the general population. These simple tests provide a clear indication that some quality problems exist in data submitted through the ARQ (*Figure 7*)

Figure 7: Proportion of countries that submitted both data on "any illicit drug" and at least one prevalence estimate for a specific drug that failed the max test and sum test, across the 6-year period (2010 to 2015).

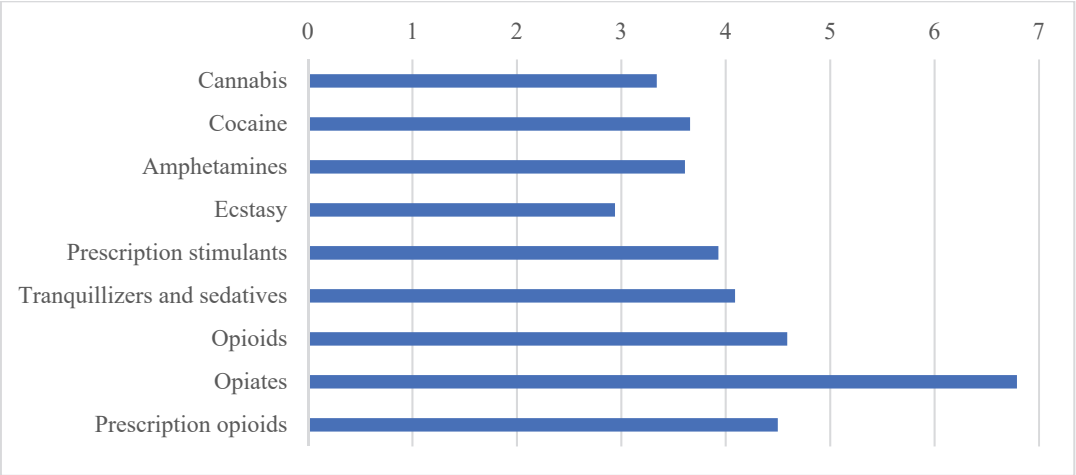


Source: ARQ Database, 2010 - 2015

In addition to the data, the ARQ also requests information on the sources and methods used to produce the data, so-called metadata. The existence of metadata is key to assessing whether data complies with methodological standards. There are different types of metadata; for example, information is often provided regarding the geographical coverage of the data, the size of the population and the source of the data (91% of countries provided two or more pieces of metadata for the general population). However, more detailed information on the methods used to produce the data is often lacking.

A specific challenge of drug prevalence data is that in a significant number of cases, data for a given year is reported repeatedly (for example, the prevalence of cocaine use for 2012 among the general population in a certain country is reported in several ARQ waves). This is reflected by the fact that the average 'seniority' (time lag) of reported data is four years (see Figure 8), with significant difference among prevalence for the various drug types. In any given ARQ wave, a new dataset of national prevalence data is provided by approximately 20-25 countries.

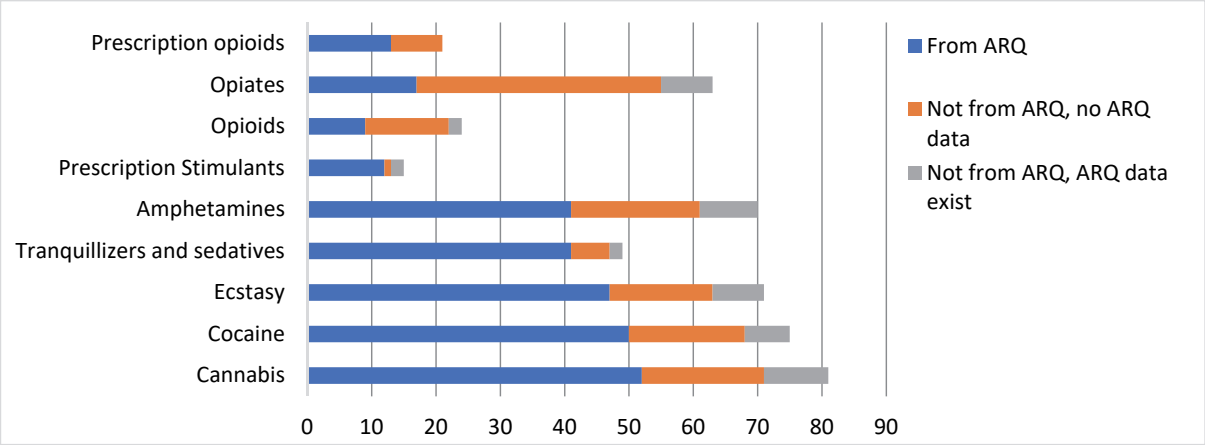
Figure 8: Average time lag of most recent datapoints on drug use prevalence among the general population, by drug class.



Source: ARQ Database 2010 - 2015

Drug use prevalence figures from the ARQ are the primary source for data and analyses published in the UNODC *World Drug Report* (WDR). To fill data gaps and to improve the quality of data used in the production of the WDR, other relevant sources may also be consulted. The data validation process also involves comprehensive consultation with and review by Member States. It is possible to shed light on the quality, usability and comprehensiveness of information provided through the ARQ by looking at the source of drug prevalence data in the WDR. Figure 9 shows the number of published data points by drug class and by source (ARQ, non-ARQ sources in cases where no ARQ data was available, and non-ARQ sources in cases where ARQ data was available but replaced[4]). For seven of the nine drug classes, the majority of the published data came from responses to the ARQ. For opioids and opiates, however, this was true for less than 40% of the data.

Figure 9: Number of countries for which past year prevalence data was published in the WDR 2017, by type of source according to drug classes.



Source: ARQ Database 2010 – 2015 and World Drug Report 2017

[4] Data from alternative sources may be used on the ground of criteria such as timeliness, consistency with previous data, provision of comprehensive data, and when supported by solid methodological documentation.

2.4. Overall challenges and strengths

- Data on drug use prevalence is key to assess trends and patterns of drug use for various population groups (such as the general population, youth and high-risk groups). Given the diversity of drug types and their health consequences, the ARQ collects information on drug prevalence for seven main categories of drugs and for at least 14 drug types within them. As explained earlier, there are challenges in terms of the coverage, quality and timeliness of the data reported by Member States.

- Besides statistical data on drug use prevalence, the ARQ includes questions on expert opinions about ranking among drug classes use and trends of their use (Question 3-6), Such questions can provide useful information, especially when statistical data on prevalence is missing. However, their reliability may be limited, particularly when information is missing regarding the method used to generate and collect the expert assessment. Triangulation across data sources points to potential weaknesses in these responses, which may be because they reflect the opinion of a single or small number of respondents, rather than the result of a comprehensive and structured consultation among a panel of recognized experts, as intended. An ARQ section on new developments in drug use (questions 35-36) aims to collect qualitative feedback on new trends/patterns emerging at the country level. This section facilitates the collection of first-hand information from national experts.

- While the current ARQ questions on drug use can provide information about the prevalence of drug use over a given reference period (lifetime, past-year and past-month), they cannot enable estimates on drug consumption because explicit information on the frequency of use and/or quantities consumed is not collected.

- The prevalence of drug use among high-risk groups is explored in a dedicated section (Q31 – 33) but the response rate to these questions is low, particularly for persons involved with commercial sex and homeless people.

- For some drugs, notably opiates, it is well-known that general population surveys - the standard instrument for collecting prevalence data - tend to underestimate drug use prevalence because the target population is ‘hidden’ and may not reside in households. Alternative methods exist for estimating the size of such hidden populations, but they are of an entirely different nature (as for example indirect methods). Therefore, experts may want to consider the placement of special questions on opiate use.

- The structure of the current list of drugs for which prevalence data are collected is in general comprehensive. For this indicator the classification of drugs is crucial, as data on prevalence does not easily lend itself to aggregation without access to microdata. Some issues exist in relation to specific drug types (for example, ecstasy-type substances) and the possibility of reorganizing the list could be explored. For example, the list of drugs may be made more consistent with the most important aggregates and across sections within the ARQ. The current classification attempts to capture two specific dimensions: the distinction between controlled and non-controlled substances and the distinction between misuse of pharmaceutical products (usually requiring a prescription) and the use of illicitly sourced drugs. These may warrant scrutiny.

- The current list of drug types does not explicitly include new psychoactive substances (NPS), which means that information is not systematically reported. The request for information on NPS stems from the UNGASS Outcome Document5.
- The current ARQ can shed light on the overall use of controlled substances, while no information is available on possible risk factors for drug use. The request for information on risk factors was also included in the UNGASS Outcome Document6.
- Drug use may affect certain subgroups of the population in different ways. Aside from clear differences between drug use patterns among females and males, drug use may take on a different dimension or particular pattern among specific vulnerable populations, such as children, sex workers, homeless people, elderly people and men who have sex with men. Unless specifically targeted, such patterns may remain hidden precisely because of their unusual character, or because of the hidden nature of the vulnerable population itself. Moreover, given the difficulty of gathering data on such populations, specialized and qualitative studies such as network scale-up, rapid assessments, focused group studies and other qualitative approaches can provide valuable insights.

2.5. Possible issues to be considered by the experts for modifications and improvements

- Examine the inclusion of appropriate drug types to collect information on NPS consumption. For this topic, the need for standardization needs to be balanced against the volatility of NPS use at country level, which calls for some flexibility to be retained in the disaggregation of requested data
- Consider the challenge of reflecting poly drug use and relevant type of substances
- Social and economic risk factors – such as levels of education and employment status – may be considered. For example, prevalence of drug use could be disaggregated by these variables to provide a more detailed picture of drug use across the population.
- The inclusion of data or information from other data sources or approaches – such as waste water analysis – could be considered.
- Provision may be made for ad hoc reporting on vulnerable and hidden populations, including the results of qualitative studies, rapid assessments, etc.
- Ensure that collected data are made gender relevant, in terms of data disaggregation by sex and of coverage of gender issues
- Based on relevance and data availability, consider whether the list of drug classes and drug types can be simplified for the questions on drug prevalence. These data are usually collected through drug use surveys and based on self-reporting of respondents, which

[5] See UNGASS Outcome Document, Operational Recommendation (OR) 5 i: Strengthen domestic information-sharing and promote information exchange at the regional and international levels on effective prevention and treatment and related legislative measures in order to support the development of effective, scientific evidence-based responses to the emerging challenge of new psychoactive substances with regard to their adverse social and health consequences;

[6] See UNGASS Outcome Document, Operational Recommendation 1.h: Promote and improve the systematic collection of information and gathering of evidence as well as the sharing, at the national and international levels, of reliable and comparable data on drug use and epidemiology, including on social, economic and other risk factors

might have limited information on the type of drug consumed. In particular, it could be considered what level of information is needed by class of drugs vs type of drug, as for example:

  - Cannabis - Marijuana; Hashish
  - Cocaine - Powder; crack; pasta base
  - Opioids – heroin, opium, pharmaceutical opioids

- Consider low data availability on prevalence among high-risk groups
- Expert opinions can provide valuable information about drug use in the population to complement prevalence data. However, in consideration of feedback expressed by MS representatives (see section 2.2) the list of questions could be reduced and made more focused. Furthermore, consideration may be given to the wording of the questions to encourage respondents to conduct a comprehensive and structured consultation with a large group of country experts; this includes the collection of metadata on the methods used.
- Consider a different approach to gathering data on prevalence of drug use for certain drug types, notably opiates, whose users are known to be hidden populations which are particularly hard to measure. Ways could be considered to capture information, even fragmented or partial, on extent, patterns and trends of drug use especially in countries where drug use surveys are not conducted

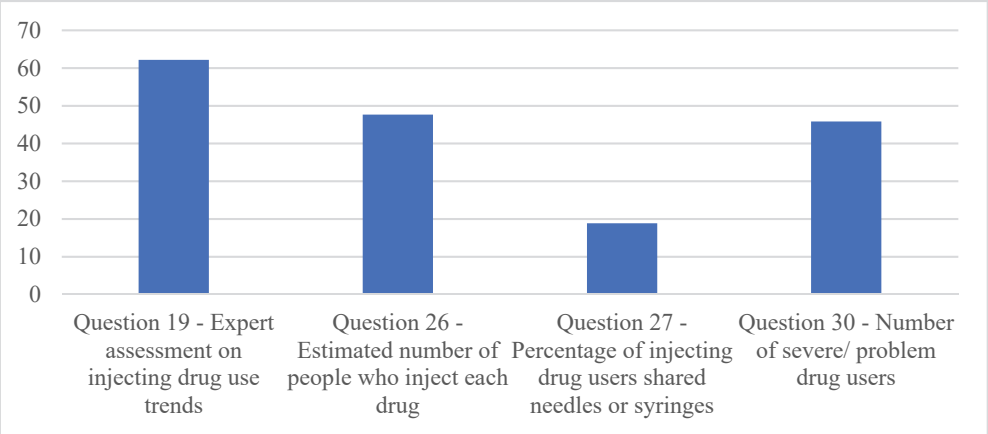
3. Severe/high-risk drug use and treatment

3.1. Data availability

In the ARQ, information on severe/high-risk drug use is collected through questions 18 to 30 of part III. Several of these questions are qualitative (experts´ assessments) or relate to metadata, while quantitative questions are limited.

Figure 10 shows the average number of countries that provided data on various questions related to severe/high-risk drug use. From 2010 to 2015, on average, 62 countries provided expert assessments on trends in injecting drug use, while fewer countries respectively provided data on the number of people who injected each drug, on the percentage of injecting drug users who shared needles or syringes, and on the number of severe/high-risk drug users. The number of countries providing information on injecting drug users who share needles or syringes - was clearly the lowest among these four indicators.

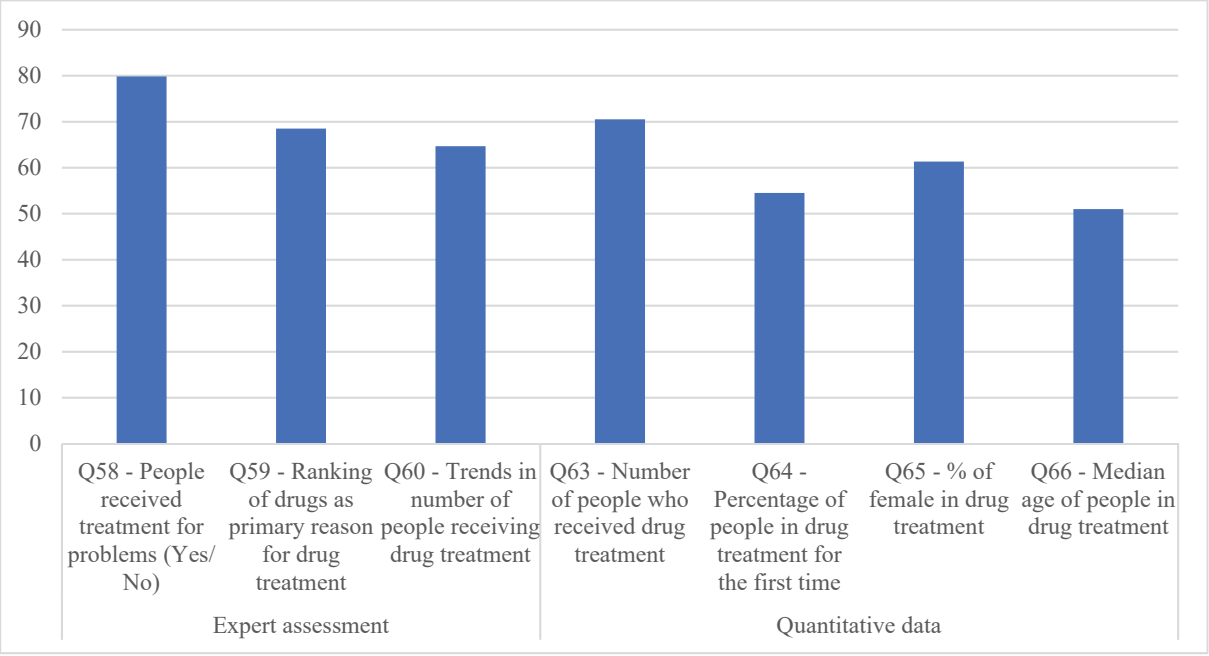
Figure 10: Average number of countries that provided data on various questions on severe/high-risk drug users.



Source: ARQ Database 2010 – 2015

The measurement of drug treatment is tackled in questions 58 to 69 of Part III. Several of these questions are qualitative (experts' assessments) or refer to metadata, while the number of quantitative questions is limited. The response rate for these questions is relatively high compared to other sections (Figure 11).

Figure 11: Average number of countries that provided data on selected questions on treatment over the period 2010-2015.



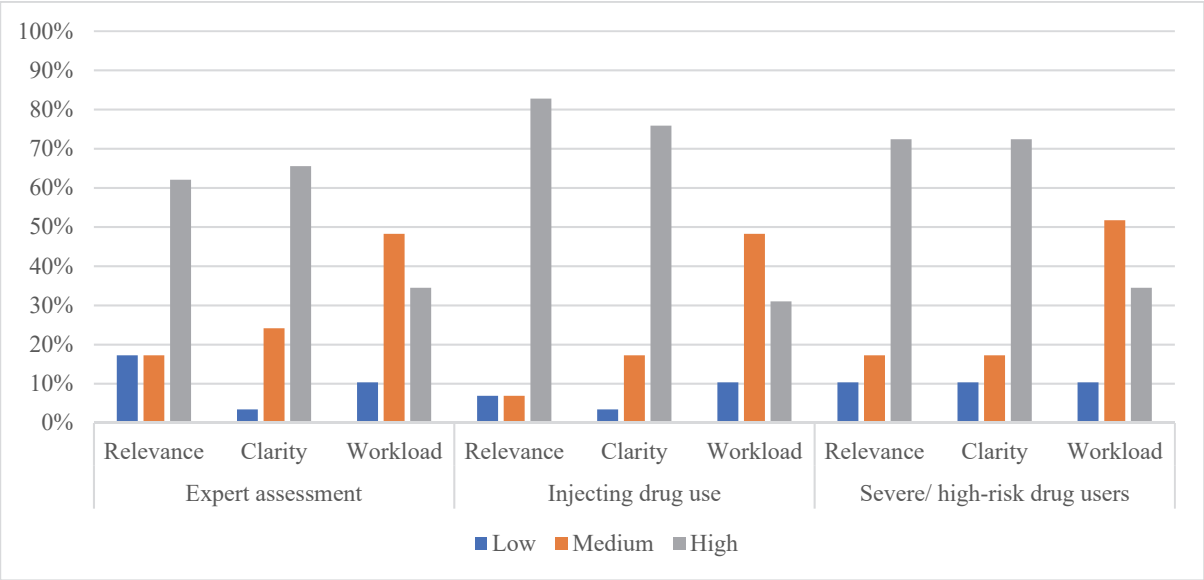
Source: ARQ Database 2010 - 2015

3.2. Relevance, clarity and workload

The 'ARQ feedback questionnaire' asked Member States and other respondents to rate the ARQ sections related to severe/high-risk drug use in terms of relevance, clarity and workload. Among Member States, the section on injecting drug use was rated most favourably in terms of relevance and clarity, and the section on expert assessments, least favourably. All sections were rated similarly in terms of the workload needed to provide responses. Feedback from non-governmental

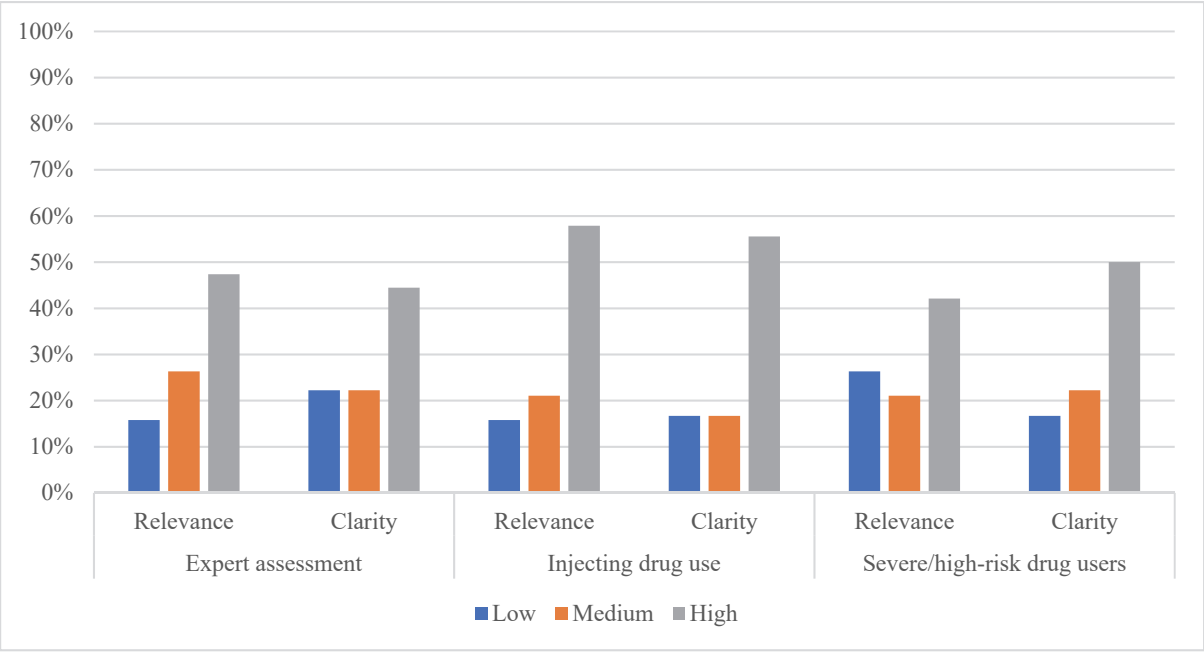
organizations suggested that the section on severe/high-risk drug use is less relevant, yet many respondents found the section to be clear in terms of concepts, definitions and response categorizations.

Figure 12: Distribution of ratings on relevance, clarity and workload of ARQ sections related to severe/high-risk drug use (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 13: Distribution of ratings on relevance and clarity of ARQ sections related to severe/high-risk drug use (Respondents other than Member States, 2017)

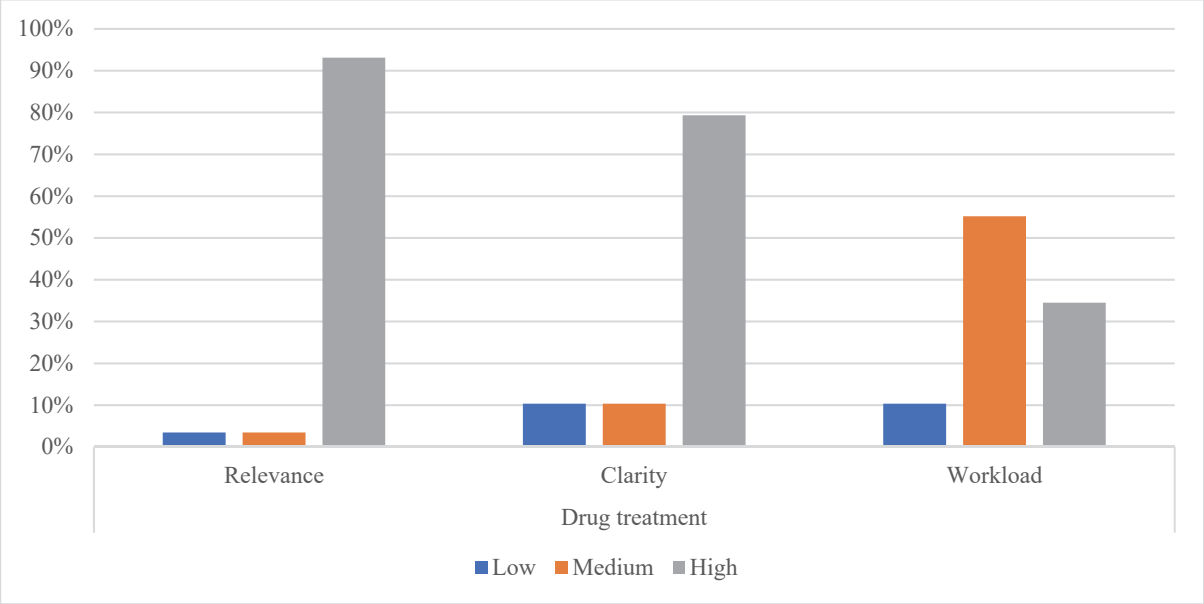


Source: ARQ Feedback Questionnaire, November 2017

With respect to treatment, a significantly larger proportion of respondents from Member States rated the section as relevant and clear, as opposed to other respondents (see **Error! Reference**

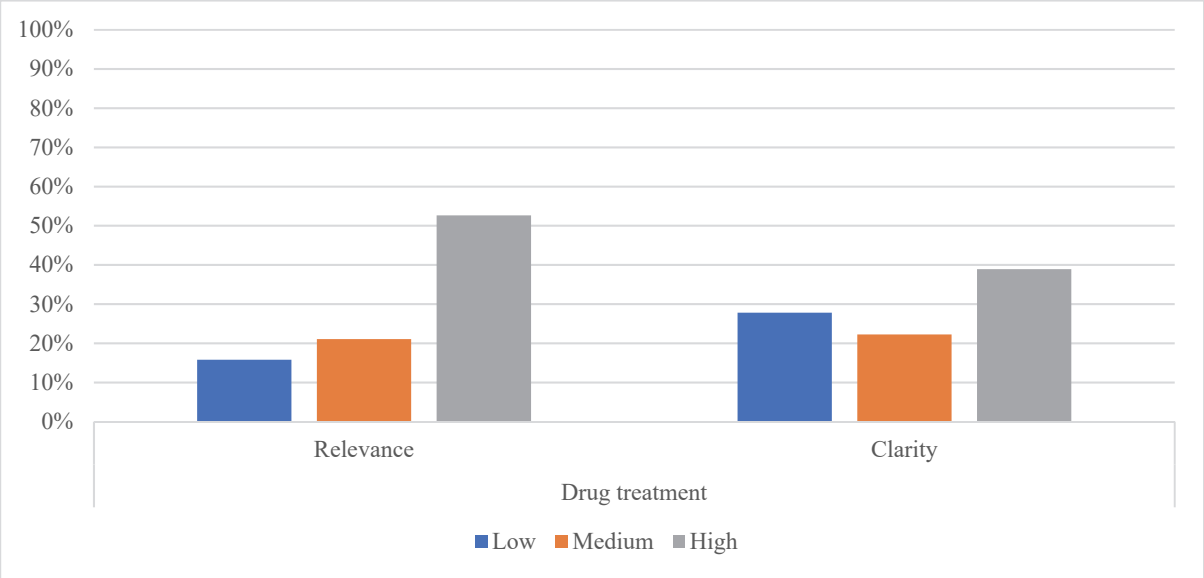
source not found.ure 14 and 15). The rating for workload was overall similar to the other ARQ sections.

Figure 14: Distribution of ratings on relevance, clarity and workload of the ARQ section on drug treatment (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 15: Distribution of ratings on relevance and clarity of the ARQ section on drug treatment (Respondents other than Member States, 2017)



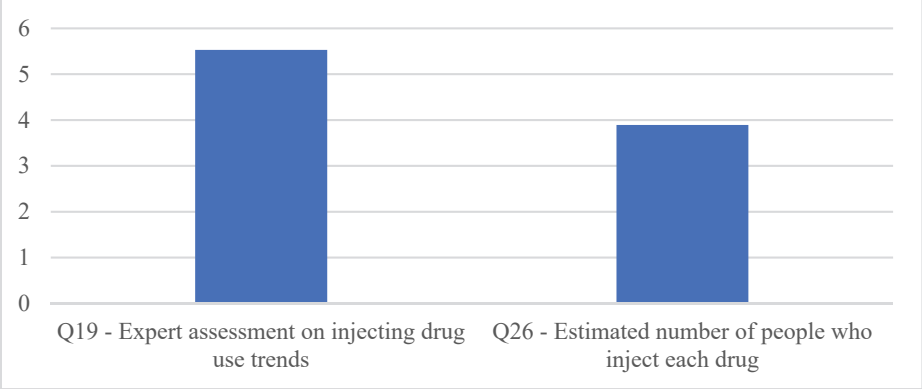
Source: ARQ Questionnaire, November 2017

3.3. Issues of data quality and use

The questions related to injecting drug use are structured into 14 drug categories; however, less than half of these 14 datapoints are typically provided (see figure 16) Quantitative data on severe/high-risk drug use is requested for three overarching categories (opioids, cocaine, ATS) as well as an overall aggregate category, of which the most commonly provided is the category of

opioids.; In some cases, the overall number of injecting drug users is provided, and it is not clear whether this refers pre-dominantly to a single drug class (and which one).

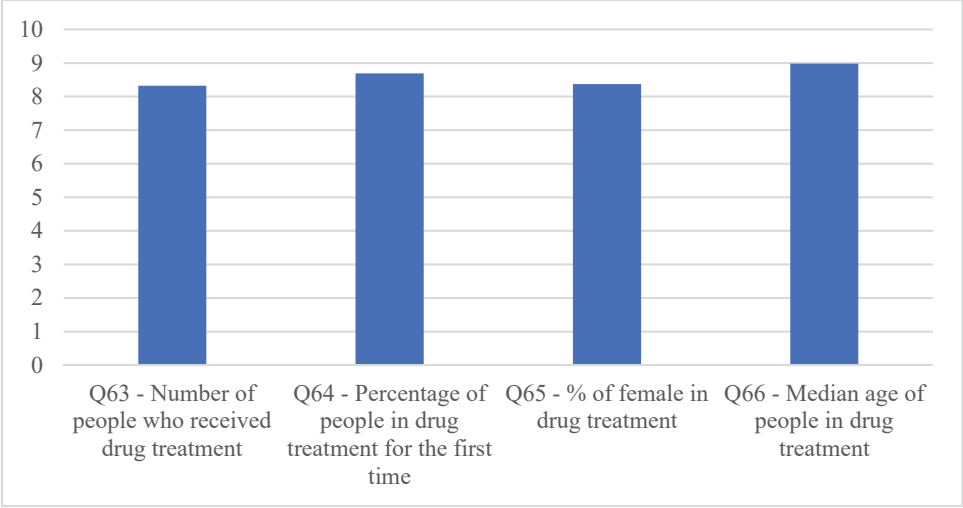
Figure 16: Average number of datapoints submitted, out of 14 possible drug categories, in response to selected questions on injecting drug use (among countries which submitted at least one datapoint).



Source: ARQ Database 2010 - 2015

The comprehensiveness of the responses related to drug treatment is better, in line with the finding of the overall response rate (see **Error! Reference source not found.**17). This appears to reflect the relative ease of deriving data from administrative records (as opposed to estimates or surveys) and the apparent widespread availability of registries on treatment with detailed data in many countries.

Figure 17: Average number of datapoints submitted, out of 15 possible drug categories, in response to selected questions on treatment (among countries which submitted at least one datapoint).



Source: ARQ Database, November 2017

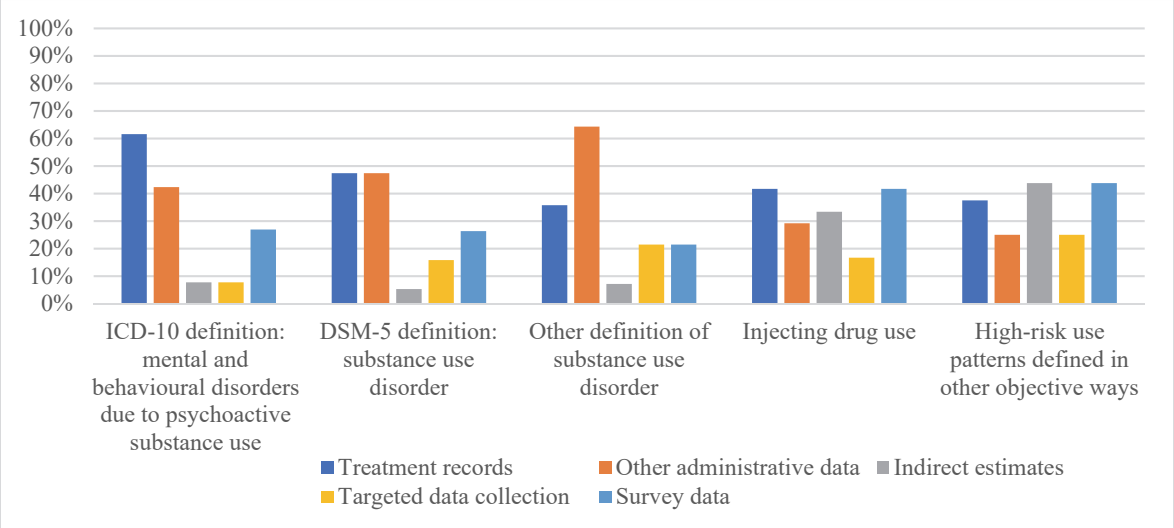
There are two important metadata questions related to drug treatment, one about coverage (part of country/types of treatment facility covered), and another about the country's definition of people in drug treatment. Among countries that provided any data (on average 73 countries over the period 2010-2015), an average of 25% provided information about coverage and 76% provided information about their definition of people in drug treatment.

The quality of the data on treatment can be assessed on the basis of consistency of values between "any drugs" and specific drug types. Over the period 2010-2015, on average 62 countries (min: 55; max: 66) provided an overall estimate of the number of people in treatment for "any illicit drugs" and also at least one estimate for a specific drug. For these countries, the individual estimates for each drug were added and checked against the overall estimate for "any illicit drugs". Data were regarded as "consistent" if the sum of individual drugs added up to the overall estimate. Using this method, the data was found to be consistent in 22% of the cases.

3.4. Overall challenges and strengths

- There are concerns about the reliability, interpretability and usability of expert assessment questions. Moreover, some of the questions in the section on injecting drug users have limited analytical value (for example, yes/no questions such as questions 18, 20 and 21).
- There is a lack of a clear, well-recognized and objectively verifiable definition of severe/high-risk drug use. Data provided in the ARQ tend to be based on different definitions across countries, ranging from data derived from treatment registers (without adjustment) - which tends to underestimate the real values –. The guidelines currently provided in the ARQ refer to different criteria (frequency of drug use and/or injection of drugs and/or based on clinical diagnosis of drug dependency). This leads to data inconsistency and lack of international comparability.
- In the 'ARQ feedback questionnaire', questions were also posed to explore the availability of data for five different variations of the concept of severe/high-risk drug use, including medical definitions of substance use disorders (ICD-10, DSM-IV or other), injecting drug use, or other high-risk use patterns defined in other objective ways, in terms of, for example, frequency of use. The replies indicate that data based on administrative sources - including estimates based on indirect approaches based on such sources - tend to be more available for groups of severe/high-risk drug use identified on the basis of medical parameters, survey data are more available to identify groups based on specific patterns of drug use and data from targeted data collections are overall less available.

Figure 18: Availability of data on different variations of the concept of high-risk/severe drug use (conditions/behavioural patterns requiring treatment) (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

- The ARQ definition of injecting drug user is not clear, as the reference period is currently not specified (people who have injected in the last year, or last month, etc.). Moreover, the current formulation of the main questions on injecting drug users requires data for four drug groups and at least 10 drug types, a level of detail that is very difficult to obtain.

- Producing reliable estimates on hidden populations, such as persons injecting drugs or persons engaging in severe/high-risk drug use, is very challenging when using conventional statistical methods such as general population surveys. Once a precise definition is agreed upon, standardized methodologies for producing the required estimates could be recommended with a view of enhancing the capacity of countries to generate this data.

- The definition of treatment can be subject to varying interpretations: the number may include inpatients, outpatients or people receiving brief or limited treatment interventions. Some countries may consider counselling to fall within treatment, while others may limit their data to pharmacological interventions.

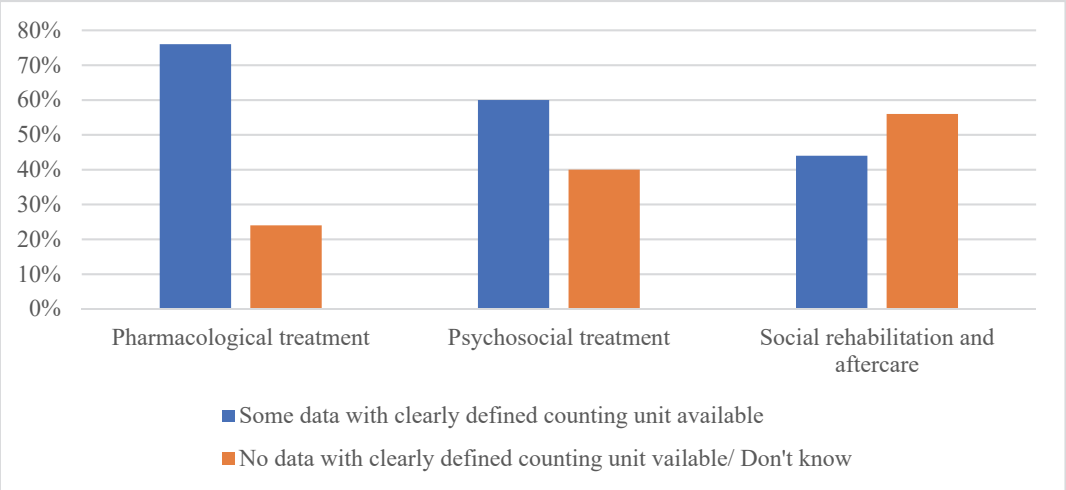
- The counting units and counting rules for treatment are, in practice, not standardized: some countries may report number of treatment episodes, instead of number of persons in treatment (which is requested in the ARQ). Even when the number of persons is reported, there may be difficulties in attributing the primary drug of abuse, leading to double counting of the same individual. The current ARQ allows the respondent to specify whether the figures provided refer to persons in treatment at a particular moment in time, persons in treatment at any time during the year, new treatment entrants or persons discharged. Although this makes it easier for respondents to reply, it also limits the comparability of the data.

- For some countries, the reported numbers are not national estimates. The numbers may only come from a few big hospitals in capital cities, or only from public hospitals.

- The current ARQ does not cater for the reporting needs arising out of SDG indicator 3.5.1, which calls for data on treatment interventions according to type (pharmacological, psychosocial and social rehabilitation and aftercare).

- In the 'ARQ feedback questionnaire', respondents from Member States were also asked to indicate if it was possible to break down treatment data into three categories: pharmacological, psychosocial and rehabilitation and aftercare services. Twenty-five responses were received for this question. Overall, three quarters of the respondents indicated that they can provide data on pharmacological treatment (either as an aggregate or with at least one subtype). Less than half indicated that they can provide data for rehabilitation and aftercare (either as an aggregate or at least with one subtype).

Figure 19: Number of respondents from Member States indicating the feasibility of providing treatment data, by type of treatment (in the aggregate or at least one subtype)



Source: ARQ feedback questionnaire, November 2017.

- Currently, no information is collected on risk factors affecting severe/high-risk drug use or injecting drug users. The request for information on risk factors derives from the UNGASS Outcome Document7.
- The quality of treatment intervention and services, including those for prevention of HIV and Hepatitis B among people who use/inject drugs, cannot be assessed by the current level of questions in Part II of the ARQ.

3.5. Possible issues to be considered by the experts for modifications and improvements

- Improve the relevance of questions for analyzing gender disparities (disaggregation by sex, coverage of issues which can highlight gender disparities)
- Consider the inclusion of NPS where relevant and feasible
- Revisit questions based on expert opinions, for example by reconsidering the inclusion of questions 18, 20, 21, 22 and 27.
- Explore ways to take stock of the scattered data and information available in less resourced countries on severe/high-risk drug users while maintaining a minimum level of standardization
- Consider reducing the level of detail, in terms of drug categories, in the questions on injecting drug use.
- Consider examining for which high risk groups it is feasible and relevant to collect data
- Consider collecting information, data and research on severe/high-risk drug users and injecting drug users in order to identify risk factors of drug use; the collection of

[7] See UNGASS Outcome Document, Operational Recommendation 1.h: Promote and improve the systematic collection of information and gathering of evidence as well as the sharing, at the national and international levels, of reliable and comparable data on drug use and epidemiology, including on social, economic and other risk factors

disaggregated data on severe/high-risk drug users by socio-economic and other factors could also be examined .

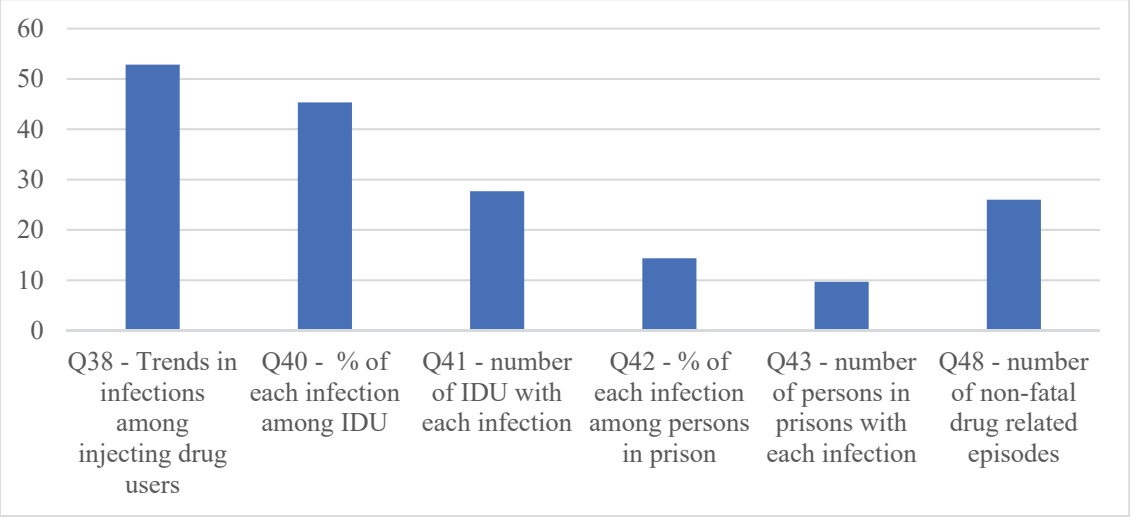
- Taking into account that various sources of information and/or methods can be used to produce data about injecting drug users and severe/high-risk users, consider the possibility of collecting data from multiple sources so as to provide a more complete picture (instead of asking only one estimate, as in the current ARQ).
- In view of the reporting requirement for SDG indicator 3.5.1, discuss best ways to collect data on the provision of treatment by type of treatment (the SDG indicator requires the disaggregation by pharmacological, psychosocial and rehabilitation and aftercare) and how to define (broadly) the severe/high-risk users so as to capture the different criteria and reporting systems used for severe/high-risk users or people with drug use disorders.
- Consider questions which can assess provision of treatment services in closed settings such as prisons
- As currently the majority of treatment is in outpatient setting consider if there is a need to redefine treatment and how to characterize different treatment modalities
- Consider inclusion of ad-hoc modules that strengthen assessment of quality and availability of treatment services, as for example on the basis of WHO/UNODC Substance use disorder treatment facility survey.
- Consider including cannabis and opiates in the list of drugs (currently consisting of 4 categories) for which an estimate of high-risk/severe drug users is requested (question 30).
- Consider providing more precise definition(s) of various groups of severe/high-risk drug users, taking into account measurability of various options and the availability of related data across countries; this work would feed the development of SDG indicator 3.5.1.
- Define clearly the concept of treatment, the associated counting units (treatment episodes versus persons, treatment entrants versus people in treatment) and counting rules and address other issues of definition for injecting drug users.
- Ensure that ARQ data allow to reach a conclusion on comprehensiveness of the treatment response and integration of services.

4. Mortality, morbidity, prevention and access to pain medication

4.1. Data availability

There are six key ARQ questions on different aspect of morbidity, including one (Question 38) on expert assessment of trends in infections among injecting drug users. Figure 20 shows the number of countries that provided responses to each of these questions. Among the quantitative questions, the response rate for the question on the prevalence of infection among injecting drug users was the highest. From 2010 to 2015, on average 45 countries provided data on at least one type of infection. The response rates for the other questions were substantially lower, particularly in relation to morbidity among prisoners.

Figure 20: Average number of countries that provided data on different questions on drug-related morbidity over the period 2010-2015.



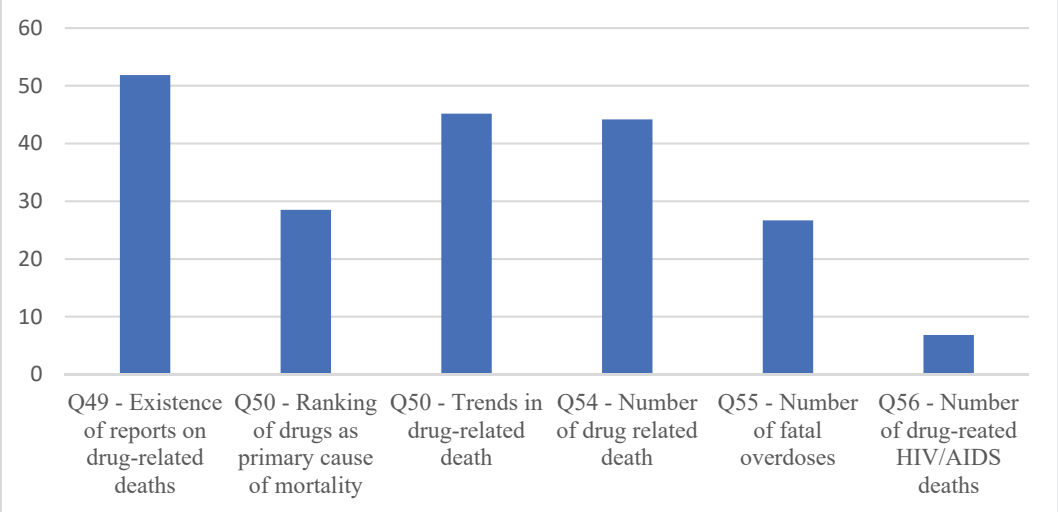
Source: ARQ Database 2010 – 2015

There are three ARQ questions on expert assessment of drug-related mortality and three questions asking for quantitative data on mortality. Figure 21 shows the number of countries that provided data on each of these questions. While a significant number of countries was able to provide the number of drug-related deaths, the response was much lower in relation to data on fatal overdoses and drug-related HIV/AIDS deaths.

The ARQ currently does not cover the topic of accessibility to pain medication. INCB annually collects some information on this issue.

Prevention is covered in Part II of the ARQ, however the current level of questions, doesn't allow a robust assessment of the quality of prevention intervention and services.

Figure 21: Average number of countries that provided data on different questions on drug-related mortality over the period 2010-2015.

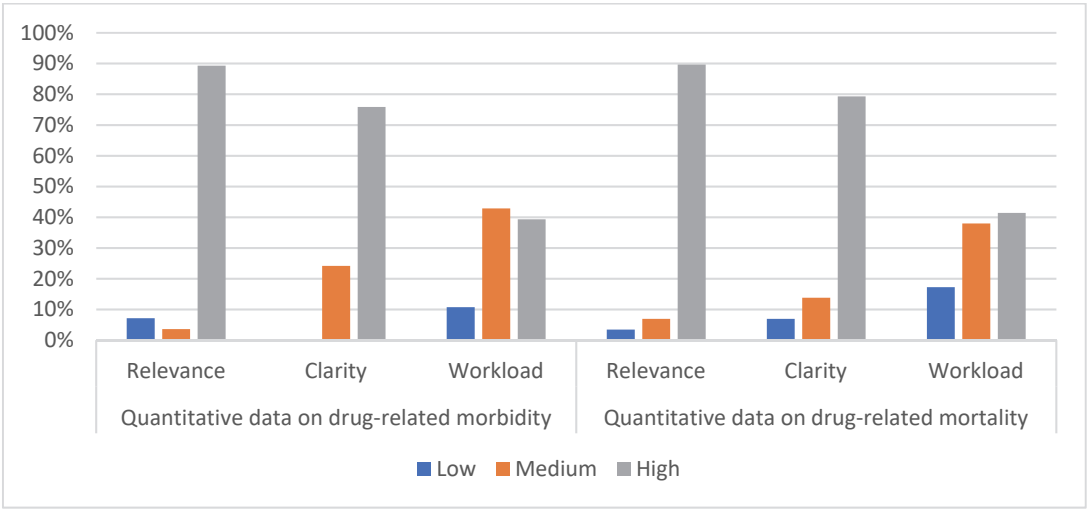


Source: ARQ Database 2010 - 2015

4.2. Relevance, clarity and workload

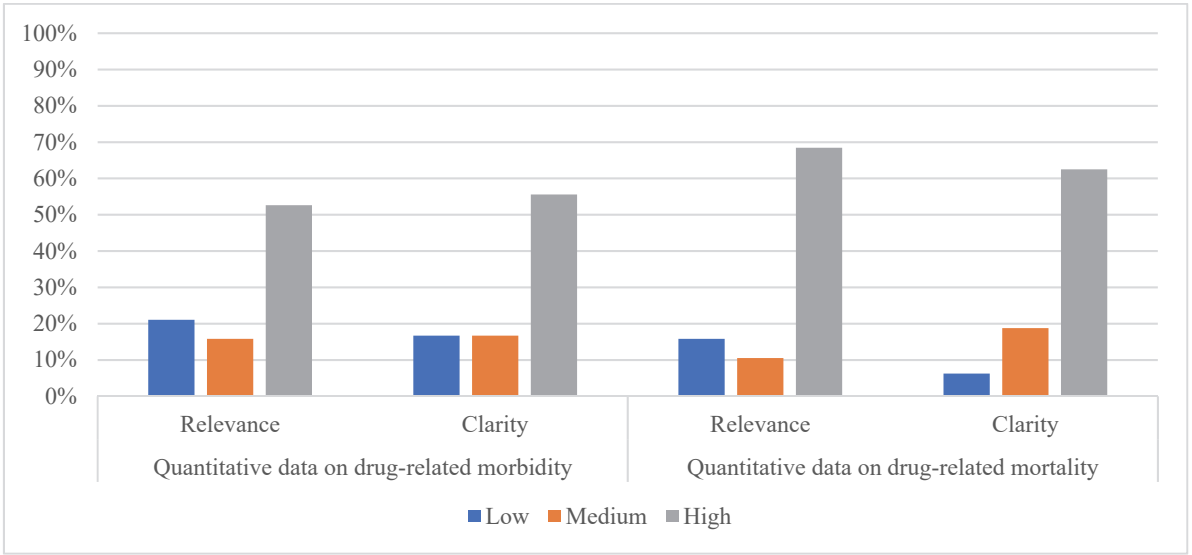
The ARQ sections related to drug-related mortality and morbidity were rated in terms of relevance, clarity and workload by respondents from Member States and respondents from non-governmental organizations, civil society and academia. The quantitative data sections were rated as highly relevant by respondents from both Member States and other respondents (see figure 22 and **Error! Reference source not found.**23), while the sections on expert assessments scored slightly lower on relevance and clarity (see Figure 24 and 25). Respondents from Member States reported that the time and resources needed to complete sections on drug-related mortality and morbidity are relatively similar.

Figure 22: Distribution of ratings on relevance, clarity and workload of quantitative data sections on drug-related morbidity and mortality (Respondents from Member States, 2017).



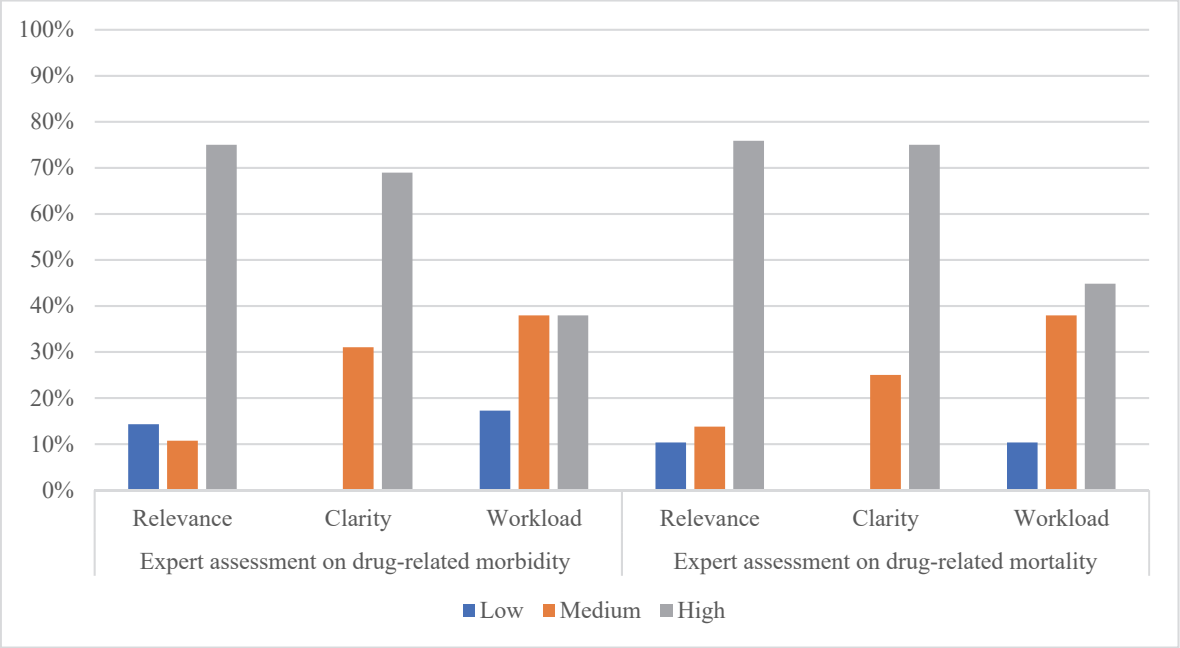
Source: ARQ Feedback Questionnaire, November 2017

Figure 23: Distribution of ratings on relevance and clarity of quantitative data sections on drug-related morbidity and mortality (Respondents other than Member States, 2017)



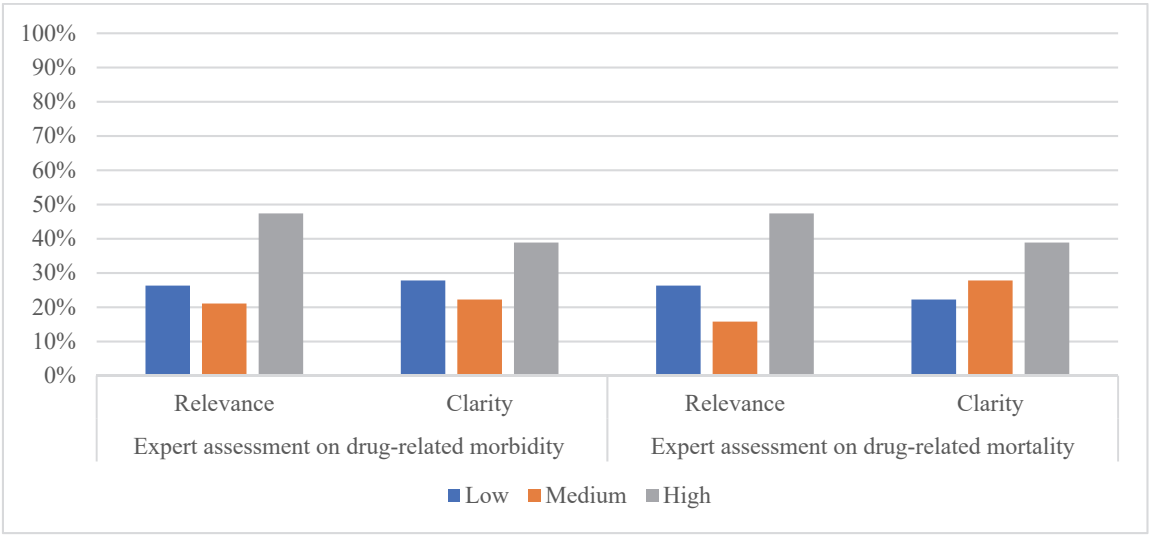
Source: ARQ Feedback Questionnaire, November 2017

Figure 24: Distribution of ratings on relevance, clarity and workload of expert assessment sections on drug-related morbidity and mortality (Respondents from Member States, 2017).



Source: ARQ Feedback Questionnaire, November 2017

Figure 25: Distribution of ratings on relevance and clarity of expert assessment sections on drug-related morbidity and mortality (Respondents from civil society, academia, 2017)



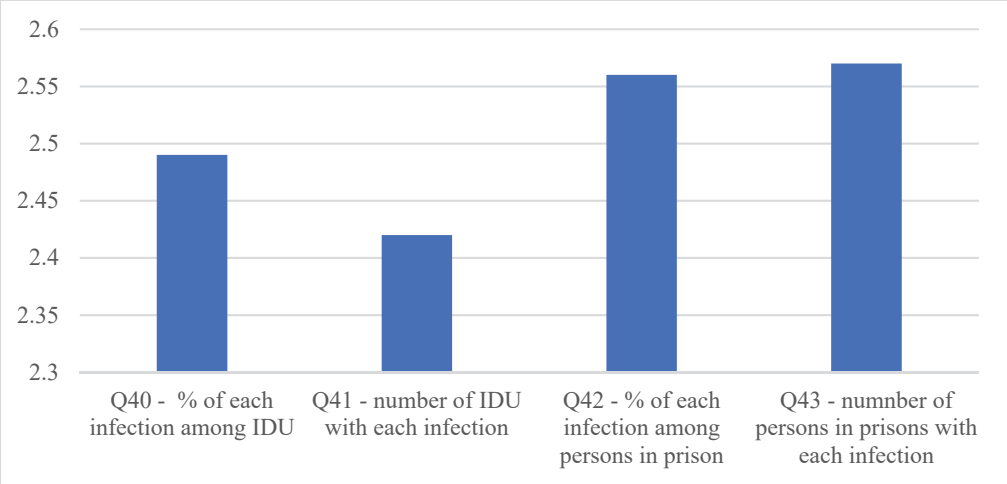
Source: ARQ Feedback Questionnaire, November 2017

4.3. Issues on data quality and use

Questions 40-43 focus on four infectious diseases, in two cases in relation to injecting drug users and in two cases focusing on people infected with these diseases among persons held in prison-like settings independently of their status as drug users. The above questions require data disaggregated by type of infection and usually data on persons infected among those detained in prisons are more comprehensive, when they exist and are reported.

These questions also need to be viewed in light of questions 31-33 on the prevalence of drug use among high-risk groups (such as prisoners).

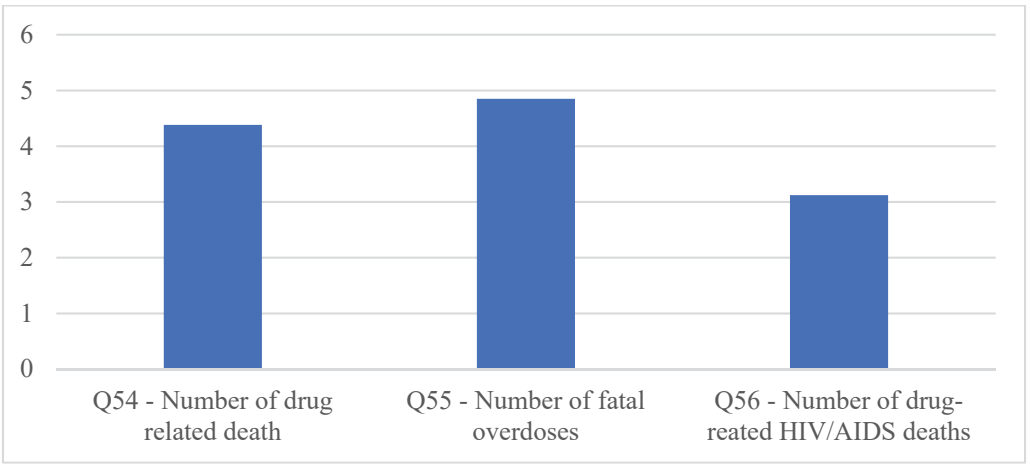
Figure 26: Average number of datapoints submitted (out of 4 possible infections) in response to each of the morbidity questions, among respondents who provided at least one datapoint.



Source: ARQ Database 2010 - 2015

There are various ways, some direct and others indirect, in which drug use may lead to death. These range from a drug overdose, to terminal infectious diseases such as HIV being transmitted through injecting drug use, to drug-induced violence and traffic accidents. In practice, it is difficult for respondents to account for deaths that are indirectly attributable to drug use, while the scope of the deaths reported through the ARQ is often not clear. Some countries base the data on the codes of the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) but the exact national list of codes is often not available. In the ARQ, mortality data are requested disaggregated according to a detailed list of drugs (seven classes and at least eight types). The fact that on average countries are able to provide data for less than 5 drug categories may indicate that the list of drug ise too detailed, while confirming that for directly attributable deaths such as overdoses (question 55) it may be easier to ascertain the type of drug in comparison with drug-related HIV/AIDS deaths (question 56) (Figure 27).

Figure 27: Average number of datapoints submitted (out of 15 possible drug categories/ drug types) on each of the mortality question.



Source: ARQ Feedback Questionnaire, November 2017

4.4. Overall challenges and strengths

- Data on the morbidity of persons injecting drugs provide important and useful information on the health impacts of drug use and the health conditions of drug users who engage in high-risk use patterns. However, availability of data related to persons in prison is very low. Question 48 is very broad in scope and its response rate has generally been relatively low.
- The response rate for data on drug-related HIV/AIDS deaths is in general low.
- The definition of drug-related deaths suggested in the ARQ is broad and includes deaths caused directly and indirectly by the consumption of illicit drugs. Definitions and enumeration practices can vary significantly across countries and it is unclear which practices are used by the countries that report data. For example, a person that died as a result of HIV contracted through injecting drug use, may or may not be considered as a drug-related death, depending on the country-level practice. Because of these definitional differences and varying national practices, significant discrepancies exist in the data on drug-related mortality as collated and reported by UNODC and WHO.

4.5. Possible issues to be considered by experts for modifications and improvements

- Consider how to overcome the very low response rate of several questions.
- Consider shortening the list of drug categories for which mortality data is collected to make it more feasible for Member States to reply
- Improve the relevance of the questions for analyzing gender disparities (disaggregation by sex, coverage of issues which can highlight gender disparities)
- Consider the inclusion of NPS where relevant
- Consider if the focus of the information on morbidity among persons held in prison should be on the whole prison population or on people who use or inject drugs in prison.
- Consider to review data and sources of information on non-fatal overdose cases and emergency room visits by drug types including NPS
- Discuss issues how to capture the scale and integration of drug prevention interventions and services
- A clearer definitional framework of drug-related deaths may be formulated. The distinction between direct and indirect causes of death is currently not clear and is source of errors. Experts may reflect on the feasibility of collecting data both on deaths directly related to drug use and on deaths where the link with drug use is indirect. A more comprehensive and precise metadata framework would provide guidance on the type of data to report. Where appropriate a clear reference to the International Classification of Diseases and Related Health Problems (ICD-10) may be considered.
- Consider how to reflect aspects of poly drug use e.g., opioids and NPS in mortality reports and data
- Consider how to reflect limited information (geographical coverage, sub-national data) in the absence of national level information
- Consider the accessibility and availability of naloxone and other overdose prevention modalities

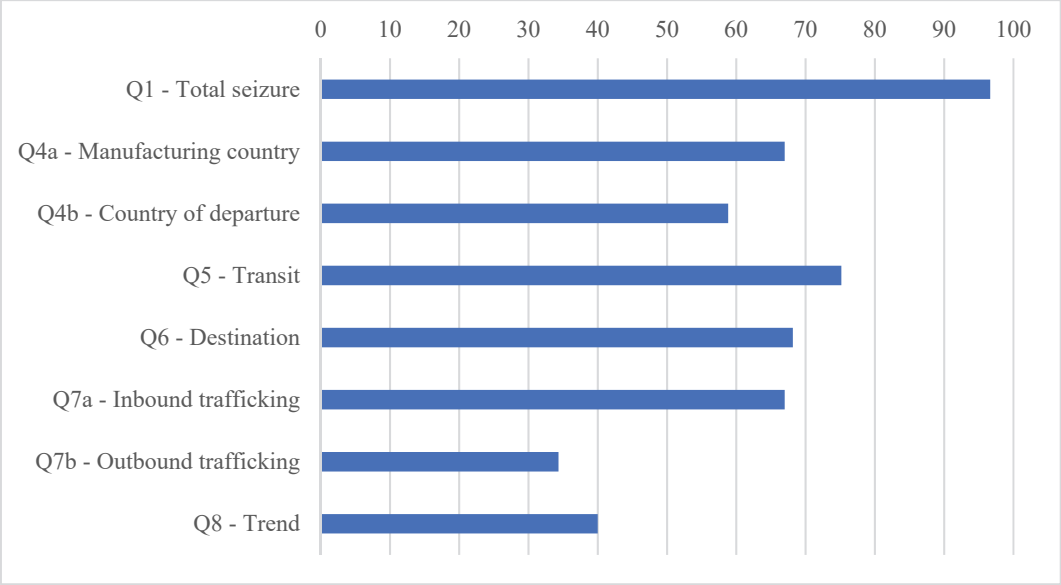
- Consider if and eventually how to cover access to pain medication – review existing data collection mechanisms and discuss gaps in the information with regard to access and availability of pain medication.
- Discuss how to report services for prevention of HIV, Hepatitis C, etc., in the community and prison settings.

5. Seizures and trafficking routes

5.1. Data availability

In the ARQ, information on seizures and trafficking routes is collected through questions 1 through 10. Figure 28 shows the average number of responses to key questions related to seizures and trafficking from 2010 to 2015. Close to 100 Member States provided data on seizures. The response rate to the questions on trafficking routes were lower - between 68 and 76 countries provided data on trafficking routes. The number of countries reporting inbound trafficking was 67, whereas the corresponding number for outbound trafficking was 34.

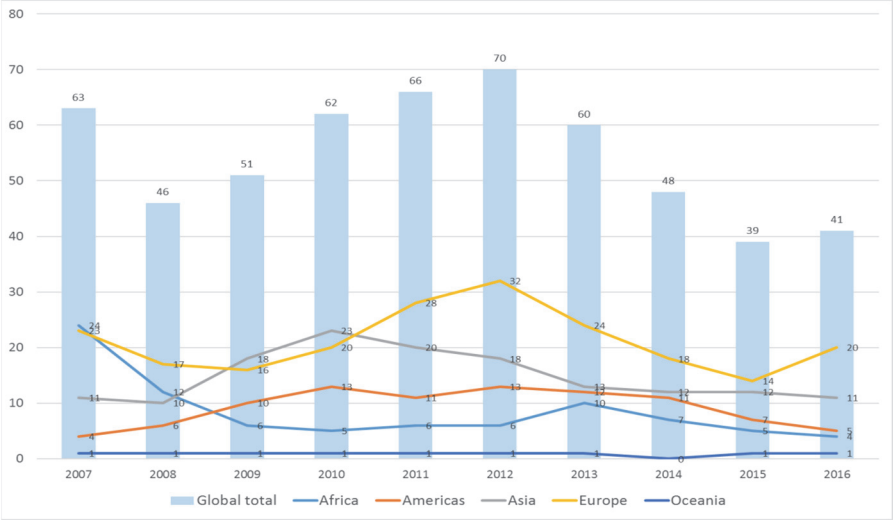
Figure 28: Average number of Member States that provided data on various questions on seizure and trafficking.



Source: ARQ Database 2010 - 2015

Aside from the ARQ, data on seizures is collected by UNODC, in a different format and via a separate reporting channel. Specifically, UNODC collects details of significant individual drug seizures (IDS) on a case by case basis, including details such as the date and place of seizure, the quantity and type of drug, and the associated itinerary (country of origin, destination, et cetera) and the mode of transportation. This reporting is mandated by the drug control conventions and, when reported comprehensively and systematically, can provide a rich source of data with high analytical value. **Error! Reference source not found.**29 shows trends in the availability of IDS data by region in recent years.

Figure 29: Number of countries reporting significant individual drug seizures (IDS), by region, 2007-2016

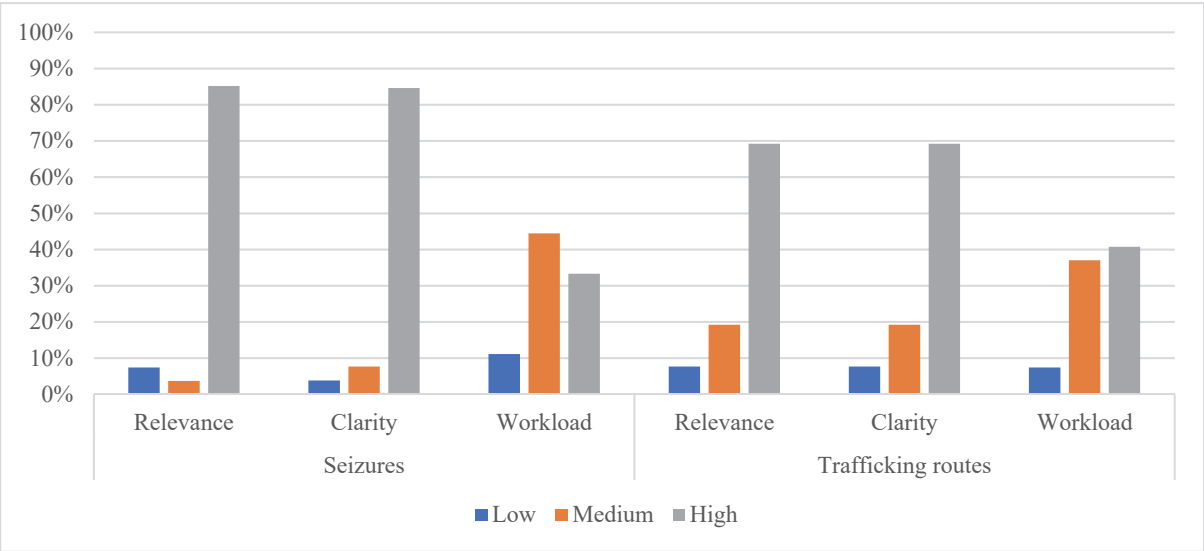


IDS Database

5.2. Relevance, clarity and workload

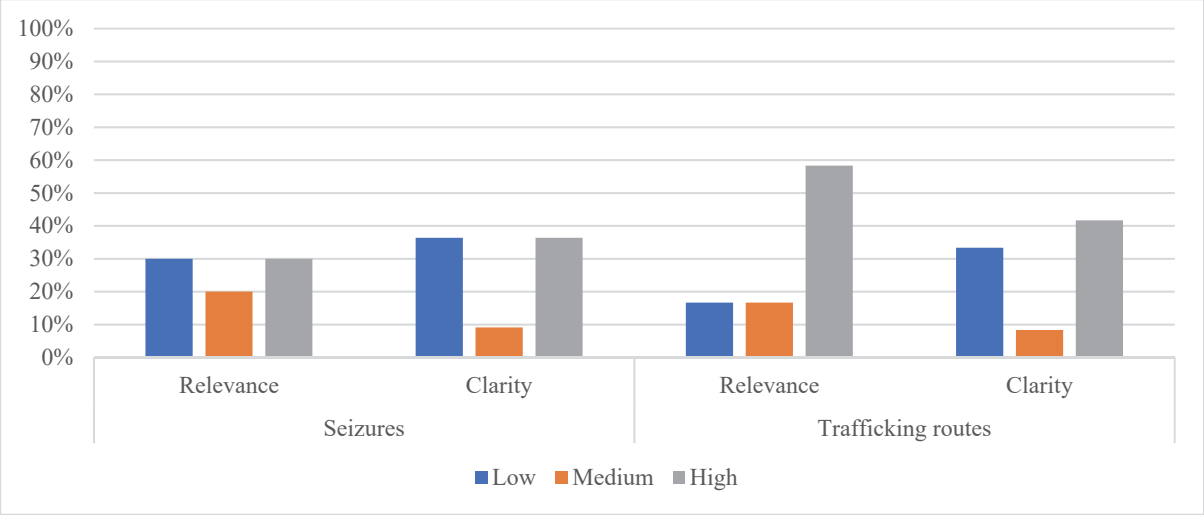
The ARQ sections related to seizures and trafficking routes were rated in terms of relevance, clarity and workload by Member States as well as other respondents. According to respondents from Member States, the section on seizures scored higher in relevance and clarity than the section on trafficking routes (Figure 30). In contrast, other respondents rated the section on trafficking routes higher in relevance and clarity than the section on seizures (Figure 31). At the same time, a relatively high proportion of respondents from non-governmental organizations rated the clarity of definitions, concepts and instructions of either section as low. Respondents from Member States indicated that the time and resources needed to complete the section on trafficking routes is higher than the workload needed for the section on seizures.

Figure 30: Distribution of ratings on relevance, clarity and workload of ARQ sections related to seizures and trafficking routes (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 31: Distribution of ratings on relevance and clarity of ARQ sections related to seizures and trafficking routes (Respondents other than Member States, 2017)

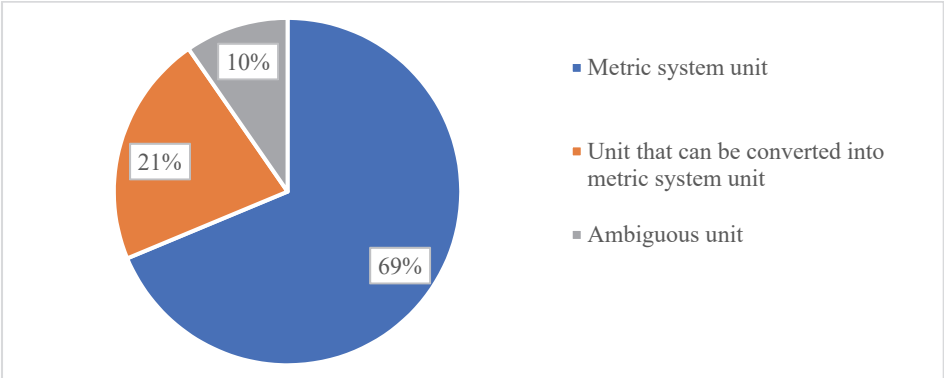


Source: ARQ Feedback Questionnaire, November 2017

5.3. Issues on data quality and use

Between 2010 and 2015, a total of 8,923 data points about seizure were submitted by member states. These data were submitted using a range of measurement units, and these units were classified into three major classes: metric system unit (e.g. gram, kilogram, pound, ounce, etc.), unit that can be converted into metric system unit (e.g. tablet, joint, pill, etc.), and ambiguous unit (e.g. bag, bottle, does, etc.). **Error! Reference source not found.**32 shows the proportion of data that were reported using each of these categories. Majority of the data were reported in metric system unit, a fifth were in unit that can be converted into metric system unit, and a tenth were in ambiguous units. It should be noted that data reported in ambiguous unit were of very limited use.

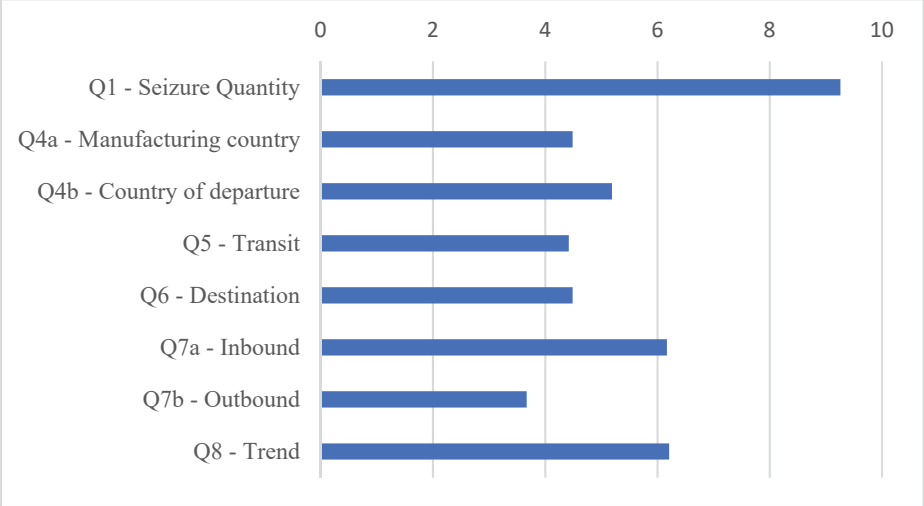
Figure 32: Proportion of data reported by type of measurement unit.



Source: ARQ Database 2010 -2015

68 or more countries reported at least one piece of data or information on seizure and trafficking routes, but in most cases, countries only provided data for a small subset of drug types. While seizure data is asked for 24 categories and trafficking routes data for 14 categories, on average, from 2010 to 2015, only 9.26 datapoints were provided by each country for seizure, and between 4.42 and 5.19 datapoints were provided for various questions on trafficking routes.

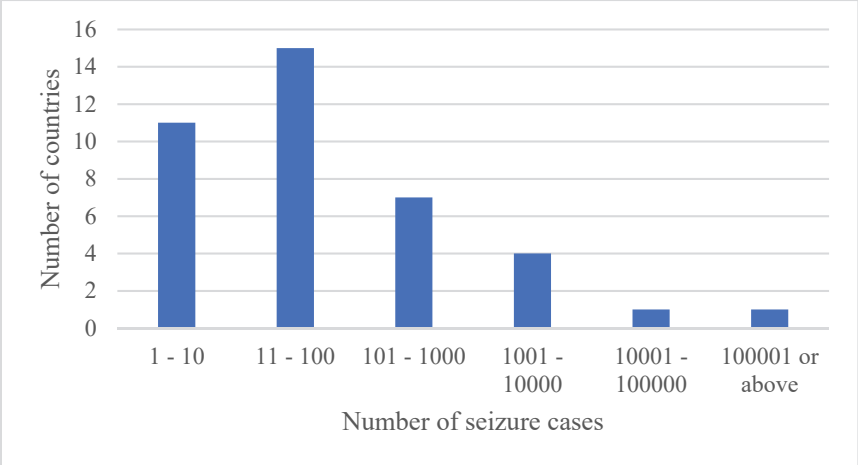
Figure 33: Average number of datapoints submitted by a given country in each of the question on seizure/ trafficking routes/ trafficking (out of 24 possible drug classes/ drug types for seizure data Q1; 14 for trafficking routes Q4-6; and 20 for trafficking Q7-8).



Source: ARQ Database 2010 - 2015

Although IDS are a valuable source of information, especially on trafficking routes, there is a lack of systematic reporting of such data, which limits their analytical usefulness. Different countries apply different criteria to establish what is considered as a "significant" seazure. Fig 2.35 shows the number of cases in 2015 that were reported by a given country, ranging from less than 10 for 11 countries to one country which provided details of more than 100,000 cases.

Figure 34: Frequency distribution of number of individual seizure cases reported by countries, 2015



Source: IDS Database

5.4. Overall challenges and strengths

- Seizure data at national level typically derive from multiple law enforcement agencies at national and sub-national level, including police, customs agencies, coast guard, and sometimes even military forces. In some countries domestic law enforcement forces exist at multiple levels: federal, province/state/territory, municipal, etc. Some seizures are effected in joint operations involving multiple agencies at the same time, sometimes

involving agencies from different countries. These issues often create difficulties in aggregating data at national and international level, as different agencies may have different classifications and recording practices, and there is often the risk that a given seizure is attributed to multiple agencies and therefore likely to be counted multiple times in national totals.

- The issue of attribution of a given seizure to a specific country is particularly challenging in cases of seizures made in international waters and when agencies of one country effect seizures in the territory of another country. The current ARQ contains the following recommendation: "Where applicable and if possible, please include seizures made outside the territory of your country by law enforcement agencies of your country (such as seizures in international waters), but only the seizures that have not been entrusted to, retained by or otherwise disposed of by agencies of another country." However, it is not clear if and how such a recommendation is considered when reporting the data.

- In some instances, drugs which are intercepted are destroyed or disposed of by traffickers before they can be confiscated. Such quantities (sometimes referred to as "losses") may or may not be included in reported seizure data, and this variation affects the comparability and interpretability of these data. Moreover, when such quantities are included, they inevitably represent rough estimations based on limited information.

- Seizure data typically reflect the information available to law enforcement agencies at the moment the seizure incidents were recorded. In many countries not all seizures are analyzed in a laboratory to ascertain the nature of the seized substance; often this step only happens at later stages of the criminal justice process (e.g. when called for by court proceedings), and law enforcement records may or may not be retroactively updated. As a result, the nature of seized substances as reported via the ARQ may not always be based on forensic evidence and be accurate.

- Moreover, for the same reasons as above, seizure data represent the bulk weight of seized consignments, which are almost never pure and typically contain significant levels of adulterants and bulking agents. Within a given country, the purity of seized consignments varies greatly, depending on the drug but also the level in the supply chain (retail, dealer, or larger "wholesale" transactions). Thus, the actual net weight of seized substances is very difficult to determine.

- The difficulties in accurately reporting the nature of seized substances are particularly accentuated in the case of synthetic substances, such as amphetamine-type substances and many new psychoactive substances, which are hard to conclusively identify without laboratory analysis.

- Aside from the issue of purity, seizure data referring to different drug types, or variants of the same drug type, can be difficult to aggregate in a meaningful way as the amount typically consumed in a single "dose" varies greatly according to the specific substance, from a few micrograms to doses in the range of one gram. For this reason, data combining different drug types reported in aggregate form are of limited value; at the same time, compiling internationally comparable datasets and regional totals requires aggregation into a relatively small number of standardized categories. This step can be done at international level but remains challenging.

- Seizures are the most widely used and widely available indicator on drug supply. However, in the first instance, they reflect law enforcement activities and can be influenced by factors such as resources available, efficacy and priority areas of law

enforcement agencies. Thus, although they are used as the best available proxy for drug supply, they also reflect to a large degree drug supply reduction.

- The questions on trafficking routes (Questions 4-6) address crucial information needs but in practice yield data which are difficult to use and interpret. The recommendation in the ARQ is that the data provided should be based on actual seizures but it is not always clear if this is the case. The concepts of a "transit" country, "production/manufacturing" country, "country of departure" and "transit" country are necessarily complex, not applicable to all seizures and often difficult to determine even in specific instances. In many responses it appears that the distinction between "production/manufacturing" country and "country of departure" is not faithfully maintained. Providing correct responses to these questions requires a significant effort of aggregation of case-specific records. Such case-specific records are collected separately via the IDS reporting channel, but the link may need to be reinforced. Without knowledge of the methodology used, the accuracy and meaning of the data received in response to questions 4-6 is very difficult to assess.

- Questions 7-8 request a breakdown of inbound/outbound seizures by mode of transportation: air/land/sea/mail. There may be a risk of ambiguity in that mail itself uses air, land and sea transportation. The questions allow the user to specify the breakdown in terms of percentages by default, but also in absolute quantities. This setup may lead to situations where it is unclear how the respondent interpret the question; in cases where countries opt for the default, it also does not give an indication of the scale of the set of seizures on which these data are based. It is plausible that countries are better placed to inform about incoming, rather than outgoing seizures, a pattern that is confirmed by the response rate for questions 7a and 7b (see **Error! Reference source not found.**).

5.5. Possible issues to be considered by experts for modifications and improvements

- Reorganize the reporting template to reflect different types of counting units: by weight (kg, pounds, etc.), volume (litres, cubic centimetres, etc.), consumption units (tablets, ampoules, joints, etc.) and other indivisible units (e.g. plants). Consider the provision of a pre-determined list of recommended units and the provision for extra information (metadata) in cases where the respondent uses other units.

- Consider asking for more information (metadata questions) on the methodology used to answer questions (especially 4-8) and the coverage (type of law enforcement agency) for questions 1-2.

- Consider making provision for more systematic and comprehensive reporting of NPS seizures.

- Consider asking, at infrequent intervals, a breakdown of seizure cases by size of seizure.

- Consider whether questions 4(a) and 4(b) both need to be retained separately.

- Consider whether questions 7(b) and 8 need to be retained.

- With respect to question 1, consider whether it is advisable to collect data in aggregated form, as in the case of amphetamine-type stimulants, hallucinogens and sedatives and tranquillizers.

- Consider setting out a clear subset of seizures (e.g. customs seizures only, seizures at borders only, cases where either the trafficker or the consignment has a recorded itinerary) which should be the basis for the responses to questions 4-6.

- Consider establishing a link between questions 4-6 and the reporting of significant individual drug seizures, by referring to the separate reporting channel for IDS while making provision for respondents to provide case by case data, in support of their responses to questions 4-8.
- In question 7, consider asking simply for absolute quantities rather than percentages. Clarify how seizures by mail should be counted (it would be sufficient to declare, for example, that the category "mail" takes precedence in cases of ambiguity, i.e. seizures using the postal service are counted under "mail" but not under any of the other three categories).

6. Price and purity

6.1. Data availability

In ARQ Part IV, there are four key questions on price and purity. Figure 35 shows the average number of member states that reported data on each of these questions. From 2010 to 2015, on average, approximately 70 member states reported data on price. The response rate for question on purity was much lower – only 30 member states reported data on wholesale purity and 35 reported on street purity.

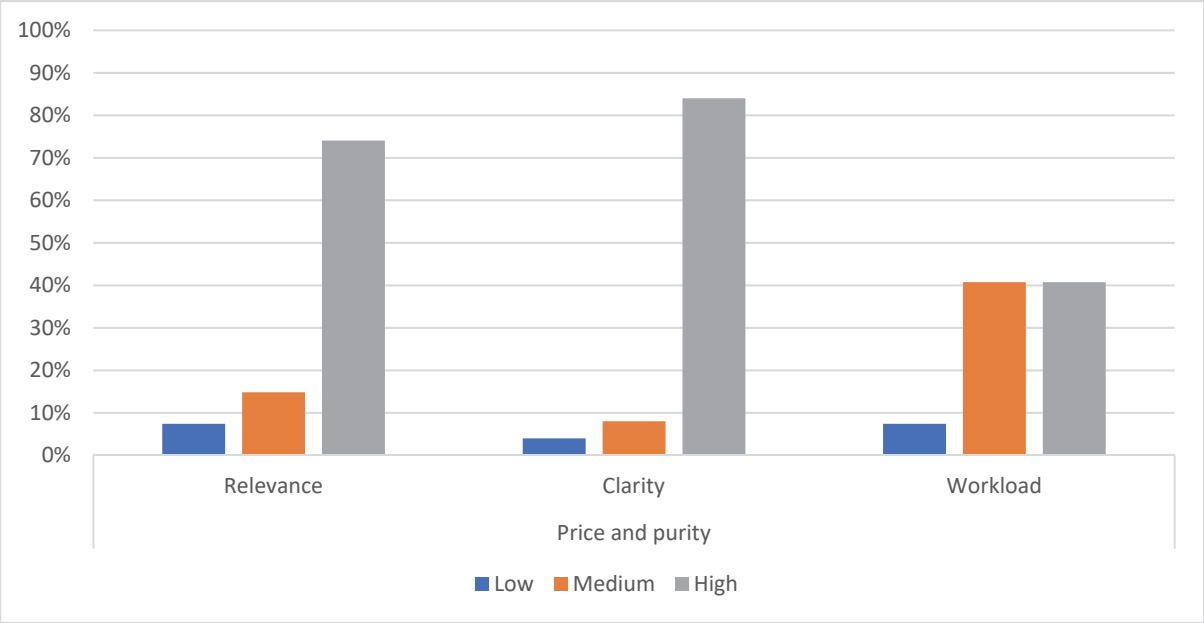
Figure 35: Average number of member states that reported data on various questions on price and purity.

Source: ARQ Feedback Questionnaire, November 2017

6.2. Relevance, clarity and workload

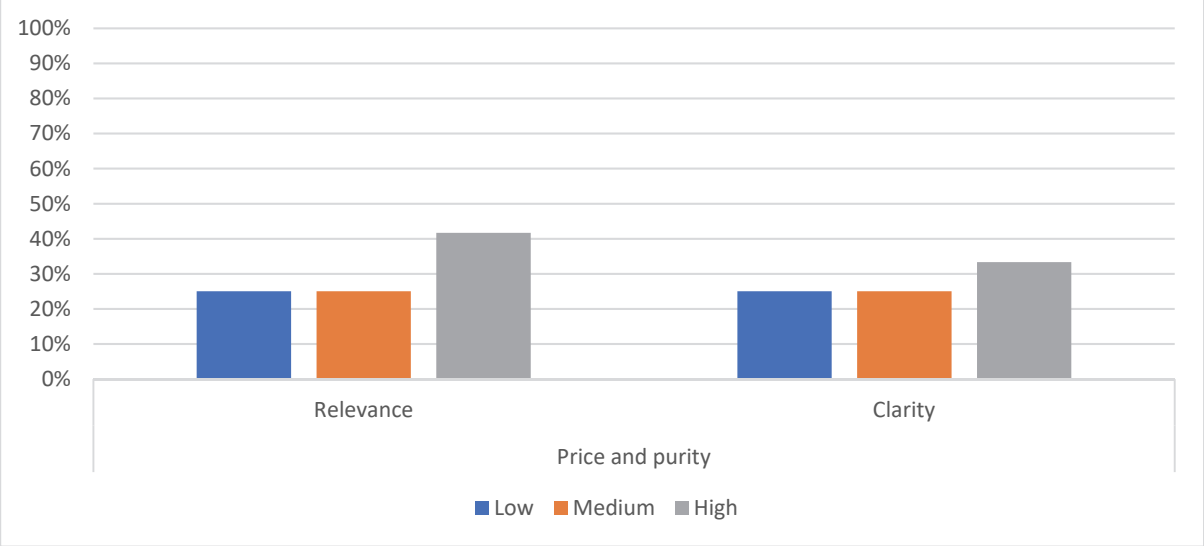
The ARQ section on price and purity was rated in terms of relevance, clarity and workload by respondents from Member States, as well as respondents from non-governmental organizations, civil society and academia. The clarity of the section was rated as very high by a large proportion of Member States, while fewer rated it as highly relevant (Figure 36). In general, a considerably lower proportion of respondents from non-governmental organizations rated the questions on price and purity as relevant and clear (Figure 37). In terms of workload, the majority of respondents from Member States rated the time needed to collate data for this section as medium to high.

Figure 36: Distribution of ratings on relevance, clarity and workload of the ARQ section on price and purity (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 37: Distribution of ratings on relevance and clarity of the ARQ section on price and purity (Respondents other than from Member States, 2017)

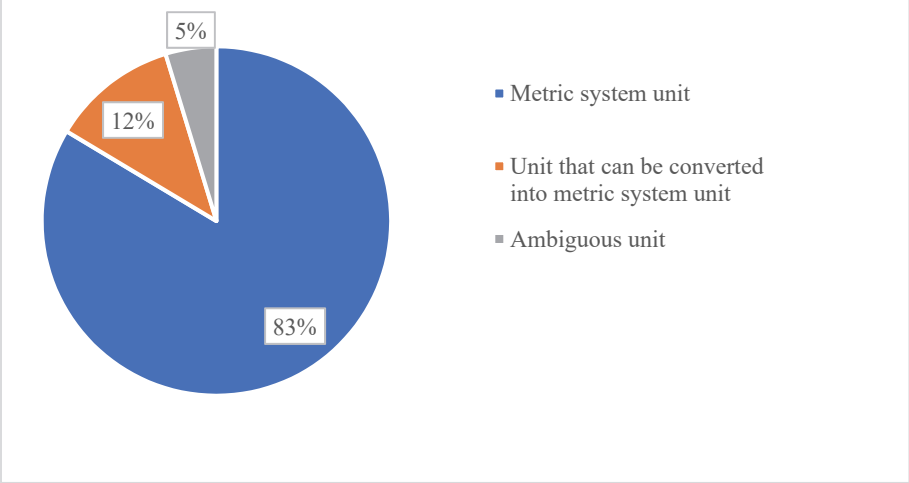


Source: ARQ Feedback Questionnaire, November 2017

6.3. Issues of data quality and use

Between 2010 and 2016, a total of 4,703 data points about price were submitted by member states. Similar to the seizure data, these data were submitted using a range of measurment units which were classified into three classes – (1) Metric system unit, (2) Unit that can be converted into metric system unit, and (3) Ambiguous unit. Overall, over 80% of the data were reported in metric system unit and only 5% were reported in ambiguous unit.

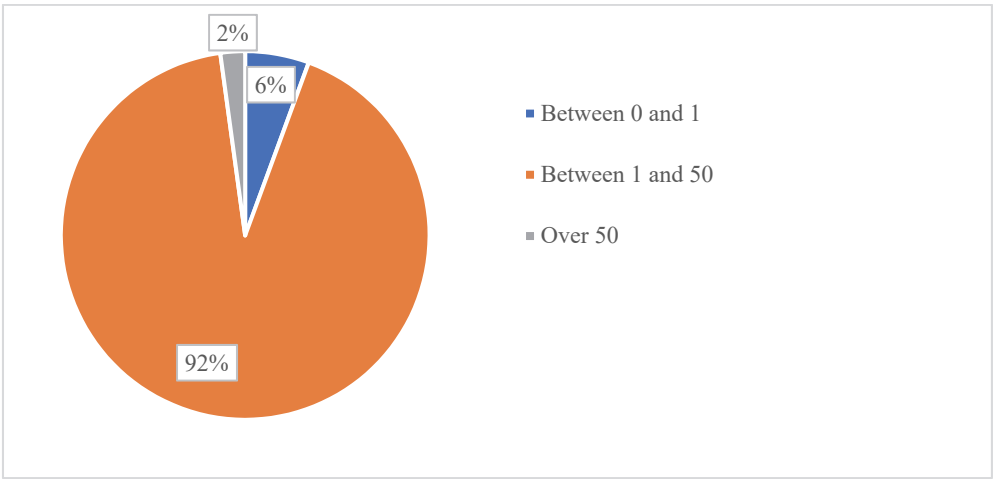
Figure 38: Proportion of data that were reported in various unit classes.



Source: ARQ Database 2010 - 2015

To further assess the quality of the data, the ratio of street to wholesale price were calculated. A ratio below 1 (i.e. street price being lower than wholesale price) and over 50 (i.e. street price being 50 times or more higher than wholesale price) were deemed as unlikely. Figure 39**Error! Reference source not found.** shows the proportion of data with a ratio below 1, between 1 and 50, and over 50. Overall, the vast majority (92%) of data were within the range between 1 and 50.

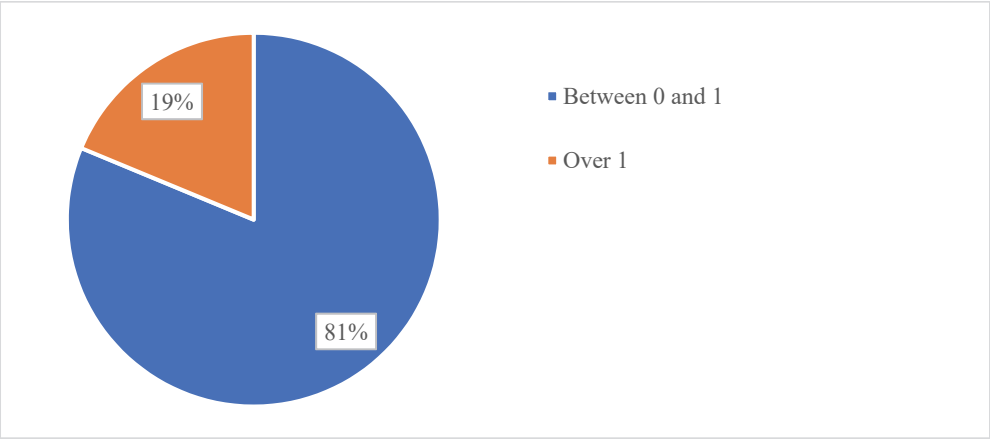
Figure 39: Proportions of street to wholesale price ratio that were below 1, between 1 and 50, and over 50.



Source: ARQ Database, 2010 - 2015

Similar to the price data, the ratio of street to wholesale purity were calculated. A ratio over 1 was deemed as unlikely (i.e. purity of street drug being higher than wholesale drug). Figure 40 shows the proportions of street to wholesale purity that were below and over 1. Overall, nearly 20% of the purity data demonstrated a ratio over 1.

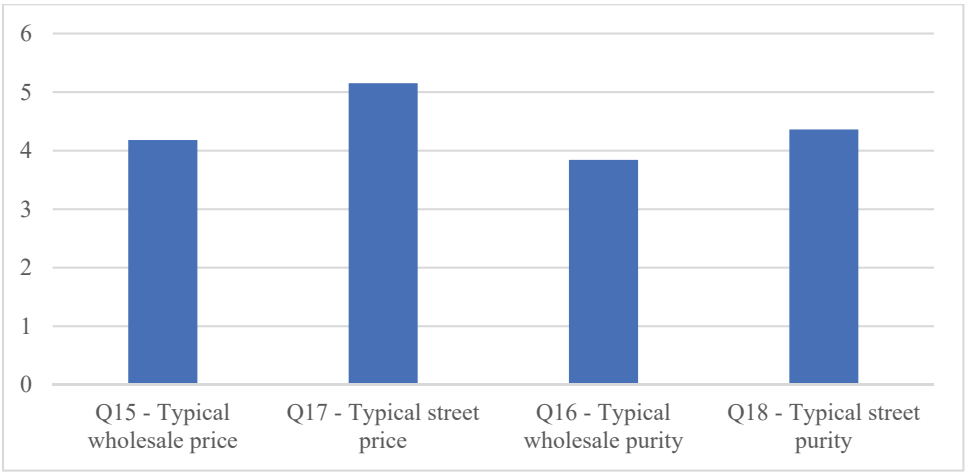
Figure 40: Proportions of street to wholesale purity that were below and over 1.



Source: ARQ Database, 2010 - 2015

Similar to seizure and trafficking route data, most countries provided price and purity data on a limited subset of drugs. Against a list of six drug classes and sixteen drug types, between 2010 and 2015, on average countries provided wholesale price for 4.2 drug categories , 5.2 for street price, 3.8 for wholesale purity and 4.4 for street purity.

Figure 41: Average number of datapoints submitted by a given countries on each of the price/ purity questions (out of 14 possible drug classes/ drug types).



Source: ARQ Database, 2010 - 2015

6.4. Overall challenges and strengths

- Price and purity data can be powerful indicators of drug supply and of changes in the illicit market. Unfortunately the overall quality of information received in response to these questions is low.
- Price data are reported in a variety of purchase units, some of which are difficult to interpret and quantify, while in some cases the purchase unit is not clear.
- Price data is requested at retail and wholesale level. In order to faithfully represent the "discount factor" across various levels of the supply chain, these data are most useful when they accurately reflect the scale of transactions actually occurring. Sometimes the responses received appear to reflect the result of purely arithmetic conversions between retail (typically gram) levels and higher levels; such conversions (sometimes

used to estimate the "street value" of large seizures) do not add information. In some cases the values reported for retail and wholesale appear to be interchanged; in other cases they coincide.

- While the concept of a "retail" transaction is not problematic, transactions at higher levels of the supply chain may vary greatly in scale. For some countries there may be very few transactions occurring above the level of 500 grams, for example. Thus the concept of "wholesale" needs to be flexible to accommodate different countries reality but comparisons need to be made with caution.

- By the same token, price data are most useful when they are reported in the currency actually used for the illicit transactions. In some instances, prices are converted to US dollars by respondents even in cases when local transactions are unlikely to occur in US dollars; in other cases the currency being used is not specified.

- Price data may be sourced from a limited dataset based on undercover purchases (or seizures of consignments to which a price can be attributed), but many countries do not conduct such undercover purchases on a systematic basis and therefore the responses rely on intelligence or other information gleaned from investigations. Hence the degree of statistical reliability may vary greatly, and the accuracy of the reported data is often not clear.

- Prices of drugs may also vary on the specific forms in which a given substance is marketed. For example, methamphetamine can be sold in powder, tablet and crystalline form, and prices and purchase units vary accordingly. This introduces a degree of specificity which may be too detailed for other indicators (such as prevalence or even seizures) but relevant for price data. This issue creates complications in terms of maintaining coherence and comparability in the classifications used for international statistics.

- Respondents are requested to provide "common ranges" for both price and purity data, in addition to typical values. The request for a range is sometimes interpreted to refer to the most extreme values (the minimum and the maximum values in the sample); but since the range typically includes outliers, it is not very useful, especially if the typical value is not provided.

- Purity data are typically available for a limited subset of seizures (e.g. those cases which were sent to laboratories on the basis of a request arising from court proceedings), but this sample may not always be representative of the market and may be too small to yield statistically reliable data. In most countries the majority of seizure cases occur at the retail level, therefore the reliability of the sample for wholesale prices may be limited. In many cases the purity data may be provided by certain authorities, such as forensic labs, independently of the law enforcement agencies which provide price data; depending on the flow of information in the particular circumstances, such personnel many not always be in a position to distinguish between retail and wholesale.

- The concept of purity is not applicable in the same way to all drug types. While substances such as cocaine and heroin are usually "cut" to different levels of purity as they move along the illicit supply chain, the possibilities for altering cannabis are much more limited, and the "strength" of cannabis herb or resin depends on the content of tetrahydrocannabinol within the given cannabis product. Given this caveat, the question on purity of cannabis is sometimes misinterpreted. A similar argument applies to opium. For substances sold in tablet form, it is more natural, easier and probably more statistically reliable to represent the "strength" of such products in terms of the

psychoactive content of single tablets. In all these cases, the distinction between retail and wholesale level is not very useful.

- Price and purity data are not independent indicators; changes in supply can in principle be reflected in changes in purity, in price, or both, and it may be that a drop in price is offset by a change in price. Price data as requested and reported is expressed using purchase units "in bulk", i.e. without taking into account purities; in an ideal scenario, the best indicator of drug supply is the purity-adjusted price (price per pure gram). Since the interaction occurs at a case-by-case level, a purity-adjusted price is much more reliable if calculated on a case-by-case basis (with matching price and purity datapoints) rather than using aggregate/typical values.

6.5. Possible issues to be considered by the experts for modifications and improvements

- Consider the inclusion of structured metadata questions to better understand:
  - Whether price data is based on ad hoc intelligence or systematic data collection
  - The size of the samples upon which price and purity data are based
  - The criteria used to classify individual seizures/transactions/cases as "retail" or otherwise
  - Whether data for price and (separately) purity can be considered representative of the entire market or else correspond to special circumstances
- Consider making allowance for the provision of price-purity data at a case-by-case level, in a format similar to that used for IDS.
- Ensure that the formulation of the questions encourages respondents to faithfully reflect the level of sale. It should be clear that the term "wholesale" is not meant to be prescriptive, and the term itself could be revisited. Also, the term "purchase unit" rather than "unit" may better convey the intended meaning. Countries could have the option to select the purchase units from a predetermined list, which however should span a broad range of values.
- Facilitate the specification of currency for price data, for example by means of a drop-down menu.
- Give more precise guidelines for the reporting of "common ranges" for price and purity (for example as the 10th and 90th percentiles of the underlying samples)
- Consider asking for ad hoc concepts such as morphine content (for opium), tetrahydrocannabinol content (for cannabis) and psychoactive content per tablet in a separate format/question.

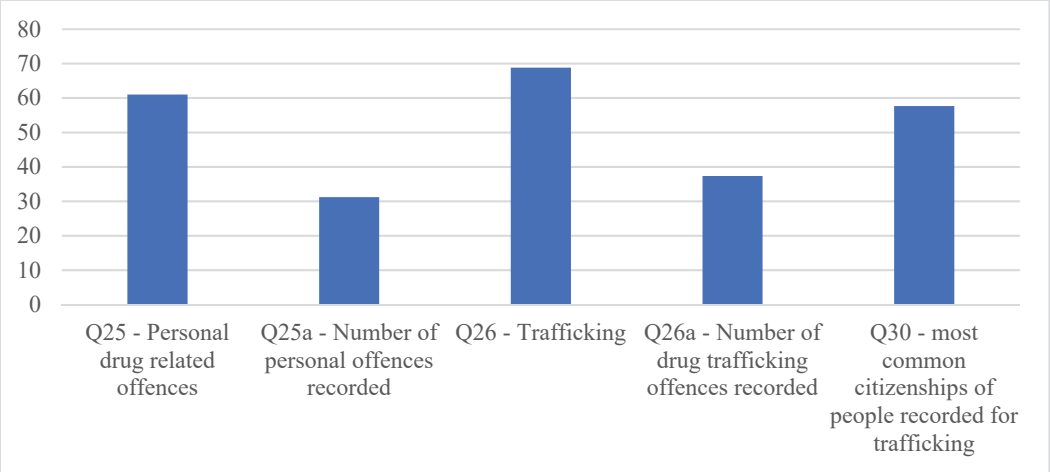
7. Drugs and the criminal justice system

7.1. Data availability

In the ARQ, information on drug-related crime is collected through questions 25-31 of Part IV. Three main types of data are collected: on offences related to personal consumption, those related to drug trafficking and on distribution by citizenship of those arrested for drug trafficking. From 2010 to 2015, on average, significant number of member states provided data on persons brought into formal contact for personal consumption, drug trafficking and on the citizenship distribution

of the latter, while data availability is much lower in relation to the number of recorded offences (Figure 42).

Figure 42: Average number of member states that provided data on personal drug related crime.

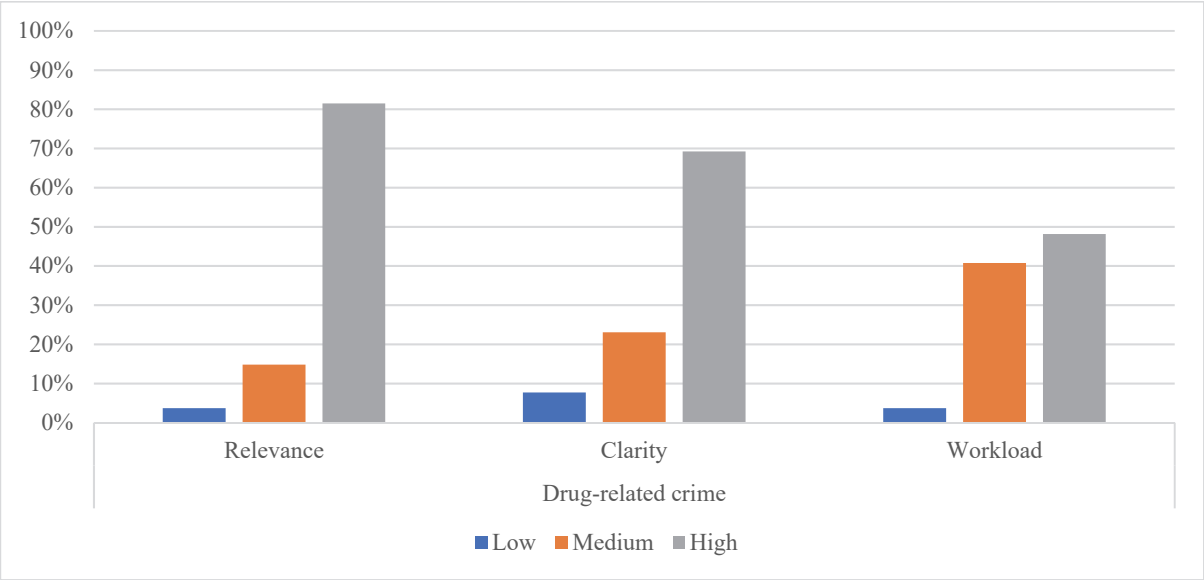


Source: ARQ Database, 2010 - 2015

7.2. Relevance, clarity and workload

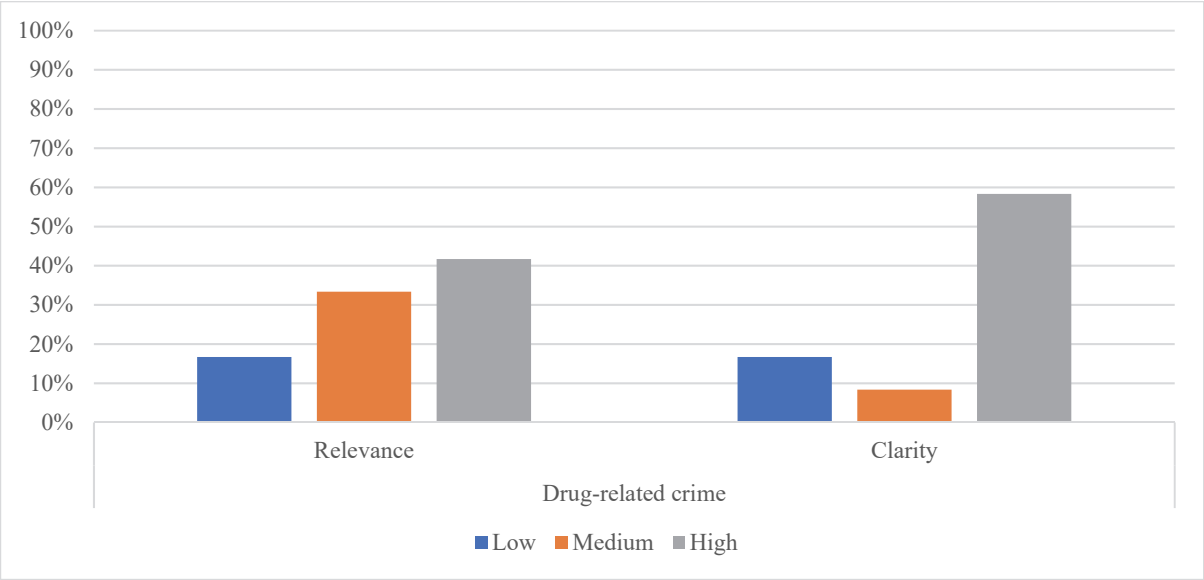
In general, respondents from Member States rated quite high the section on drug-related crime high in terms of relevance and slightly lower in terms of clarity (Figure 43). In contrast, respondents from civil society and the academic community suggested this section to be less relevant, yet a high proportion indicated the concepts, definitions and response categorizations to be clear (Figure 44). Just under half of respondents from Member States reported that the workload needed to complete this section is high.

Figure 43: Distribution of ratings on relevance, clarity and workload of the ARQ section on drug-related crime (Respondents from Member States, 2017)



Source: ARQ Feedback Questionnaire, November 2017

Figure 44: Distribution of ratings on relevance and clarity of the ARQ section on drug-related crime (Respondents other than from Member States, 2017)

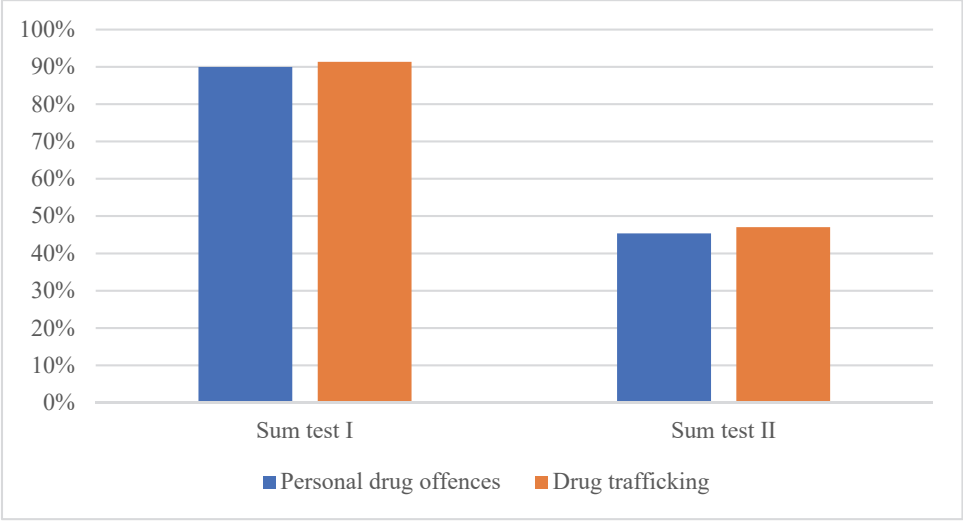


Source: ARQ Feedback Questionnaire, November 2017

7.3. Issues of data quality and use

Two "Sum tests" were performed to examine the consistency of the reported data. First, for each drug, the reported total number of offenders were checked against the sum of male and female offenders. The data was considered consistent if these two numbers matched. Second, the reported total number of offenders for "any illicit drugs" was checked against the sum of each individual drug. For the first test, over 90% of the data was consistent, indicating that the gender disaggregation was consistent with the total reported number. For the second test, just below 50% of the data was deemed consistent. In more than 50% of the data, the total number of offender for "any illicit drugs" did not match the sum of all individual illicit drugs.

Figure 45: Proportion of data that passed the two sum tests.

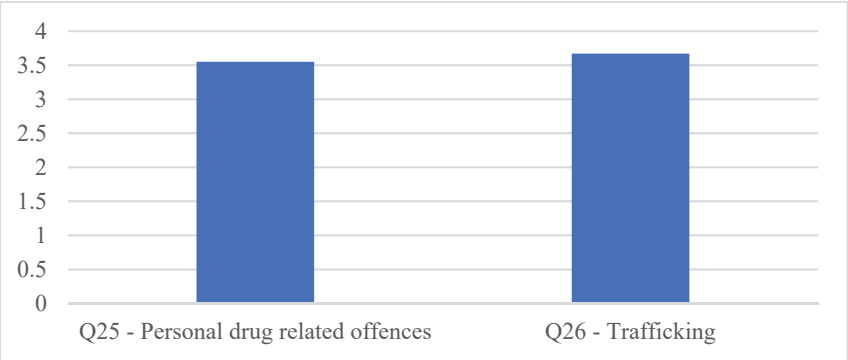


Source: ARQ Database, 2010 - 2015

For personal drug related offences and trafficking, data on persons brought into formal contact the questions ask for data disaggregated by five drug classes. When providing these data, countries

were often able to disaggregate data on persons arrested/suspected by the type of drug possessed or trafficked: on average, they were able to provide data disaggregated respectively by 3.6 and 3.7 drug types out of five.

Figure 46: Average number of datapoints submitted by a given country for each of the two questions on drug related crime (out of a possible 5 drug classes).



Source: ARQ Database, 2010 – 2015

7.4. Overall challenges and strengths

- Data collected in the current ARQ provide information on the number of persons brought into formal contact (persons arrested/cautioned/suspected) because of drug related crimes. Notably, a distinction is made between persons in contact with the criminal justice system because of offences related to personal consumption vs trafficking. These data are collected separately for the main drug types and this allows drawing a detailed picture of drug related crime detected by law enforcement authorities. While keeping in mind that detected/reported crime typically represents a fraction – of varying magnitude - of the criminal offences taking place in any given country, these data are useful to assess trends and patterns of drug–related crimes and of law enforcement activities to contrast them.

- Comparability and interpretability of data on drug related crime – both across time and across countries – is affected by different legislation and practices in classifying drug-related crimes as pertaining to personal possession/consumption or trafficking. In this regard, the gradual implementation of the International Classification of Crime for Statistical Purposes (ICCS) should improve comparability and consistency of data on crime, including the various categories of drug-related offences.

- Data on the distribution of persons arrested/suspected for drug trafficking by citizenship are often of limited use either because countries are not able to provide this disaggregation or because the data - when available - tend to mirror the involvement of various population groups in street-level drug trafficking rather than providing information on transnational drug trafficking and related networks.

- Information is missing on response to drug related crime and on how to reduce it through prevention and/or rehabilitation of offenders.

7.5. Possible issues to be considered by the experts for modifications and improvements

- Improve the relevance of the questions for analyzing gender disparities (disaggregation by sex, coverage of issues which can highlight gender disparities)

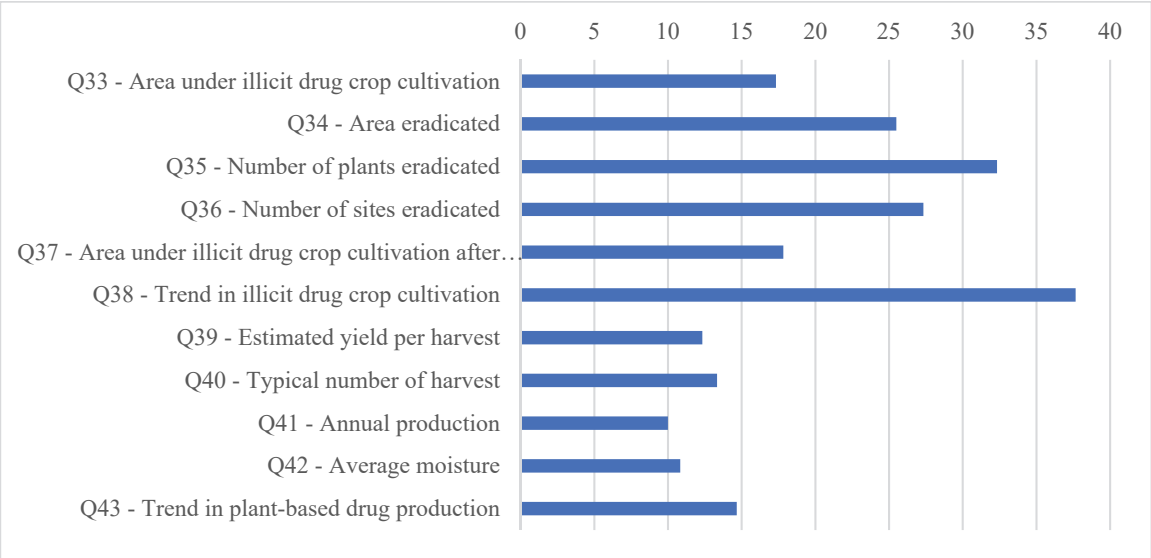
- Examine the inclusion of appropriate data to collect information on the response and prevention to drug related crime. In particular, data on convictions for drug-related crimes can provide information on the efficiency of the criminal justice system, especially when compared with data on persons in formal contact with law enforcement agencies. Consider the implementation of the ICCS as common framework for producing statistical data on crimes by all national criminal justice institutions which is expected to further enhance the comparability and consistency of such data.
- Consider the reduction of the details currently included for the first step of the criminal justice system and an expansion to consider the different steps of the criminal justice system (from crime recording, arrest to incarceration). Experts may explore the following topics for inclusion:
- number of law enforcement officials member of police forces/units specialized on countering drug trafficking.
- type of conviction given to drug offenders and level of recidivism of drug offenders in view of providing information on effectiveness of sanction schemes and policies (such as number of convictions, length of sentences, alternatives to incarceration, re-offenders)
- Persons in detention for drug related crime and rehabilitation programs
- In consideration of limited relevance of data on persons brought into formal contact by citizenship experts may consider whether to discontinue the collection of such data.

8. Cultivation and production

8.1. Data availability

Eleven questions on ARQ Part IV focus on cultivation and production. In general, the response rate to questions in this section is low (Figure 47). Among countries that response to at least one of the 11 questions, the average number of responses was 4.23.

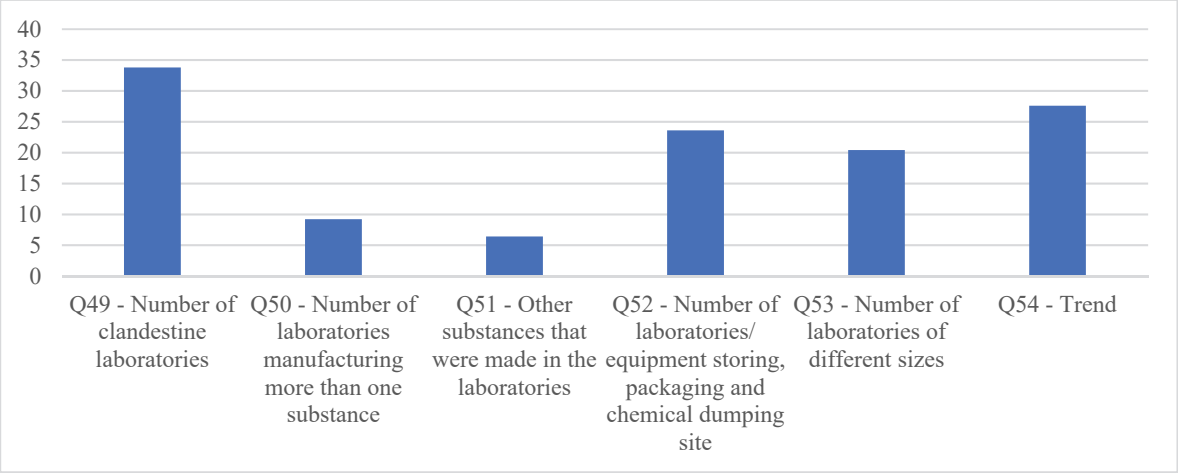
Figure 47: Average number of member states that provided data on the 11 questions on cultivation and production.



Source: ARQ Database, 2010 - 2015

In the ARQ Part IV, questions 49 to 54 collect key information about illicit manufacture. Figure 48 shows the average number of responses from 2010 to 2015. The number of responses in this section is in general low (less than 30 except for Q49).

Figure 48: Average number of countries that provided data on illicit manufacture from 2010 to 2015.

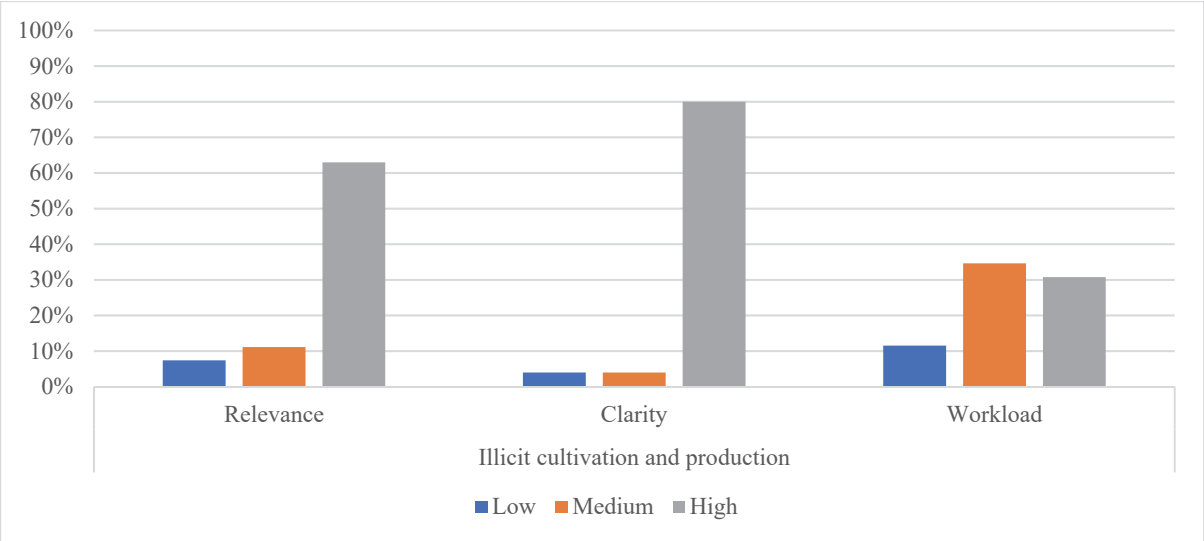


Source: ARQ Database, 2010 - 2015

8.2. Relevance, clarity and workload

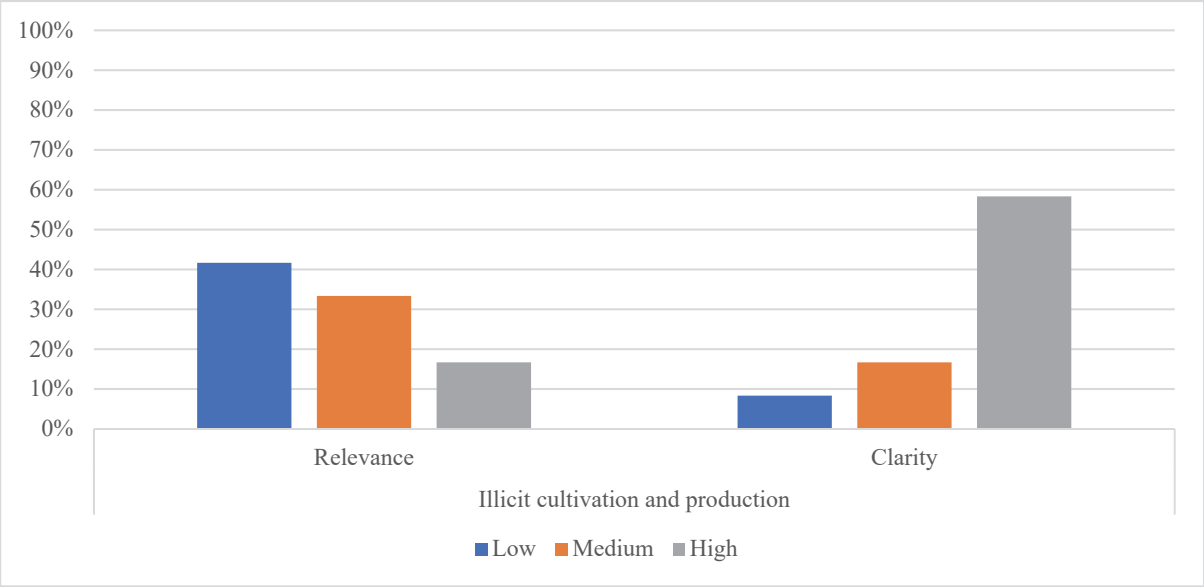
The ARQ section on cultivation and production was rated in terms of its relevance, clarity and workload by respondents from Member States and respondents from civil society, the academic community and non-governmental organizations. Overall, a very high proportion of Member States rated the definitions, concepts, instructions and response categorizations of this section as clear, while a lower proportion rated the section as highly relevant (Figure 49). Feedback by other respondents from non-governmental organizations reported the relevance of this section to be low (Figure 50). Compared to other ARQ sections, respondents from Member States indicated the time and resources needed to complete questions on illicit cultivation and production is relatively low.

Figure 49: Distribution of ratings on relevance, clarity and workload of the ARQ section on illicit cultivation and production (Respondents from Member States, 2017)



Source: ARQ Database, 2010 - 2015

Figure 50: Distribution of ratings on relevance and clarity of the ARQ section on illicit cultivation and production (Respondents other than Member States, 2017)



Source: ARQ Database, 2010 – 2015

With respect to the section related to illicit manufacture and clandestine laboratories, the section was rated by Member States as very clear based on its definitions, instructions and response categorizations, while relevance was rated slightly lower. The workload foreseen by respondents from Member States was rated as medium to high. According to feedback from other respondents, including non-governmental organizations and the academic community, the relevance of the section is medium, even though the clarity of the section was rated as very high.

Figure 51: Distribution of ratings on relevance, clarity and workload of ARQ section on illicit manufacture and clandestine laboratories (Respondents from Member States, 2017)

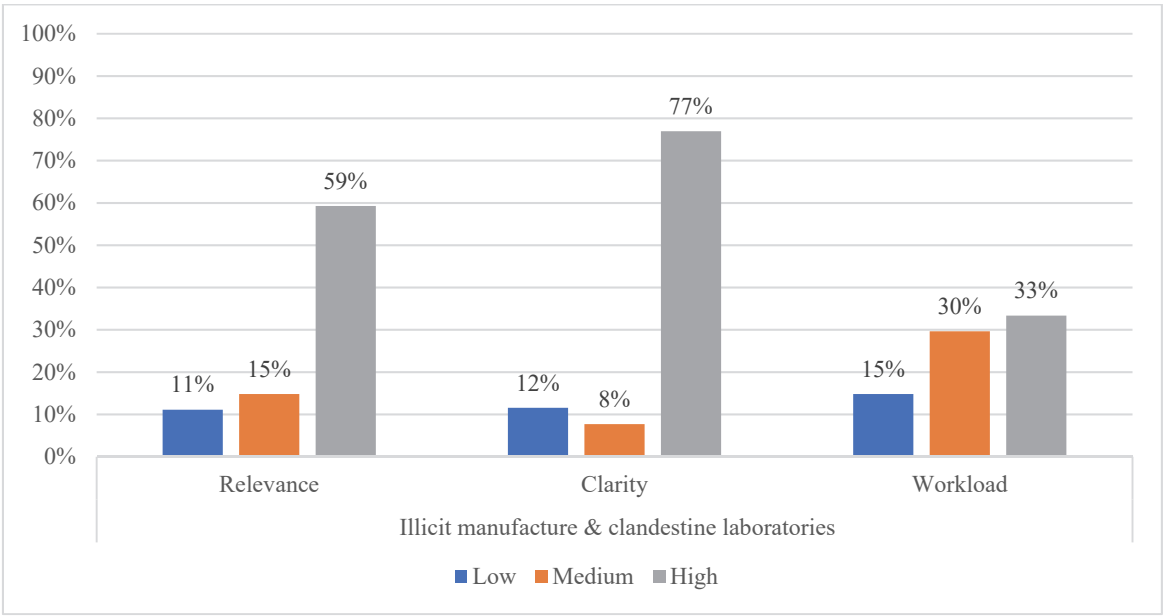
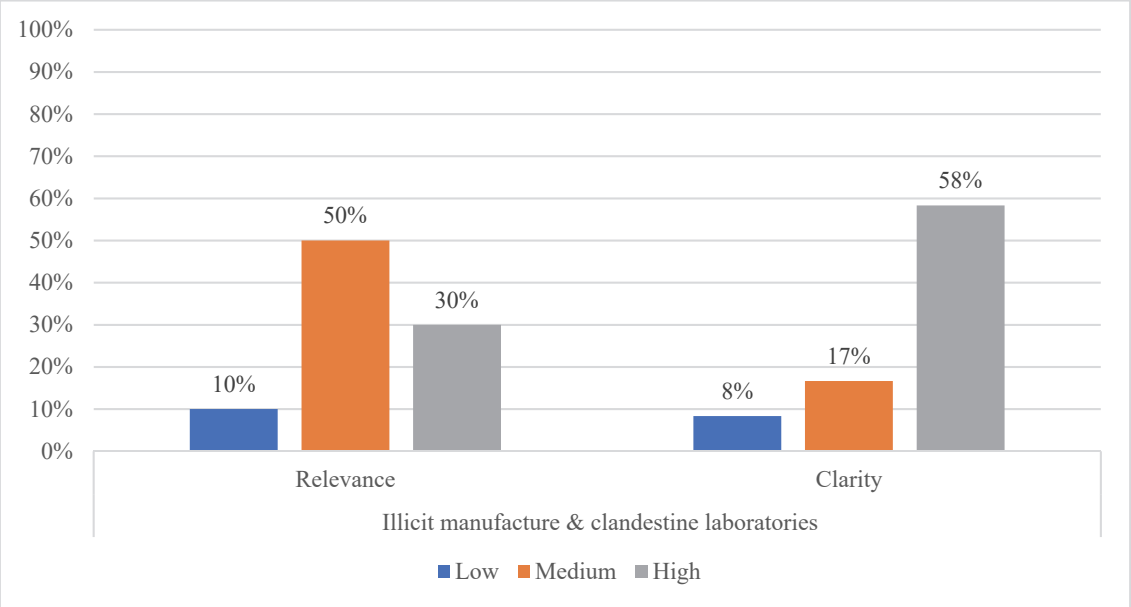


Figure 52: Distribution of ratings on relevance, clarity and workload of ARQ section on illicit manufacture and clandestine laboratories (Respondents other than Member States, 2017)



8.3. Overall challenges and strengths

- Cannabis cultivation affects virtually all countries worldwide; hence questions 32-38, insofar they relate to cannabis, are highly relevant to all countries. The global illicit supply of opiates derives predominantly from illicit opium cultivation in a small number of countries, but this phenomenon also affects a broad range of other countries, albeit on a smaller scale. On the other hand, cultivation of coca bush is restricted to a handful of countries in South America.

- The questions on cultivation request information separately on indoor and outdoor cultivation of cannabis. Indoor cultivation of cannabis is increasingly important, but is very hard to measure, given that the default techniques based on aerial or satellite imagery cannot be used. The standard unit of measurement for cultivation, namely area (hectares), is also not appropriate for indoor cultivation. Although the current ARQ provides for reporting of eradication of indoor cultivation, it does not make provision for any estimation of the extent of indoor cultivation, and even reporting on production of cannabis is restricted to products deriving from outdoor cultivation.

- In the current ARQ, eradication can be reported in terms of number of plants, number of sites and area eradicated. Although this flexibility serves to maximize responses, in cases where a country uses more than one unit it is not always clear from the responses, whether the different values are cumulative or simply alternative ways of measuring the same activity. Moreover, occasionally the eradication of plants is also reported under seizures, in question 1.

- Questions 39-42 focus on yield and production. Providing reliable responses to these questions requires in-depth studies such as yield surveys. In most countries with large-scale cultivation of opium poppy and coca bush, this information is available from detailed technical reports presenting the results of dedicated crop monitoring projects, most of which are run jointly by governments jointly with UNODC.

- Questions 49-54 refer to “clandestine laboratories”; aside from locations where substances are synthesized, this is intended to encompass establishments which are associated with various stages of the production chain, including activities such as tableting, storage of equipment and also “dumpsites”. The term “kitchen laboratory” is used for improvised arrangements, potentially inside residences, where synthesis of small quantities occurs for personal use. Although data on such establishments can be of interest, the term “laboratory” applied to these establishments occasionally causes confusion.

- Frequently, a given laboratory may be associated with the manufacture of several substances. The current formulation of the questions 49-54 requires a breakdown of laboratories by substance, and attempts to make provision for multiple substances associated with a single establishment. In practice, the data received in response to this question is difficult to interpret; the current formulation does not cater for the various possibilities in a systematic fashion and can be improved.

- Question 53 requests a breakdown of synthesis laboratories based on rather complex criteria, including the yield of a typical manufacture cycle.

- Questions 58-65 request very specific information, mainly on the process of manufacture, such as information on precursor chemicals, raw materials and reagents used, and associated conversion ratios. This area is covered, albeit is different ways, in reporting to the International Narcotics Control Board.

8.4. Possible issues to be considered by the experts for modifications and improvements

- Consider whether the ARQ is the best vehicle to collect data on yield and production of plant-based drugs.

- Consider the removal of the request for area eradicated with reference to indoor cultivation of cannabis (where number of sites or plants may be more appropriate).

- Reconsider the inclusion of questions 58-65

- Consider the addition of a question on estimation of indoor cultivation and/or cannabis production deriving from indoor cultivation. Such an addition would require careful deliberations and recommendations in terms of units to be used, which could include number of plants, number of sites, quantity of cannabis products, or potentially other more sophisticated approaches.

- Consider how to eliminate the potential for overlap among questions 34-36, as well as with seizures of plants reported under question 1.

- Consider whether the term “laboratory” is appropriate for the broad range of establishments of interest in the questions on illicit manufacture.

- Consider a reformulation of questions 49-54, or more precise instructions, to facilitate systematic reporting that can clearly represent multiple drugs associated with the same laboratory.

9. Illicit supply chain and organized crime

9.1. Links between drug trafficking, corruption and other forms of organized crime

9.1.1. Scope

The current ARQ does not include topics related to the links between the drug trafficking and other forms of organized crime, corruption and terrorism. In view of the UNGASS outcome document[8], experts may discuss how the ARQ could collect evidence (qualitative and quantitative) on the nature and extent of these connections[9].

9.1.2. Challenges

- Organized crime, corruption and drug trafficking are all clandestine phenomena which are hard to measure; the interactions among them require a level of detail which is even harder to obtain.
- Aside from the hidden nature of these phenomena, the difficulties are also conceptual: an organized crime group may range from three persons to a vast network, and often it is hard to differentiate whether two or more groups are sufficiently interconnected to be considered as one. Thus measuring organized crime by the number of groups has limited value; the number of people involved in organized crime (or members of some organized crime group) is probably more appropriate.
- Corruption is challenging to measure, as it involves two acquiescing parties neither of whom are likely to report the crime, and often straddles the border between the criminal underworld and people in authority. One of the best source of information on corruption lies in population and business survey data, but these are resource-intensive and do not provide information on corruption related to drug trafficking.

9.1.3. Potential sources and types of information

The ARQ feedback questionnaire requested input on potential indicators and data sources relevant to this topic. This feedback is summarized in the table 1.

[8] See UNGASS Outcome Document, Operational Recommendation 3.k: Respond to the serious challenges posed by the increasing links between drug trafficking, corruption and other forms of organized crime, including trafficking in persons, trafficking in firearms, cybercrime and money-laundering, and, in some cases, terrorism, including money-laundering in connection with the financing of terrorism, by using an integrated, multidisciplinary approach, such as through promoting and supporting reliable data collection, research and, as appropriate, intelligence- and analysis-sharing to ensure effective policymaking and interventions;

[9] The link between drug trafficking and money laundering is addressed in section 9.3

Table 1: Feedback via the ARQ Feedback Questionnaire on "Links between drug trafficking, corruption and other forms of organized crime (including trafficking in persons, trafficking in firearms, cybercrime and money-laundering and in some cases terrorism)"

Member State Respondents (15)	
Key indicators of relevance	Available indicators and data sources
1. Number of prosecutions for money laundering 2. Risks of interaction between legal economic activities and the cocaine supply chain (stores of Ironmongery and chemical supplies; companies of land, river and air transport; entertainment companies) 3. Contribution of illicit crops in the GDP 4. We suggest including the collation of the number of Money Laundering (ML) by underlying predicate of drug trafficking. 5. Statistics of number of requests for Mutual Legal Assistance and Extradition	1. Annual National Security Analysis 2. Statistic data from criminal investigation 3. We can provide the number of ML by underlying predicate of drug trafficking. 4. Number of Organised Crime groups with Nexus to other criminal areas 5. a) Provide statistics for number of Mutual Legal Assistance requests relating to drug related offences. (b)Provide statistics for number of Extradition requests relating to drug related offences
Other Respondents (6)	
6. Be mindful about assuming that any type of drug trafficking is transnational organised crime	6. Anti-corruption initiatives 7. Case studies 8. Social media networks

The following types of data sources can also be considered as potential sources of information on this topic:

- Data on prosecutions (and convictions) for concomitant offences related to drug trafficking, corruption and other forms of organized crime, including membership of an organized crime group
- Data on prosecutions (and convictions) for corruption, with a link to drug trafficking or drug traffickers
- Data on corruption related to drug trafficking, perceived or experienced, derived from specialized questions built into corruption surveys
- Data on seizures of drugs together with other commodities, such as firearms, smuggled wildlife, illegally mined minerals, and cash.
- Data on detected cases of individuals forced into acting as drug couriers, possibly in the context of kidnapping or trafficking in persons
- Detailed information on large-scale seizures of drugs

- Breakdowns of estimated share of the illicit drug market by organized crime group, and qualitative information on their characteristics and their involvement in over forms of organized crime
- Qualitative assessments by law enforcement officials on the role of drug trafficking in organized crime groups

9.2. Drug-related criminal activities using the Internet

9.2.1. Scope

Covering this topic in the ARQ requires precise definitions. The internet can be used to facilitate drug-related criminal activities in various ways. It appears reasonable to exclude activities in which the internet is used simply to facilitate one-to-one communication between two parties already known to each other, e.g. by email or other messaging service, and to focus instead on situations where the internet is essential in facilitating the creation of marketplaces which enable illicit transactions involving drugs.

However, this still leaves leeway in terms of two dimensions which characterize the phenomenon in important ways: the first is the realm in which the marketplace operates, i.e. the "dark web" versus the open web ("Clearnet"), while the second is the distinction between illicitly sourced substances (e.g. street heroin) and substances sold as pharmaceuticals in contravention of applicable regulations, including possibly counterfeit products.

The "dark web" is a part of the internet that is not indexed by web search engines and requires specific software setups or authorization to be accessed. Crypto-markets operating in the dark web typically offer buyers and vendors full anonymity and may facilitate transactions of all kinds, licit and illicit, and including the sale of illicitly sourced substances. On the other hand, dedicated "internet pharmacies" have been observed to dispense medications containing drugs without requiring the necessary prescription, even while operating in the open web; at the same time, such sales likely occur in the dark web as well.

9.2.2. Challenges

- For the purposes of international data collection, the measurement of any phenomenon relies on the possibility to attribute a specific instance to specific jurisdictions or countries; such an attribution should not be arbitrary and, in order to avoid double counting, the jurisdiction/country would ideally be unique. In the context of internet marketplaces, such an attribution can be problematic, as a marketplace may be linked to many countries in several ways, e.g. operated by a network of people in multiple countries, hosted by a server in another country which can easily be replaced by one in yet another country, and enabling shipments from multiple countries of origin to multiple countries of destination. This situation may also lead to legal grey areas in terms of the applicable laws. A given marketplace may be accessible from multiple portals, and counting marketplaces in a meaningful way may not be trivial.
- Monitoring and investigating criminal activities using the internet requires resources and sophisticated expertise which may not be available to all countries.
- This is an area where technological innovation enables emerging patterns of criminal activity in unpredictable ways, limited only by the ingenuity of criminals; hence investigative techniques as well as monitoring necessarily have to adapt and keep up with the changing nature of the phenomenon

9.2.3. Potential sources and types of information

The ARQ feedback questionnaire requested input on potential indicators and data sources relevant to this topic. This feedback is summarized in the table below.

Table 2: Feedback via the ARQ Feedback Questionnaire on "drug-related criminal activities using the Internet"

Member State Respondents (11)	
Relevant indicators	Available indicators and data sources
7. Number of legal investigations related to criminal activities using internet 8. Number of local dark net marketplaces 9. Parcels ordered via dark net 10. List of recipient countries for drugs bought illicitly over the internet 11. Types of illicit drugs bought over the internet 12. Drug-related websites and programs 13. Drug related communication accounts 14. Use of internet by members of criminal organisations 15. Use of dark net for purchase of precursor chemicals	1. Types of illicit drugs purchased over the internet 2. Deleted entries of illicit information, 3. The number of closed accounts and websites related to illicit drug activities
Other Respondents (6)	
16. Traffic monitoring 17. Any health-related interventions on the dark net (online forums, exchanges on harm reduction, etc.)	4. Shipment Monitoring 5. Number of transactions 6. Social Media Network, Press and Media 7. NDARC Monitoring of Dark Net Activity

The following types of information can also be considered as potential data to collect from countries:

- Existence of dedicated law enforcement unit or programme focused on criminal activities using the internet
- Number and quantity of drug seizures arising from investigations into criminal activities using the internet
- Number of arrests and prosecutions for drug-related offences arising from investigations into criminal activities using the internet
- Number of detected violations of laws and regulations through the sale of pharmaceuticals over the internet
- Number of transactions or consignments of drugs arising from cryptomarket transactions observed by a country (involving that country as point of origin, destination, or both)
- Number of cryptomarkets believed to be hosted by a server in the country, or managed by an operator in the country
- Qualitative information on drug trafficking flows associated with cryptomarkets

- Qualitative information on confirmed or suspected circumvention of domestic laws and regulations applicable to the sale of pharmaceuticals through cross-border transactions occurring on internet marketplaces

9.3. Money-laundering and illicit financial flows related to the illicit supply chain of drugs

9.3.1. *Scope*

Money laundering is the method by which criminals disguise the illegal origins of their wealth and protect their assets. Illicit financial flows is generally referred to as the value illicitly generated, transferred or utilized that is moved from one country to another. In the case of value generated from illicit markets[10], a close link between money laundering and illicit financial flows exist. A large share of crime proceeds from drug trafficking is laundered to enter the legal economy or to protect criminals' assets; as part of this process of disguising the criminal origin of funds, a significant share of criminal proceeds is transferred abroad, thus originating illicit financial flows. Several challenges exist to produce data and research on money laundering and illicit financial flows connected with drug trafficking, given the hidden and complex nature of these phenomena. Assessing the scale of drug markets, the forms of utilization/disguising of income from drug trafficking and the matrix of cross border routes used to channel illegal funds would provide a significant response to the information need recalled by the UNGASS Outcome Document [11]

9.3.2. *Challenges*

Estimating the value of the drug markets is the first step to assess its role in the national economy and eventually to develop an understanding of the scale of drug generated value that is channeled abroad and/or laundered by criminals. Taking into account the inter-organizational relationships of criminal firms involved in drug trafficking, a model that reflects the supply-chain of illicit drugs as organised in different trafficking phases can be taken as the starting point [12]. According to this model, the trafficking chain of illicit drug markets can be broken down into four major stages, which begin with production in the source country, followed by international trade through transit countries to the destination country where the product is consumed. In the destination country, drugs are transported and distributed from domestic wholesale traders to small-scale dealers who sell the product to drug users.

Figure 53: Components of drug market

This is a general model that can be adapted to any country and any type of drug. Depending on the typology of the drug problem affecting a country, each component will have a different scale as compared to the others. For example, in countries with no significant drug production the first component will be negligible. Depending on the type of available data, various estimation methods exist to quantify the value of the four components of drug markets and overall income that is

[10] Other forms of illicit financial flows refer for example to funds generated from tax evasion and/or avoidance or to funds transferred to finance terrorism.
[11] See UNGASS Outcome Document, Operational Recommendation 3 (u): Improve the availability and quality of statistical information and analysis of illicit drug cultivation, production and manufacturing, drug trafficking, money-laundering and illicit financial flows, including for appropriate reflection in reports of the United Nations Office on Drugs and Crime and the International Narcotics Control Board, in order to better measure and evaluate the impact of such crimes and to further enhance the effectiveness of criminal justice responses in that regard.
[12] See UNODC, Building a statistical framework to measure Illicit Financial Flows, 2017

generated. They make integrated use of data on drug use (e.g. drug prevalence and consumption patterns) and drug supply (e.g. seizures, prices, purity and production). Most of these data are already requested in the current ARQ, with the exception of information on average quantity of drugs consumed by a person who uses drugs.

Once the income from drug markets is estimated, two main challenges need to be addressed to shed light on money laundering and illicit financial flows connected to drug trafficking:

- determining the share of crime proceeds that is laundered domestically (possibly with information on the methods used and the assets acquired)
- determining the share of the laundered crime proceeds that is transferred abroad, with information on the methods used and places of destination.
- Determining the share of crime proceeds that are transferred abroad as such, without having been laundered
- Determining the transnational routes of crime proceeds related to drug trafficking
    - The steps highlighted above describe an holistic approach, which is hardly applied in any country, to estimate level, trends and routes of illicit financial flows and money laundered connected to drug trafficking. UNODC is in the process to develop guidelines and support countries to pilot some of the above mentioned steps in the context of supporting the production of the Sustainable Development Goals (SDG) indicator on illicit financial flows. The expectation is that gradually national institutions embed in their system methodology that in the long run allow the regular production of quantitative information on illicit financial flows and money laundry. But it is premature to include elements of this approach in the current revision of the ARQ. At the current stage, it seems more feasible to include in the ARQ quantitative elements related to the country response to illicit financial flows and money laundering related to drug trafficking (investigations, arrests, convictions, etc) and qualitative assessments of their size, distribution and routes.

9.3.3. *Potential sources and types of information*

The ARQ feedback questionnaire requested input on potential indicators and data sources relevant to this topic. This feedback is summarized in the table below.

Table 3: Feedback via the ARQ Feedback Questionnaire on "Money-laundering and illicit financial flows related to the illicit supply chain of drugs"

Member State Respondents (11)	
Relevant indicators	Available indicators and data sources
1. Penetration of the licit economy by organized crime groups / drug economy proceeds (within and outside the financial system) 2. Number of money laundering investigation related to drug trafficking 3. Seizures and forfeitures from drug related cases 4. Drug related Suspicious Transaction Reports, 5. Cases investigated, prosecuted and convicted 6. Amounts of money involved in drug related money laundering cases	1. Amount of money mobilized by illicit coca leaf / drug crop cultivation, and cocaine production 2. Number of financial investigations and confiscations in relation to proceeds of drug related organised crime 3. Data on amount seized or forfeited in drug-related investigations 4. Suspicious Transaction Reports
Other Respondents (7)	
7. Links between fraud and money laundering 8. which licit activities the illicit money are invested 9. Percentage of proceeds of drug-related organised crime redirected towards health-related drug policies.	5. Current legal framework and challenges 6. Banking surveillance

The following types of information can also be considered as potential data to collect in the ARQ:

- number of investigations, prosecutions and convictions for money laundering connected to drug trafficking
- number and value of assets seized for drug trafficking offences
- Expert assessment (financial information units, law enforcement, judiciary) on money laundering trends, patterns, channels and modus operandi (domestic and abroad)
- Expert assessment (financial information units, law enforcement, judiciary) on typical country of destination of outflows profits from drug trafficking
- Expert assessment (financial information units, law enforcement, judiciary) on country of origin of inflow profits from drug trafficking

10. Response to the drug problem

10.1. Data availability

Information on the response to the drug problem is collected through parts I and II of the ARQ. During the period 2010-2016, on average 105 and 90 countries submitted parts I and II of the questionnaire. Part I collects information on legislative and institutional frameworks established at national level to address the drug problem; part II of the ARQ is the instrument used to monitor the implementation of the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balances Strategy to Counter the World Drug Problem (A/64/92). In particular, part II focuses on policies and measures that address drug demand (mainly prevention, treatment and prevention of diseases) and drug supply (mainly on measures to reduce drug supply, to facilitate international cooperation, control of precursors and on alternative development strategies).

10.2. Suitability for monitoring progress

The information provided in part II of the ARQ is almost exclusively of qualitative nature and it often focuses on the existence of certain policies and/or the implementation of relevant measures/activities. For example, in the section on drug supply reduction, member states are asked to provide information on the type of law enforcement agencies mandated to reduce drug supply and on the existence of cooperation between law enforcement agencies of different countries. This type of information, useful to understand if basic requirements are in place to contrast drug trafficking, has limited value to monitor actual implementation of policies and of their effectiveness. Several questions exists where virtually all Member States provided information: for example, during the 2010-2016 period, an average 99 percent of responding Member States indicated that their "legal system allows for the use of special investigative techniques" and, when requested to indicate which techniques have been used (e.g. use of informants, electronic surveillance, undercover techniques or controlled delivery), the vast majority of Member States confirmed that the various techniques were in use. Similarly, on international cooperation, over 99 percent of responding Member States reported exchanging information with counterparts in other countries during 2010-2016, and over 90 percent reported doing joint operations.

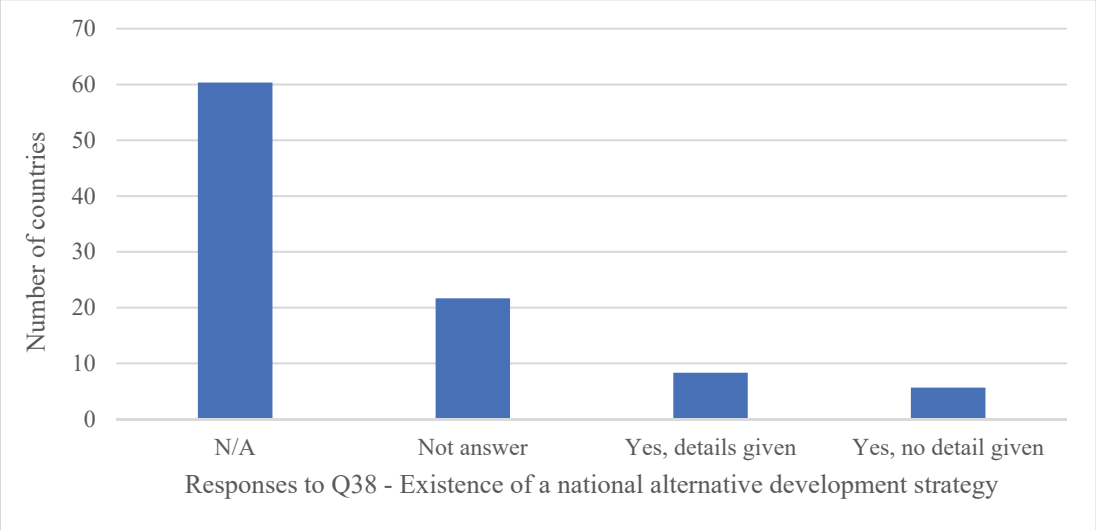
In other cases, the questions lend themselves to be misinterpreted as they are very broad and answers can change from one year to another because of different understanding by the respondent. For example, Question 16 asks whether the responding country has a "specific written strategy to reduce drug supply approved by the government" in place. It is not uncommon for Member States to report one year that they have such strategy in place, while reporting the opposite the following year, and changing again the answer the subsequent year. While this can be theoretically possible, these variations in reporting can be due to different interpretation by respondents.

In a similar manner, the information collected on prevention, treatment, quality of standards and training of staff, and prevention of diseases can be used to assess if the infrastructure is in place in these policy areas, for example in terms of types of activities on drug prevention and treatment. Some information on the grade of implementation of certain policies is collected – for example on the coverage of drug treatment or on prevention of diseases programs – in the form of categorical assessments (high/medium/low). These assessment are not conducive to understand trends overtime and to highlight gaps or good practices in the provision of services because do not have a clear and standard basis

In part II of the ARQ information is also collected on Alternative Development (AD) as a strategy to control the cultivation of illicit crops. As shown in Figure 54, the collection of this information is relevant for a limited number of countries and, on average, less than 10 countries provide details. For example, several questions are included about aspects of design, planning and implementation

of AD programmes, including the use of a participatory approach, gender actions and environmental conservation and - on average - five countries per ARQ reporting year give detailed answers to these questions. Also in this case, the information requested is not indicative of actual implementation and effectiveness of programs.

Figure 54: Number of countries reporting the existence of a national alternative development strategy



Quantitative information is requested on the annual budget allocated to AD at national/state/provincial level but very few countries (3-5) reply to this question and definitional issues exist (for example, on whether to distinguish between national budget and international donors). Questions are also included on number of households involved in or affected by illicit cultivation and on households benefitting from alternative development programmes. While this information would be useful to monitor the situation and progress made, discrepancies in definitions and sources used make these metrics difficult to interpret and analyse.

In summary, a very limited number of countries provide detailed information about AD and this is mostly of descriptive nature, with limited usability to monitor trends or measure impact. Furthermore, when analysing AD interventions it should be considered that such activities – as all development programmes- have a long-term horizon and there is limited value in collecting information on an annual basis.

10.3. Possible issues to be considered by the experts for modifications and improvements

- For the monitoring of response to the drug problem, the collection of information on the infrastructure (legislative, institutional, programmatic) to address the drug problem could be accompanied by more specific information on the type of interventions, their efficiency and their effectiveness.
- In some cases, it can be feasible to collect quantitative information to monitor the implementation of policies. For example, in the area of drug demand, such information could be included in questions related to the number of people who have actually received the different types of services; in the area of drug supply reduction, relevant data could be collected in the area of international cooperation (requests of mutual legal assistance, extraditions, joint operations, etc.).

- When the collection of quantitative information on issues is not feasible (for lack of sources or for poor statistical measurability of the issue), qualitative information could be collected in a way to reduce subjectivity of answers and varying interpretations. Furthermore, the provision of available studies, analyses and publications could be encouraged, when relevant.
- It could be considered to drop or reformulate the questions where the large majority of countries provide the same answer (usually positive), which shows limited analytical value of the information.
- In relation to Alternative Development, a topic of interest to a limited set of countries, it could be considered to have a few core questions included in the ARQ on an annual basis, including the request to send available research publications and impact assessment documents. In parallel, a module of questions on selected AD topics relevant to countries implementing AD programmes could be sent to such countries on a periodic basis. In this module, detailed information could be collected on regions and communities affected by illicit crop cultivation, AD programmes and the level of progress in relevant areas of Sustainable Development Goals.

11. Cross cutting issues on ARQ data collection

11.1. Countries replies to ARQ

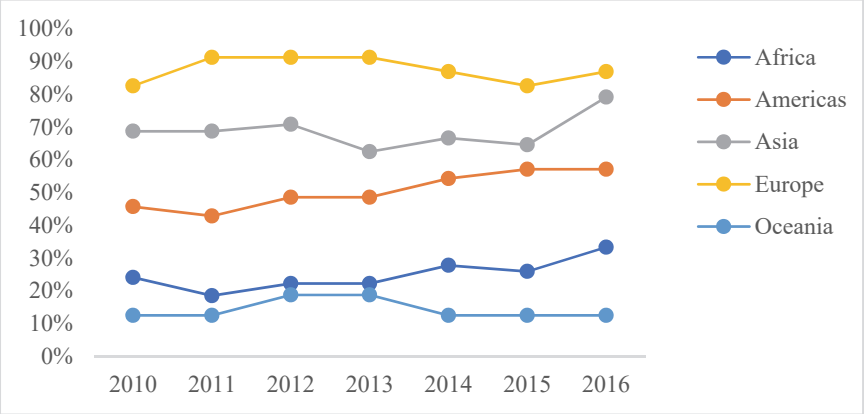
During the period from 2010 to 2016, the number of countries that submitted the ARQ has slightly fluctuated (between 102 and 108) and then had a sharp increase for 2016 ARQ[13] (Table 4). At regional level, Europe consistently had the highest submission rate, while Oceania the lowest. The 2016 increase was due to higher response rate especially in Asia and Africa (53)

Table 4: Number of ARQ submission (any) by region by year

ARQ submitted	2010	2011	2012	2013	2014	2015	2016
Africa (44)	13	10	12	12	15	14	18
Americas (35)	16	15	17	17	19	20	20
Asia (48)	33	33	34	30	32	31	38
Europe (46)	38	42	42	42	40	38	40
Oceania (16)	2	2	3	3	2	2	2
	102	102	108	104	108	105	118

[13] The ARQ year reflects the reference period of collected. For example, the '2016 ARQ' is collected during 2017 and requests data for 2016.

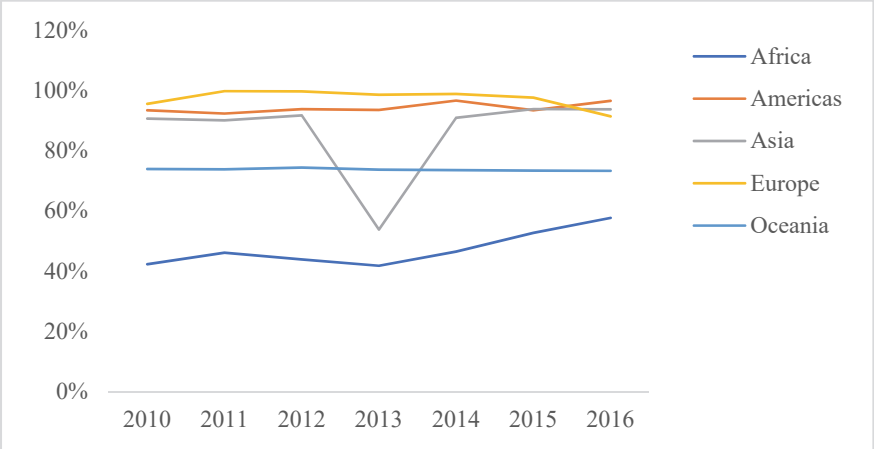
Figure 55: Proportion of countries that submitted at least one part of ARQ by region by year



Source: ARQ Database, 2010 - 2016

When considering the coverage of ARQ submission in terms of population size of responding countries providing the questionnaire, responses from Americas, Asia and Europe represent a considerable share of the population (except for Asia in 2013). Notably, the coverage in Africa increased steadily during the period (from 42% in 2010 to 58% in 2016). When interpreting these data it should be taken into account that the provision of the ARQ is not necessarily an indication of corresponding level of data coverage, as questionnaires are often compiled only partially.

Figure 56: Coverage of ARQ submission as percentage of total population by region by year.

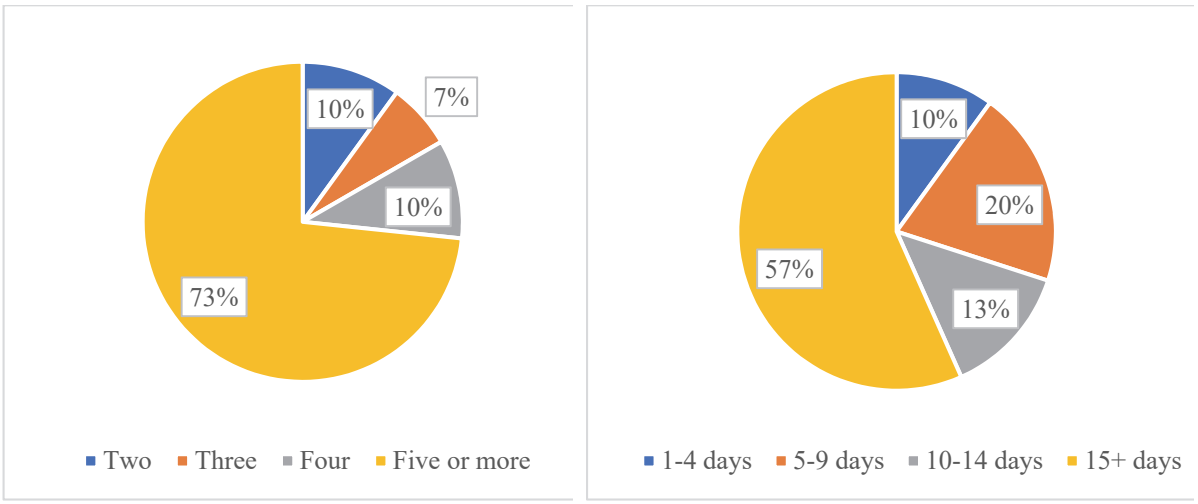


Source: ARQ Database, 2010 – 2016

11.2. The data collection process

At national level, the process of gathering the necessary information and filling in the ARQ forms is very labor intensive. According to responses given to the 'ARQ feedback questionnaire', in three quarters of countries five or more institutions are involved in filling of the questionnaire, meaning that an intense coordination effort is required (Figure 57). The institutional complexity to fill in the ARQ is due to the need to gather the information, compile the questionnaire and coordinate the exercise: in more than half of the countries the equivalent of three weeks of work of one person is not sufficient to compile the ARQ.

Figure 57: Percentage distribution of member countries according to number of institutions that contribute to filling the ARQ and number of days of workload to fill in the ARQ.

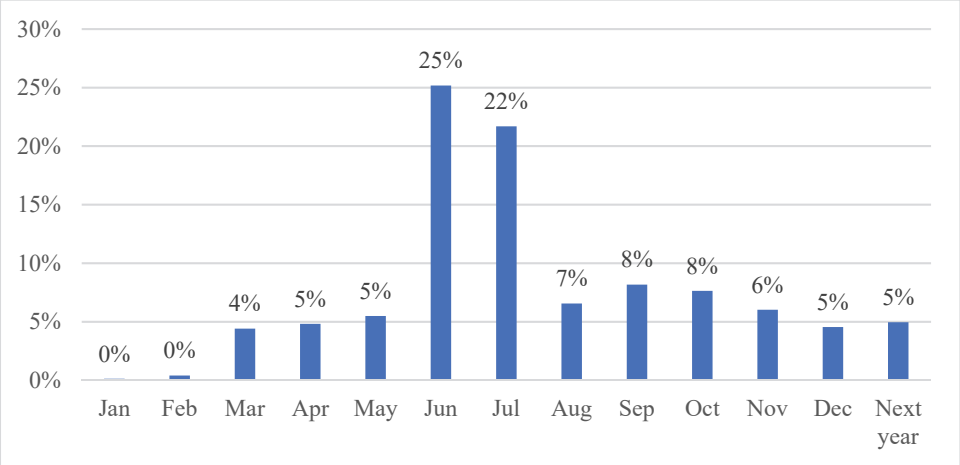


The complex work of filling the ARQ is often coordinated by a focal point, e.g. an institution that ensures that various responsible parties provide the information and/or fill in the questionnaire. According to responses to the 'ARQ feedback questionnaire', more than 90 percent of countries have formally or informally appointed a focal point coordinating the response to the ARQ.

ARQ transmission between member states and UNODC takes place through electronic channels: in 2015 and 2016, 47 percent of countries submitted the ARQ through the dedicated portal, 35 percent through email, and 18 percent submitted it by both email and portal. Thus, the ARQ is transmitted through a secure portal in two thirds of cases.

From 2010 to 2016, there were a total of 747 ARQ submissions by member states. **Error! Reference source not found.**58 shows the proportion of ARQ that was submitted in various month in the reporting cycle. A large share of the submissions have occurred in June- July, the period around the deadline for providing the ARQ. Besides this period, member states tend to hand in the ARQ according to a regular and constant pattern, possibly dictated by internal working cycles of data production.

Figure 58: Percentage distribution of ARQ by month of submission (2010-2016).



11.3. Type of ARQ contents

The ARQ questionnaire is a complex instrument and it collects various types of information. Parts I and II collect almost exclusively qualitative information, while parts II and IV are more quantitative in nature. The items can be classified into four types: Statistical data (e.g. Question 9 -What is the lifetime prevalence among the general population), metadata (e.g. Question 8b – Which part of the country or the population is covered by the data?), 'categorical' expert assessments (e.g. Question 3 – Rank these classes of drugs in order of prevalence of use in the reporting year) and expert evaluation in free text (e.g. Question 36 – Use the space below to document any other developments in the prevalence and patterns of drug use in your country over the reporting year.). The diversity of the ARQ questions has an impact on the type and level of expertise required to provide the information (Table 5)

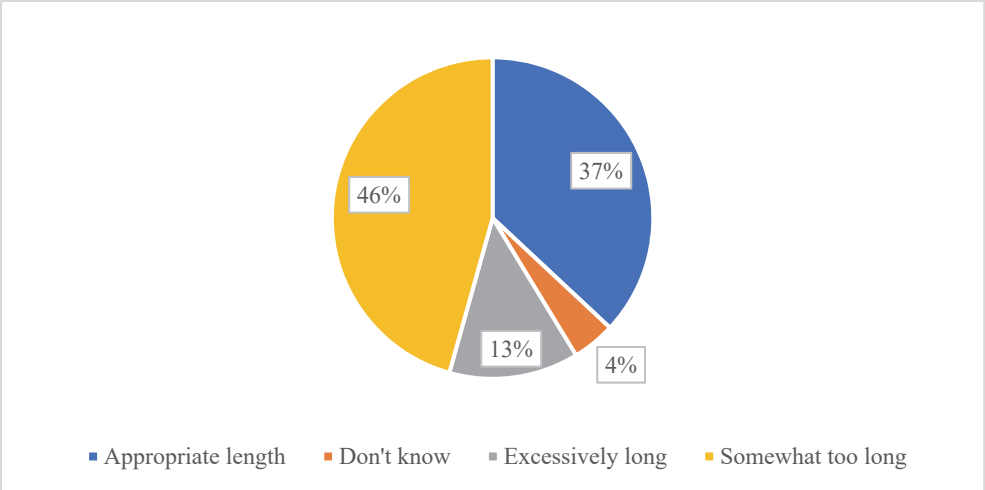
Table 5: ARQ item types (Part III and IV)

	Part III	Part IV
Data point	39	57
Metadata	47	22
Categorical assessment	19	5
Evaluation in free text	3	24
Total	108	108

11.4. Structure and user-friendliness of the ARQ

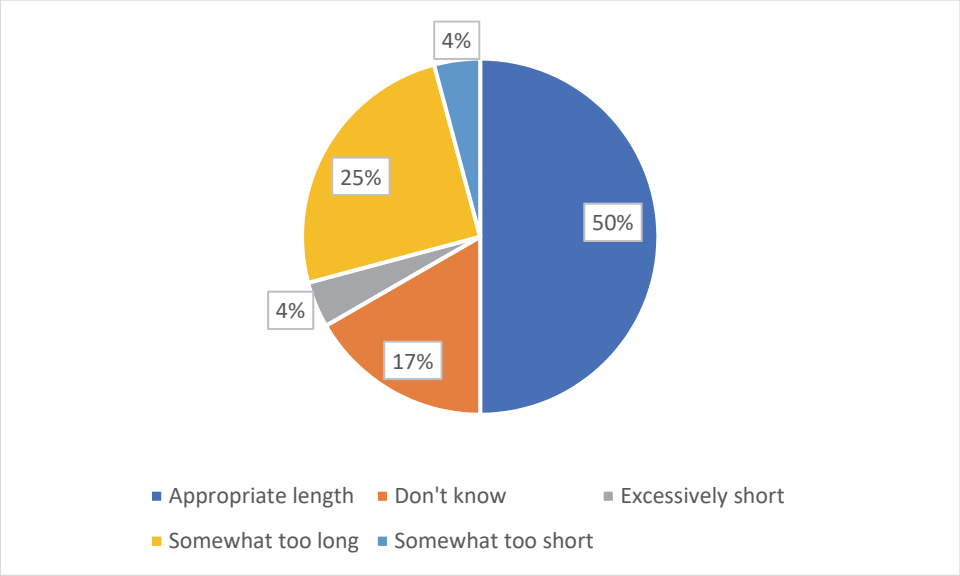
Almost 60 percent of member states' respondents to the 'ARQ feedback questionnaire' indicated that the ARQ is too long. Notably, among respondents from non-member states a similar share indicated that its length is appropriate or it is too short.

Figure 59: Distribution of member states respondents' opinion on the length of the ARQ.



Source: ARQ Feedback Questionnaire, November 2017

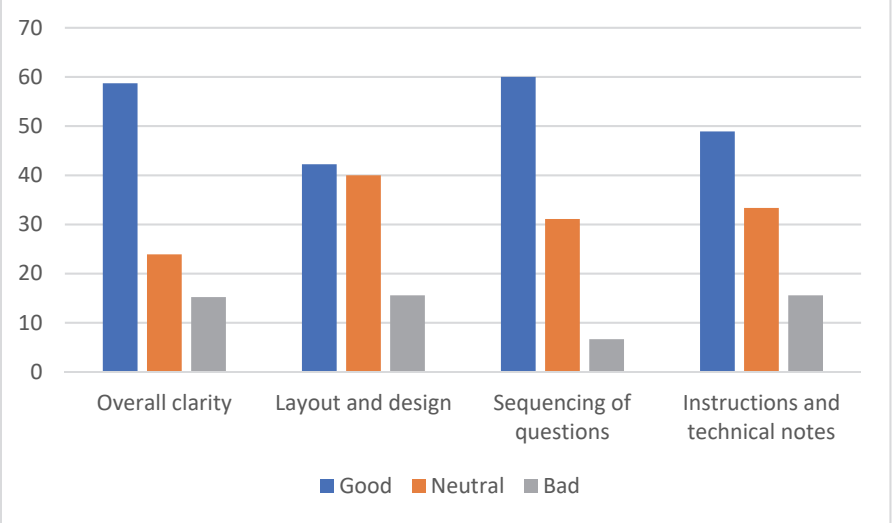
Figure 60: Non-member states respondents' opinion on the length of the ARQ.



Source: ARQ Feedback Questionnaire, November 2017

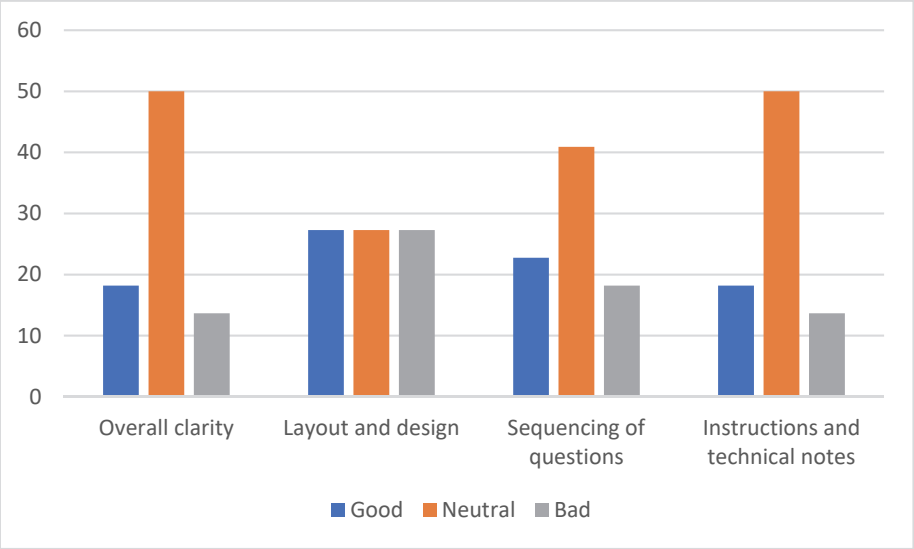
In term of overall clarity, layout and design, sequencing of questions, and instructions and technical notes, member states' respondents rate the ARQ quite positively. For example, approximately 60% of the respondents rated overall clarity and sequencing of question as good. Compared to respondents from member states, rating from non-member states respondents were in general lower.

Figure 61: Distribution of rating on user-friendliness on clarity, layout and design, sequencing of questions, and instructions and technical notes (Respondents from member states)



Source: ARQ Feedback Questionnaire, November 2017

Figure 62: Distribution of rating on user-friendliness on clarity, layout and design, sequencing of questions, and instructions and technical notes (Respondents from non-member states).



Source: ARQ Feedback Questionnaire, November 2017

11.5. Overall challenges and strengths

- Overall, the ARQ is a well-established data collection, with working arrangements both at national and international level. Important differences exist across regions in terms of response rate and level of completion of the questionnaire.
- At national level, the ARQ questionnaire is a demanding exercise, it requires substantive work and inputs from several agencies/entities and in the large majority of cases a national institution is responsible for coordinating the filling in of the ARQ.
- In a large number of cases, Member States use a secure web portal to send the ARQ to UNODC and replies are provided throughout the year, with a peak around the annual deadline for completing the ARQ (June and July).
- The ARQ is a long questionnaire, composed of four parts and with several questions. A large majority of respondents to the 'ARQ feedback questionnaire' are of the opinion that the ARQ is too long. Different types of information are requested in the ARQ (statistical data, metadata, and expert assessments), which requires varying level of effort and expertise to be compiled.
- In the replies to the 'ARQ feedback questionnaire', representatives from Member States – in most cases already familiar with the ARQ - give a good rating in terms of its overall clarity, sequencing of questions and provision of instructions; in general, representatives from academia and civil society assign lower rates. ARQ layout and design in general scored lower among all respondents.
- The current process to review and adopt the ARQ makes it a rigid instrument, not able to adapt to changing information needs linked to evolving dynamics of the drug problem. Moreover, because of its complexity, it is an instrument prone to inconsistencies and even mistakes. -.

11.6. Possible issues to be considered by the experts for modifications and improvements

- In order to reduce length and response burden on member states, it can be considered to distinguish between core and non-core topics to be included in the ARQ. Core topics could be included every year, while non-core could be included on a rotating basis. The same approach has been adopted for the UN Crime Trend Survey (the questionnaire used by UNODC to collect data on crime and criminal justice)

- In order to facilitate and accelerate the ARQ process, it could be considered that Member States appoint ARQ National Focal Points. These Focal Points - technical institutes/entities with direct responsibility in collecting or coordinating drug-related data – would be tasked with coordinating the ARQ data collection at national level and with overall communication with UNODC.

- Ways to improve usability of the questionnaire should be considered, as for example dividing the various parts of the ARQ according to the national institution responsible for their compilation, improving overall design and layout and, when possible, distinguishing between sections for data and those for metadata (metadata are not subject to frequent change)

- Explore the possibility to develop an on-line data collection tool where data communication between countries and UNODC could take place, in lieu of the current arrangement based on email communication and desktop tool (Excel file). A new data transmission system could have positive impacts on response burden, data quality and process efficiency. The feasibility of this option could be studied, also in terms of financial implications.

- It could be considered to establish a mechanism for periodic reviews of the ARQ, based on information needs expressed at CND and translated into ARQ revisions formulated through expert consultation processes. More flexible arrangements could make this instrument more fit for its original purpose of monitoring the evolving nature of the drug problem.

12. Annexes

1. Submissions of ARQ parts

Table 6: Number of ARQ Part I submission by region by year.

	2010		2011		2012		2013		2014		2015		2016	
Part I submitted	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Africa	44	10	46	8	46	8	44	10	41	13	42	12	38	16
Americas	21	14	20	15	18	17	18	17	16	19	15	20	16	19
Asia	17	31	17	31	16	32	19	29	17	31	20	28	10	38
Europe	9	37	7	39	5	41	6	40	10	36	9	37	8	38
Oceania	14	2	14	2	13	3	13	3	14	2	14	2	14	2
Total number of submission		94		95		101		99		101		99		113

Table 7: Number of ARQ Part II submission by region by year.

	2010		2011		2012		2013		2014		2015		2016	
Part II submitted	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Africa	45	9	45	9	45	9	43	11	41	13	41	13	37	17
Americas	21	14	21	14	18	17	18	17	16	19	15	20	17	18
Asia	16	32	17	31	15	33	19	29	17	31	20	28	11	37
Europe	9	37	8	38	7	39	4	42	9	37	11	35	7	39
Oceania	14	2	14	2	13	3	13	3	14	2	14	2	14	2
Total number of submission		94		94		101		102		102		98		113

Table 8: Number of ARQ Part III submission by region by year.

	2010		2011		2012		2013		2014		2015		2016	
Part III submitted	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Africa	45	9	48	6	45	9	44	10	42	12	43	11	40	14
Americas	19	16	21	14	19	16	19	16	16	19	15	20	15	20
Asia	18	30	16	32	15	33	19	29	17	31	18	30	13	35
Europe	9	37	8	38	7	39	6	40	9	37	10	36	7	39
Oceania	14	2	14	2	13	3	13	3	14	2	14	2	14	2
Total number of submission		94		92		100		98		101		99		110

Table 9: Number of ARQ Part IV submission by year.

	2010		2011		2012		2013		2014		2015		2016	
Part IV submitted	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Africa	44	10	47	7	44	10	43	11	40	14	41	13	37	17
Americas	20	15	20	15	19	16	18	17	16	19	15	20	16	19
Asia	18	30	16	32	16	32	19	29	18	30	20	28	12	36
Europe	8	38	4	42	4	42	5	41	7	39	8	38	7	39
Oceania	14	2	14	2	13	3	14	2	14	2	14	2	14	2
Total number of submission		95		98		103		100		104		101		113

2. Part III – data availability by questions

Table 10: **Number of countries that provided data by question item from 2010 to 2015.**

Part III	2010		2011		2012		2013		2014		2015	
Question	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data
Prevalence of drug use: General population												
1	67	27	67	25	73	27	62	36	67	34	66	33
2	71	23	76	16	82	18	75	23	80	21	80	19
3	46	48	45	47	48	52	42	56	43	58	43	56
4	69	25	71	21	71	29	67	31	79	22	73	26
5	65	29	65	27	72	28	68	30	72	29	69	30
6	63	31	67	25	68	32	68	30	70	31	69	30
Prevalence/ number of drug users: General population												
7	54	40	60	32	58	42	51	47	60	41	55	44
8	54	40	60	32	58	42	52	46	60	41	56	43
9	47	47	54	38	42	58	40	58	47	54	48	51
10	46	48	52	40	49	51	47	51	52	49	44	55
11	40	54	43	49	39	61	35	63	37	64	38	61
Prevalence/ number of drug users: Youth												
13	55	39	60	32	52	48	46	52	48	53	51	48
14	55	39	60	32	52	48	47	51	48	53	51	48
15	49	45	56	36	49	51	41	57	42	59	47	52
16	50	44	54	38	46	54	43	55	43	58	45	54
17	42	52	50	42	43	57	36	62	38	63	43	56
Total number of part III submission		94		92		100		98		101		99

Table 11: Error! Reference source not found. **Cont. Number of countries that provided data by question item from 2010 to 2015.**

Part III	2010		2011		2012		2013		2014		2015	
Question	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data
Injecting drug use												
18	69	25	73	19	73	27	73	25	75	26	78	21
19	57	37	63	29	63	37	62	36	62	39	66	33
20	70	24	74	18	75	25	75	23	75	26	79	20
21	48	46	60	32	53	47	64	34	67	34	68	31
22	42	52	50	42	46	54	60	38	44	57	60	39
Injecting drug users												
23	68	26	55	37	61	39	57	41	60	41	56	43
24	47	47	53	39	60	40	58	40	58	43	53	46
25	44	50	51	41	50	50	48	50	49	52	45	54
26	42	52	45	47	44	56	47	51	54	47	54	45
27	20	74	19	73	22	78	15	83	14	87	23	76
Severe/ problem drug users												
28	62	32	62	30	60	40	64	34	64	37	61	38
29	51	43	48	44	50	50	49	49	52	49	49	50
30	50	44	45	47	47	53	45	53	46	55	42	57
High-risk groups												
31					18	82	23	75	26	75	24	75
32					11	89	13	85	15	86	17	82
33					20	80	26	72	27	74	27	72
New development in drug use												
34	38	56	40	52	37	63	39	59	34	67	37	62
35	37	57	39	53	37	63	43	55	41	60	40	59
36	17	77	16	76	17	83	17	81	13	88	15	84
Total number of part III submission		94		92		100		98		101		99

Table 12: **Cont. Number of countries that provided data by question item from 2010 to 2015.**

Part III	2010		2011		2012		2013		2014		2015	
Question	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data
Drug related morbidity												
37												
38	50	44	55	37	56	44	50	48	51	50	55	44
39	41	53	39	53	39	61	28	70	31	70	23	76
40	44	50	50	42	51	49	42	56	41	60	44	55
41	22	72	26	66	31	69	26	72	29	72	32	67
42	16	78	12	80	12	88	11	87	15	86	20	79
43	7	87	11	81	8	92	8	90	11	90	13	86
44	54	40	57	35	59	41	47	51	44	57	51	48
Drug-related morbidity												
45					25	75	30	68	31	70	33	66
46					28	72	30	68	32	69	33	66
47					19	81	23	75	20	81	25	74
48					22	78	27	71	28	73	27	72
Drug related mortality												
49	55	39	51	41	47	53	53	45	51	50	54	45
50	34	60	33	59	23	77	28	70	25	76	28	71
51	43	51	43	49	46	54	50	48	46	55	43	56
Drug-related mortality												
52	58	36	59	33	51	49	59	39	58	43	59	40
53	58	36	59	33	51	49	59	39	57	44	59	40
54	42	52	41	51	41	59	47	51	48	53	46	53
55	23	71	30	62	24	76	29	69	25	76	29	70
56	7	87	5	87	7	93	6	92	9	92	7	92
57												
Total number of part III submission		94		92		100		98		101		99

Table 13: **Cont. Number of countries that provided data by question item from 2010 to 2015.**

Part III	2010		2011		2012		2013		2014		2015	
Question	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data	Available	Submitted, no data
Drug treatment												
58	80	14	81	11	78	22	77	21	82	19	81	18
59	71	23	70	22	68	32	65	33	72	29	65	34
60	68	26	64	28	63	37	59	39	61	40	73	26
Drug treatment												
61	81	13	85	7	80	20	81	17	86	15	86	13
62	17	77	17	75	13	87	19	79	21	80	22	77
63	69	25	71	21	69	31	68	30	70	31	76	23
64	55	39	56	36	55	45	51	47	55	46	55	44
65	63	31	64	28	57	43	55	43	63	38	66	33
66	51	43	54	38	50	50	47	51	51	50	53	46
67				92	20	80	16	82	23	78	29	70
68				92	29	71	24	74	30	71	43	56
69			1	91	59	41	60	38	65	36	62	37
Collecting data and monitoring capacity												
70	61	33	69	23	73	27	67	31	73	28	69	30
71	65	29	69	23	76	24	69	29	75	26	70	29
72												
Total ARQ Part 3 Submission		94		92		100		98		101		99

Table 14: Data coverage (as percentage of total world population.

Part III Question	2010	2011	2012	2013	2014	2015
Prevalence of drug use: General population						
1	70.22	50.16	54.08	25.39	51.59	55.02
2	71.32	55.8	59.89	49.89	57.23	78.01
3	40.04	22.54	28.43	23.81	21.7	27.03
4	68.89	54.06	54.79	49.01	57.34	76.16
5	68.08	50.29	53.37	47.79	52.8	71.56
6	67.37	51.17	52.5	47.84	52.28	73.75
Prevalence/ number of drug users: General population						
7	49.46	50.93	51.43	27.6	52.92	49.51
8	49.46	50.93	51.43	27.65	52.92	50.78
9	45.06	46.71	41.96	21.55	43.86	45.98
10	26.6	29.03	28.21	25.08	31.77	27.19
11	41.12	41.51	35.35	19.17	38.91	38.18
Prevalence/ number of drug users: Youth						
13	29.33	31.25	28.98	24.04	28.53	26.54
14	29.33	31.25	28.98	24.63	28.53	26.54
15	26.5	28.87	26.86	20.74	23.44	25.69
16	28.19	30.53	27.09	23.94	27.62	25.33
17	24.23	26.23	23.66	17.88	20.55	20.29
Injecting drug use						
18	50.92	71.36	68.01	49.2	72.83	79.47
19	29.47	47.67	47.66	45.84	49.33	58.59
20	51.14	72.02	71.24	49.71	72.83	79.99
21	36.11	59.84	37.15	23.96	65.72	71.89
22	40.52	40.6	39.6	25.48	58.55	70.53
Injecting drug users						
23	50.72	44.9	65.85	23.02	46.52	45.13
24	26.46	37.91	64.57	25.06	47.35	49.47
25	24.19	31.25	43.3	22.08	27.25	28.04
26	43.12	45.04	40.45	19.88	42.14	46.94
27	13.61	6.82	31.52	2.77	6.57	31.3

Table 15: Cont. Data coverage (as percentage of total world population)

Part III	2010	2011	2012	2013	2014	2015
Severe/ problem drug users						
28	37.24	54.14	51.46	33.02	38.34	40.47
29	28.92	29.16	43.85	24.89	29.5	28.68
30	28.02	28.84	43.3	22.21	27.09	26.54
High-risk groups						
31			10.65	7.66	12.49	13.2
32			7.56	4.62	7.03	9.78
33			11.18	8.34	15.29	16.25
New developments in drug use						
34	23.8	41.7	44.12	21.86	21.59	25.12
35	23.68	39.52	25.18	22.93	24.51	26.17
36	14.19	31.78	17.83	10.41	10.1	10.02
Drug related morbidity						
37						
38	40.73	59.41	57.16	16.7	38.8	64.42
39	17.81	37.45	53.19	11.67	16.3	18.14
40	35	60.64	57.31	18.19	17.81	40.11
41	23.81	30.86	30.58	6.31	12.61	34.24
42	6.82	4.82	3.22	2.87	8.95	11.33
43	1.2	4.66	1.78	1.59	7.46	7.03
44	44.19	63.04	61.84	19.67	20.27	47.82
Drug-related morbidity						
45			17.92	16.17	17.82	35.36
46			18.39	16.17	17.87	35.36
47			12.82	14.51	12.73	11.11
48			13.54	14.91	16.82	13.54

Table 16: **Cont. Data coverage (as percentage of total world population)**

Part III	2010	2011	2012	2013	2014	2015
Drug related mortality						
49	27.55	24.57	24.46	23.45	19.35	24.59
50	16.1	14.61	14.17	14.47	14.07	16.94
51	19.46	20.65	19.43	21.36	17.361	15.9
Drug-related mortality						
52	32.36	30.93	25.15	283.14	30.31	30.33
53	32.36	30.93	25.15	28.14	30.16	30.33
54	23.13	20.03	20.96	21.71	22.65	18.57
55	10.88	10.69	8.28	10	8.84	12.03
56	2.66	1.86	3.25	1.75	7.63	3.3
57						
Drug treatment						
58	56.77	77.37	75.69	57.63	80.12	83.06
59	53.93	76.31	36.40	34.42	57.00	54.44
60	53.31	67.79	68.98	45.38	32.46	78.08
Drug treatment						
61	57.81	79.66	75.89	58.03	81.41	83.70
62	24.66	26.95	26.70	7.25	10.99	34.97
63	51.34	51.53	50.01	51.37	51.62	77.32
64	47.92	62.36	44.52	22.10	24.26	44.47
65	49.50	59.98	58.58	45.64	29.69	70.49
66	40.13	60.63	60.83	24.19	25.70	28.64
67			24.04	7.88	9.10	47.63
68			35.20	16.19	14.92	61.46
69		0.13	45.68	29.47	27.09	46.98
Collecting data and monitoring capacity						
70	31.59	68.44	72.30	52.41	52.89	54.21
71	52.2	68.44	75.27	52.48	72.39	54.52
72						

3. Part IV – data availability by question

Table 17: **Number of countries that provided data by question item from 2010 to 2015.**

Part IV Question	2010 Available	Submitted, no data	2011 Available	Submitted, no data	2012 Available	Submitted, no data	2013 Available	Submitted, no data	2014 Available	Submitted, no data	2015 Available	Submitted, no data
Trafficking												
1	88	7	98	0	100	3	97	3	100	4	97	4
2	63	32	69	29	64	39	60	40	63	41	61	40
Trafficking												
4	68	27	75	23	77	26	74	26	85	19	73	28
5	64	31	72	26	77	26	71	29	77	27	71	30
6	68	27	77	21	78	25	73	27	81	23	74	27
Trafficking												
7	60	35	68	30	72	31	66	34	74	30	69	32
8	36	59	43	55	45	58	37	63	42	62	37	64
Price and purity												
11			1	97	58	45	55	45	67	37	75	26
12					81	22	81	19	83	21	78	23
13	12	83	17	81	16	87	10	90	10	94	14	87
Price and purity												
15	63	32	72	26	68	35	65	35	65	39	66	35
16	29	66	30	68	32	71	30	70	31	73	29	72
17	68	27	74	24	69	34	67	33	68	36	71	30
18	27	68	35	63	36	67	40	60	39	65	36	65
Total ARQ Part IV Submission		95		98		103		100		104		101

Table 18: Cont. Number of countries that provided data by question item from 2010 to 2015.

Part IV Question	Available	2010 Submitted, no data	Available	2011 Submitted, no data	Available	2012 Submitted, no data	Available	2013 Submitted, no data	Available	2014 Submitted, no data	Available	2015 Submitted, no data
Price and Purity												
21					35	68	33	67	36	68	35	66
22					31	72	28	72	31	73	32	69
23			1	97	49	54	51	49	51	53	47	54
Drug related crime												
25	59	36	60	38	63	40	61	39	60	44	63	38
26	64	31	70	28	72	31	69	31	71	33	67	34
27	47	48	49	49	45	58	45	55	45	59	40	61
28	50	45	55	43	51	52	50	50	53	51	42	59
29	52	43	55	43	54	49	51	49	55	49	46	55
30	57	38	57	41	60	43	56	44	60	44	56	45
Illicit drug cultivation and production												
33	16	79	11	87	16	87	20	80	23	81	18	83
34	23	72	25	73	23	80	29	71	28	76	25	76
35	28	67	35	63	32	71	35	65	39	65	25	76
36	24	71	28	70	24	79	31	69	34	70	23	78
37	16	79	12	86	14	89	22	78	25	79	18	83
38	35	60	37	61	40	63	40	60	39	65	35	66
39	8	87	14	84	12	91	12	88	18	86	10	91
40	13	82	17	81	12	91	13	87	12	92	13	88
41	6	89	12	86	8	95	10	90	13	91	11	90
42	8	87	12	86	12	91	7	93	15	89	11	90
43	11	84	20	78	14	89	14	86	13	91	16	85
Total ARQ Part IV Submission		95		98		103		100		104		101

Table 19: **Cont. Number of countries that provided data by question item from 2010 to 2015.**

Part IV Question	Available	2010 Submitted, no data	Available	2011 Submitted, no data	Available	2012 Submitted, no data	Available	2013 Submitted, no data	Available	2014 Submitted, no data	Available	2015 Submitted, no data
Illicit cultivation and production												
45	28	67	33	65	26	77	31	69	30	74	30	71
46	11	84	20	78	33	70	32	68	31	73	32	69
47					32	71	28	72	31	73	23	78
Illicit manufacture												
49	1	94	32	66	36	67	33	67	29	75	39	62
50	1	94	8	90	7	96	12	88	9	95	10	91
51	6	89	9	89	7	96	5	95	5	99	6	95
52	1	94	23	75	27	76	23	77	18	86	27	74
53	1	94	20	78	22	81	22	78	17	87	21	80
54			28	70	30	73	29	71	23	81	28	73
Diversion from licit channels												
67	13	82	11	87	16	87	10	90	12	92	6	95
68	6	89	6	92	8	95	8	92	9	95	4	97
69	6	89	6	92	9	94	7	93	9	95	4	97
70	10	85	9	89	10	93	4	96	7	97	2	99
Total Submission		95		98		103		100		104		101

Table 20: Data Coverage (As percentage of total world population)

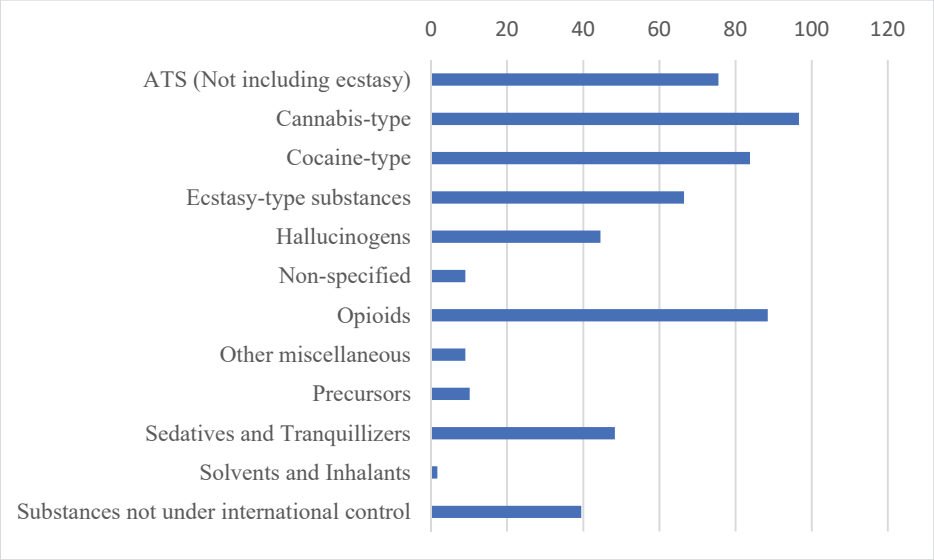
Part IV Question	2010	2011	2012	2013	2014	2015
Trafficking						
1	81.71	8272	80.29	64.43	83.96	85.47
2	70.58	71.13	66.57	44.43	63.71	64.36
Trafficking						
4	52.93	69.55	53.68	52.02	76.7	75.8
5	68.84	62.2	52.01	45.78	67.38	70.84
6	52.47	47.81	54.72	51.33	74.3	76.16
Trafficking						
7	44.16	68.24	44.42	46.99	73.78	71.77
8	29.2	38.13	14.91	36.19	46.79	24.22
Price and purity						
11		0.13	59.96	23.06	33.42	54.62
12			71.4	33.47	39.8	56.89
13	26.81	27.84	9.73	24.15	26.3	28.37
Price and purity						
15	74.03	75.87	65.64	51.67	46.95	49.2
16	49.56	45.84	54.79	33.5	31.59	48.5
17	71.73	71.5	64	46.66	63.22	68.07
18	25.85	25.85	35.34	35.83	30.71	49.36
Price and purity						
21			41.25	36.4	18.88	36.83
22			35.04	31.81	15.27	31.02
23		0.12	60.51	40.21	21.76	42.52
Drug related crime						
25	25.8	24.07	24.37	41.87	19.54	33.6
26	70.76	66.49	65.05	45.52	27.81	49.56
27	20.86	20.8	18.82	16.33	15.56	20.32
28	44.86	43.22	23.1	19.51	19.4	39
29	44.35	41.54	21.14	18.43	19.32	39.94
30	66.55	67.72	57.84	24.99	24.7	43.39

Table 21: Data Coverage (As percentage of total world population)

Part IV Question	2010	2011	2012	2013	2014	2015
Illicit drug cultivation and production						
32						
33	28.66	7.91	7.37	9.27	31.32	12.21
34	35	39.08	35.75	21.35	41.23	36.02
35	14.83	18.85	39.05	16.47	22.54	9.82
36	15.59	18.33	14.85	13.91	18.42	15.39
37	28.66	8.37	6.69	10.2	34.84	16.09
38	17.97	42.81	45.53	20.48	23.3	20.48
39	26.22	32.29	27.91	11.16	35.59	23.15
40	9.28	28.6	8.01	5.48	23.71	27.69
41	7.53	32.54	6.94	6.63	27.41	9.18
42	24.85	28.11	25.96	459	8.82	24.69
43	9.53	15.75	29.02	12.36	12.42	12.29
Illicit cultivation and production						
44						
45	39	36.98	33.3	17.11	34.13	37.55
46	9.53	15.75	36.11	19.91	20.84	35.8
47			33.97	12.93	17.37	14.22
Illicit manufacture						
48						
49	1.16	41.97	43.32	38.78	43.36	67.55
50	1.16	25.25	24.09	4.38	21.72	25.15
51	3.46	22.7	2.92	1.8	2.19	2.21
52	1.16	34.93	36.49	12.73	30.92	38.53
53	1.16	31.07	33.5	11.63	16.7	19.25
54		33.4	35.84	35.83	31.93	22.37
Diversion from licit channels						
67	27.16	27.53	49.15	6.98	9.8	4.21
68	24.15	7.8	28.59	6.79	5.88	1.31
69	24.15	7.8	44.54	6.72	8.36	3.56
70	7.35	27.4	11.12	5.14	8.74	0.65

4. Detailed analysis of data availability – Seizure

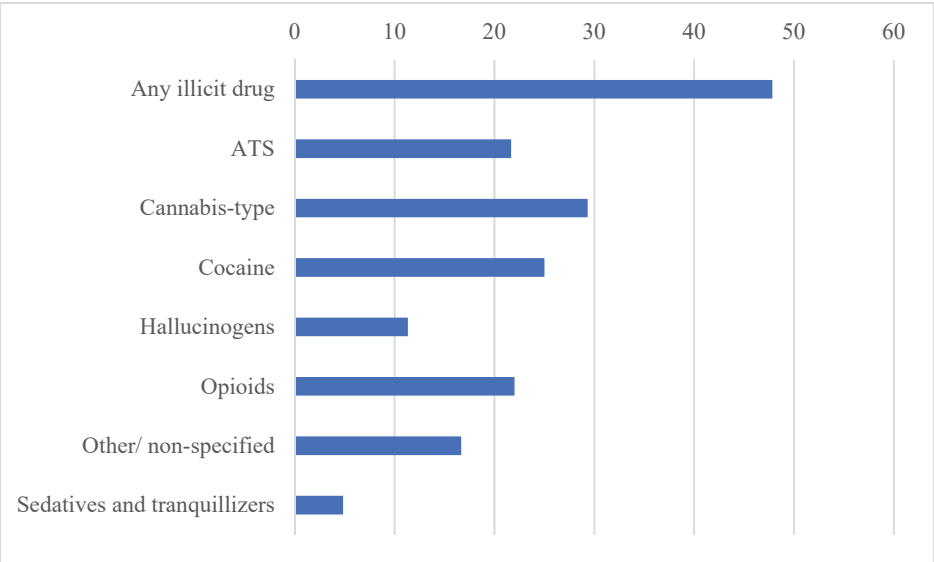
Figure 1: Average number of countries that provided seizure data on different type of drugs from 2010 to 2015.



5. Detailed analysis of data availability – Drug related crime

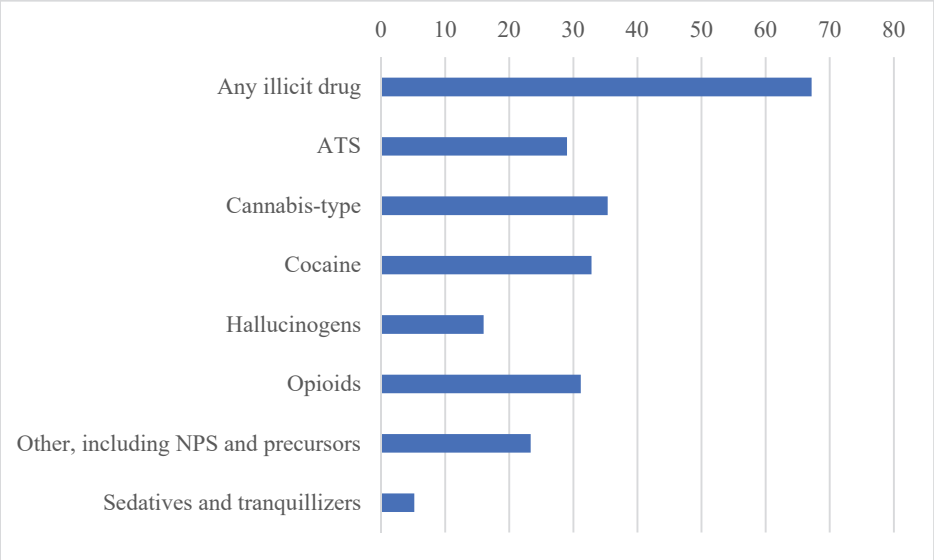
Personal drug-related offence

Figure 2: Average number of countries that provided personal drug-related office data (total number of offender) on different type of drugs from 2010 to 2015.



Drug trafficking

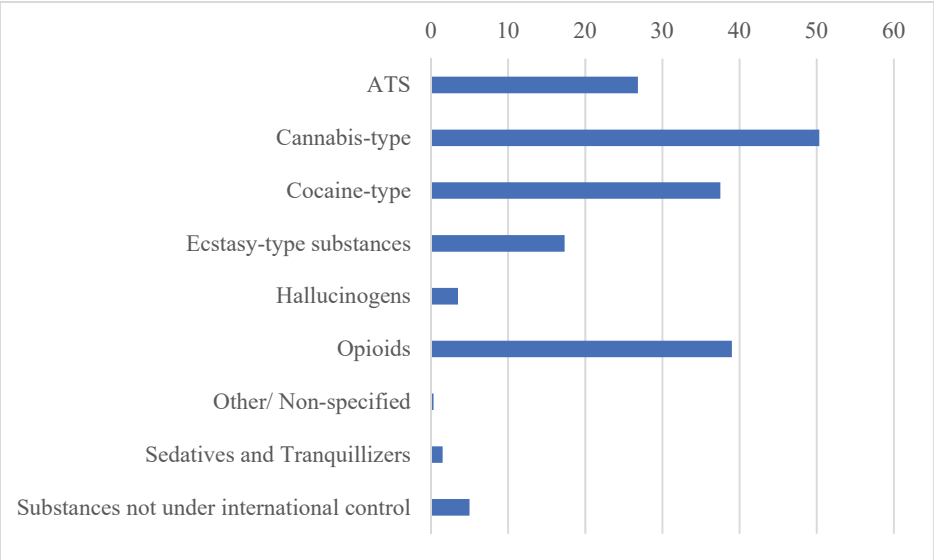
Figure 3: Average number of countries that provided trafficking offence data (total number of offender) on different type of drugs from 2010 to 2015.



6. Detailed analysis of data availability – Price

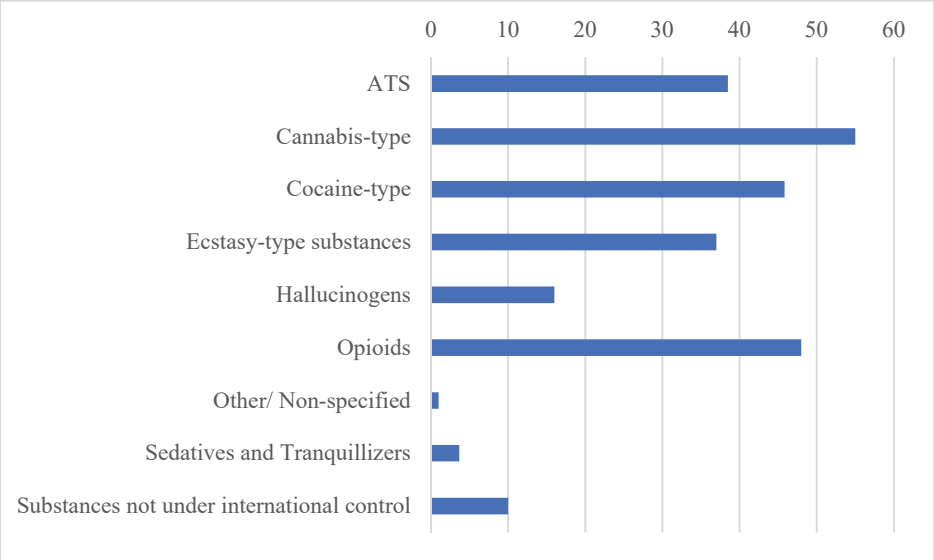
Price data at wholesale level

Figure 4: Average number of countries that provided typical price data at wholesale level from 2010 to 2015.



Price at street level

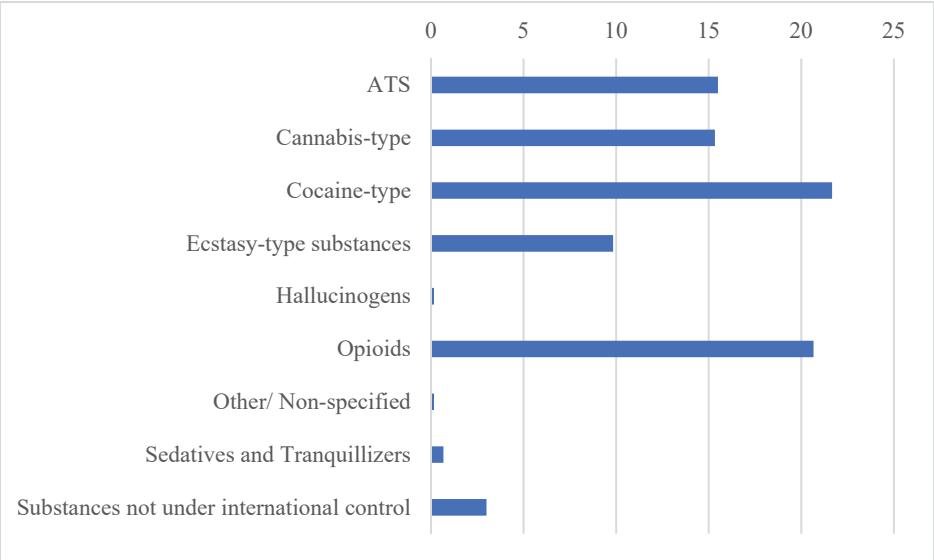
Figure 5: Average number of countries that provided typical price data at street level from 2010 to 2015.



7. Detailed analysis of data availability – Purity

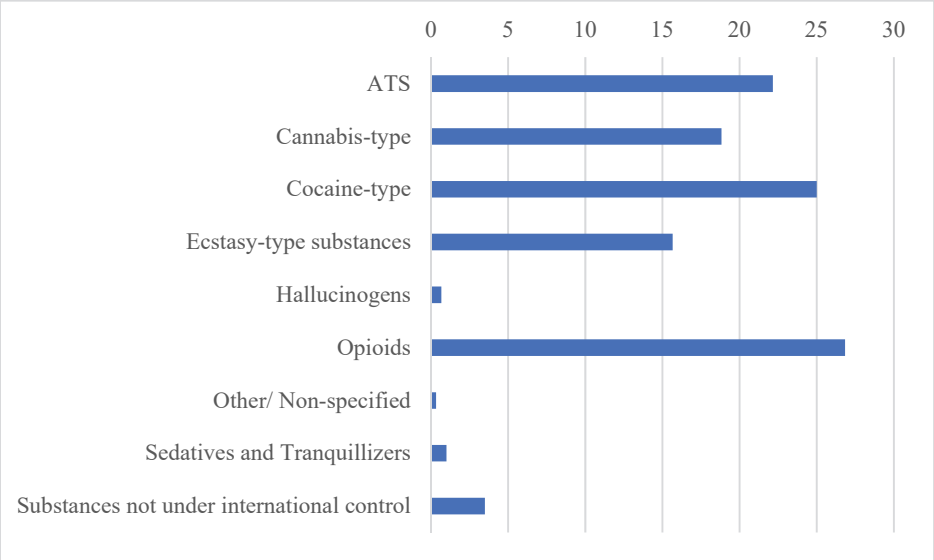
Purity at wholesale level

Figure 6: Average number of countries that provided typical purity data at wholesale level from 2010 to 2015



Purity at street level

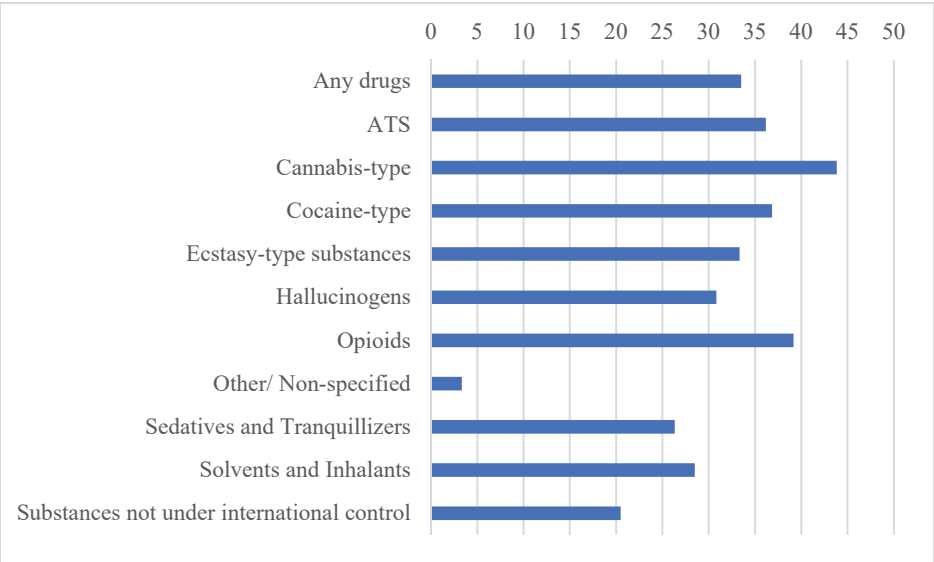
Figure 7: Average number of countries that provided typical purity data at street level from 2010 to 2015.



8. Detailed analysis of data availability – General prevalence

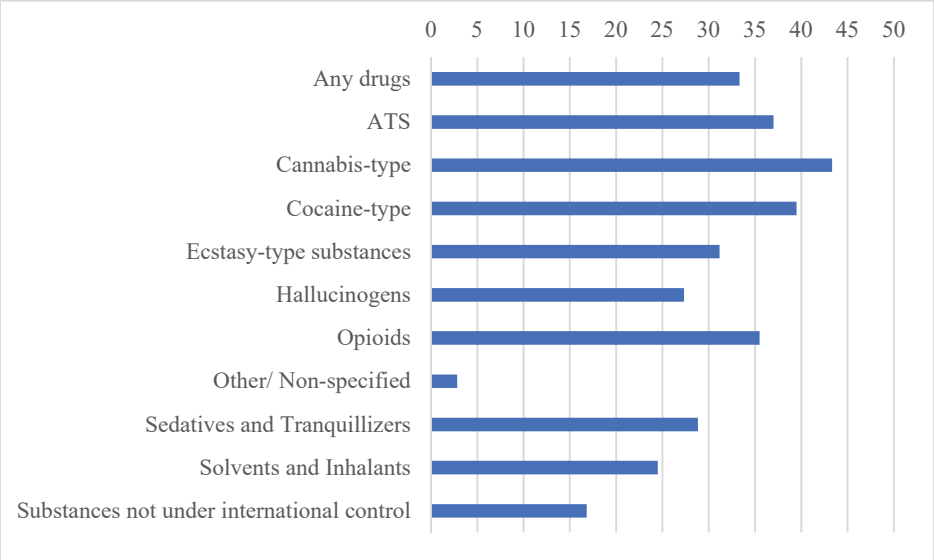
Life-time prevalence

Figure 8: Average number of countries that provided data on overall prevalence of different drugs from 2010 to 2015.



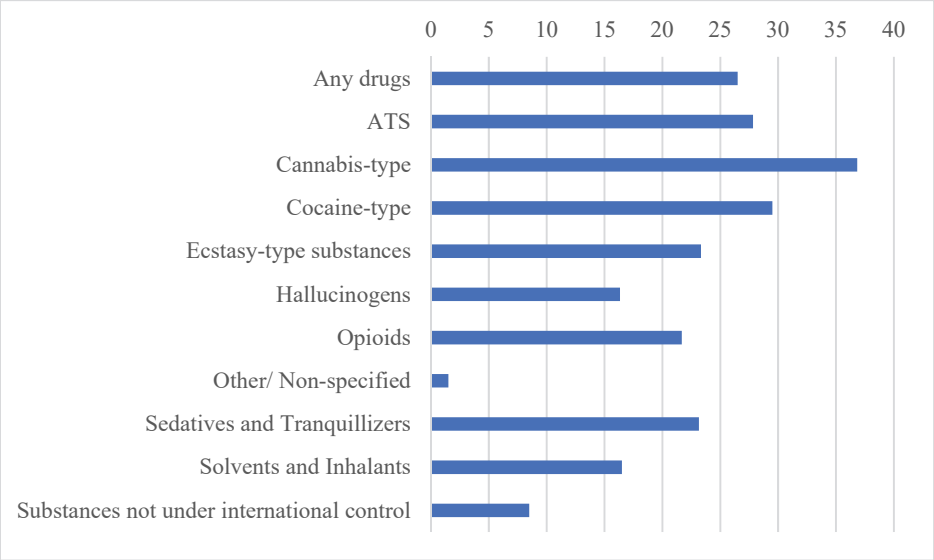
Annual prevalence

Figure 9: Average number of countries that provided data on overall annual prevalence of different drugs from 2010 to 2015.



Past 30-day prevalence

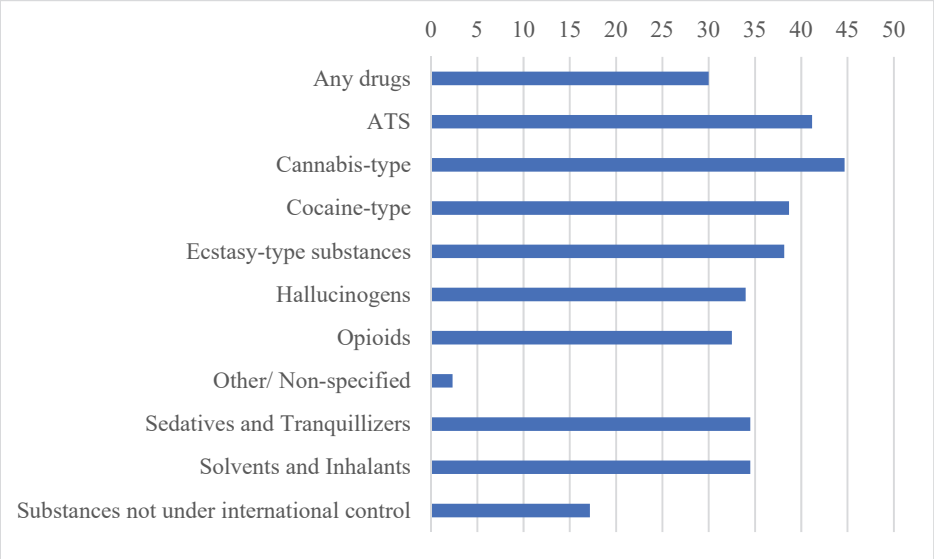
Figure 10: Average number of countries that provided data on overall past 30-day prevalence of different drug from 2010 to 2015.



9. Detailed analysis of data availability – Youth Prevalence

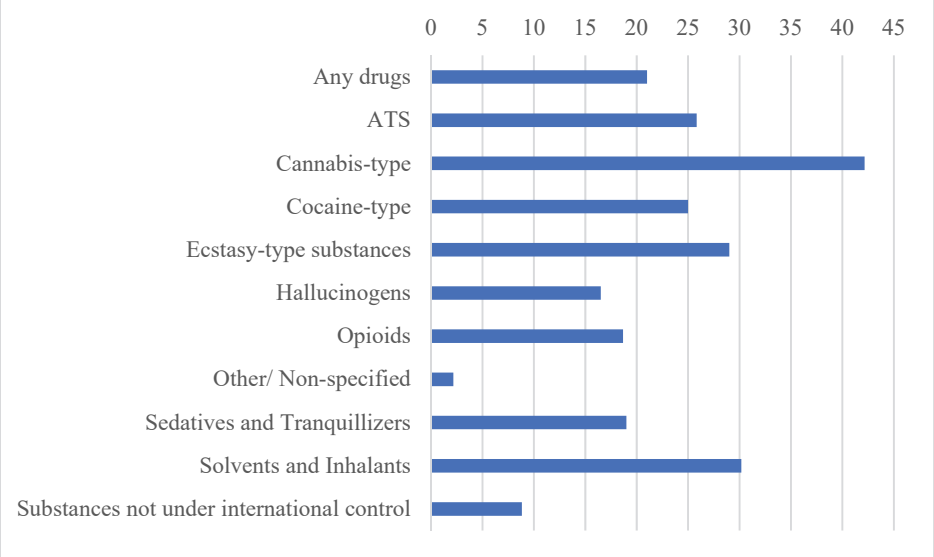
Life time prevalence

Figure 11: Average number of countries that provided data on overall life time prevalence of different drugs from 2010 to 2015.



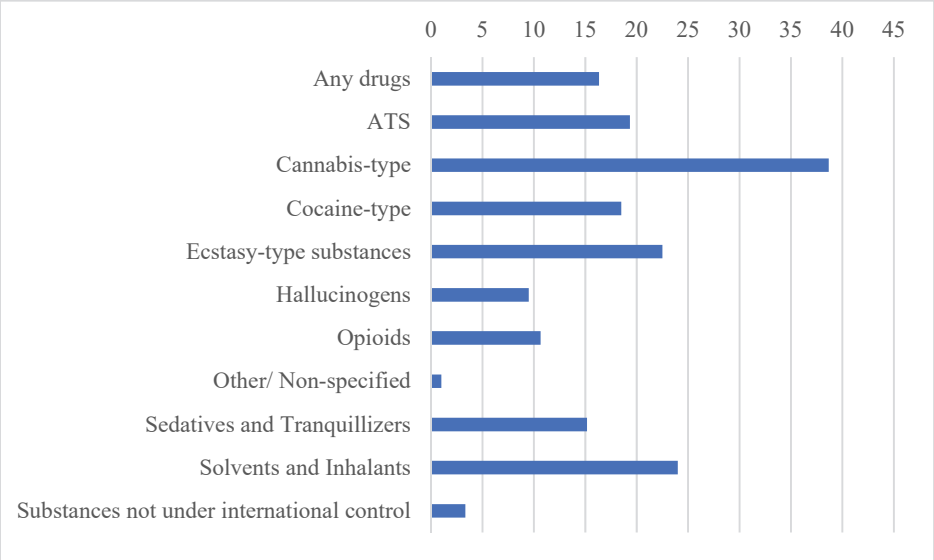
Annual prevalence

Figure 12: Average number of countries that provided data on overall annual prevalence of different drugs from 2010 to 2015.



Past 30-day prevalence

Figure 13: Average number of countries that provided data on overall past 30-day prevalence of different drugs from 2010 to 2015.



10. Detailed analysis of data availability – Mortality

Figure 14: Average number of countries that provided data on the total number of drug-related death from 2010 to 2015.

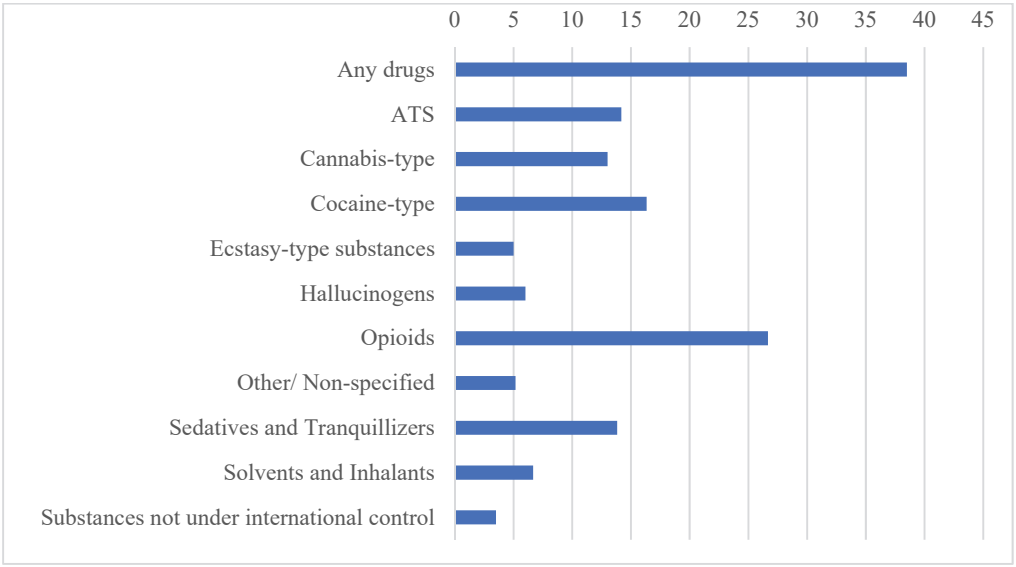


Figure 15: Average number of countries that provided data on the number of fatal drug overdoes from 2010 to 2015.

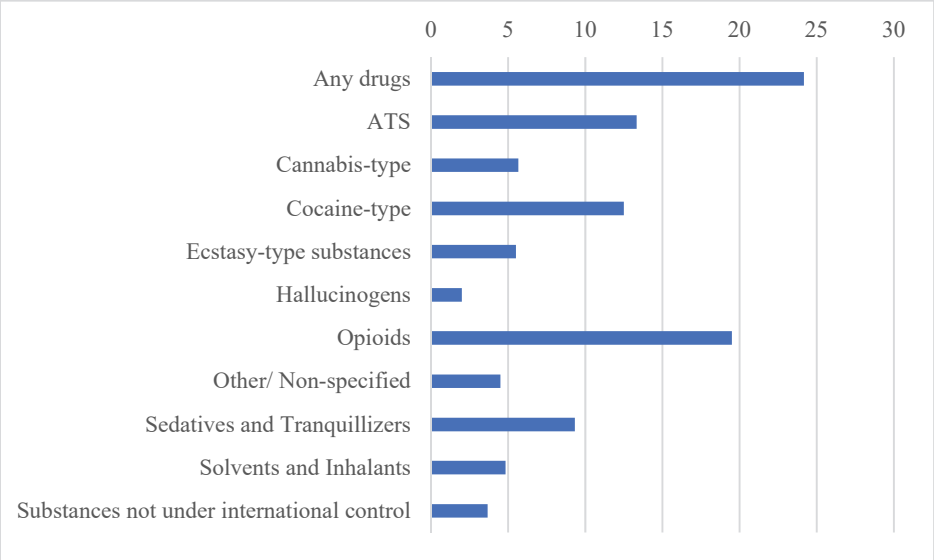
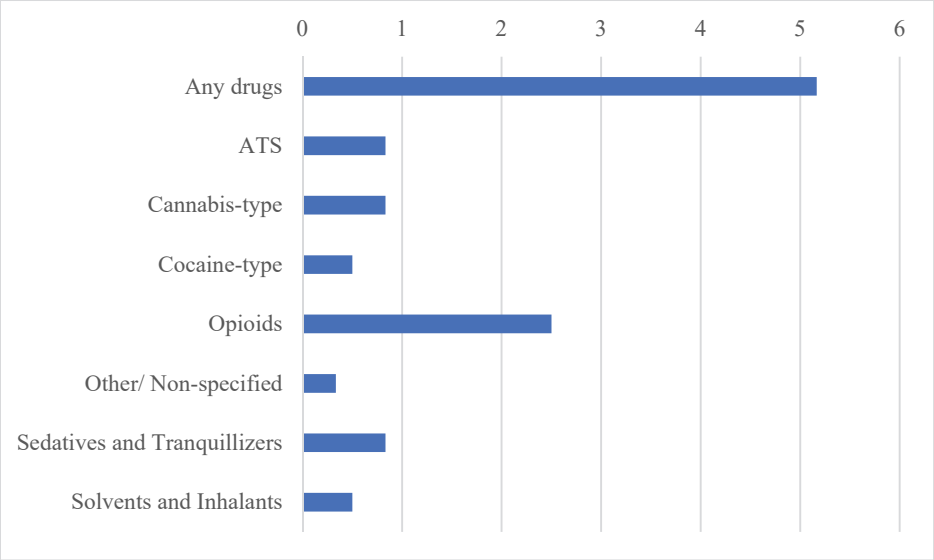


Figure 16: Average number of countries that provided data on the number of drug related HIV/ AIDS deaths from 2010 to 2015.



11. Detailed analysis of data availability – Treatment

Figure 17: Average number of countries that provided data on the number of people who received drug treatment from 2010 to 2015.

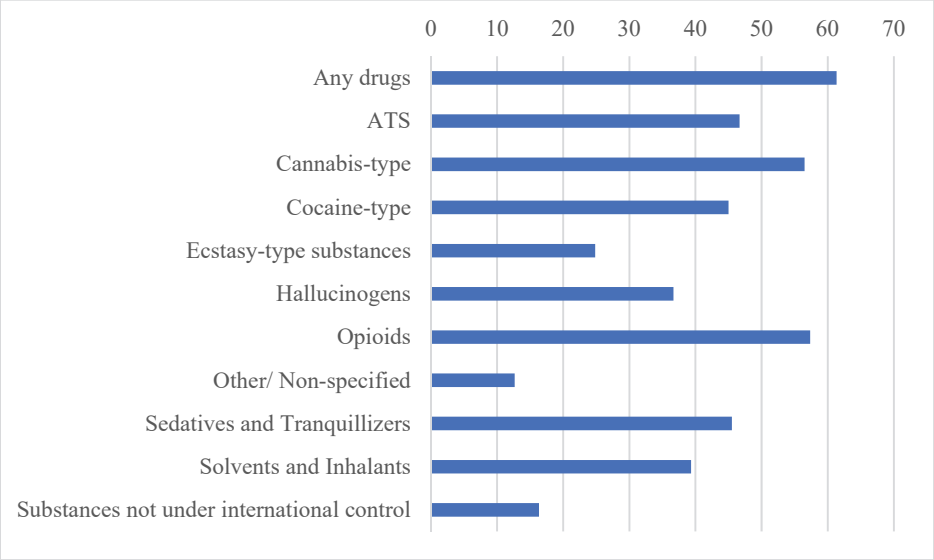


Figure 18: Average number of countries that provided data on the percentage of people in drug treatment for the first time from 2010 to 2015.

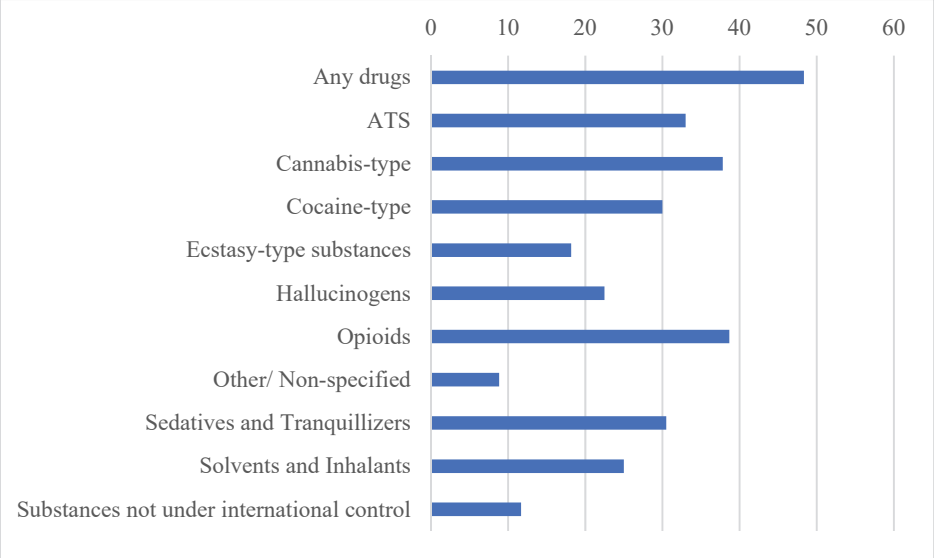


Figure 19: Average number of countries that provided data on the percentage of female in drug treatment from 2010 to 2015.

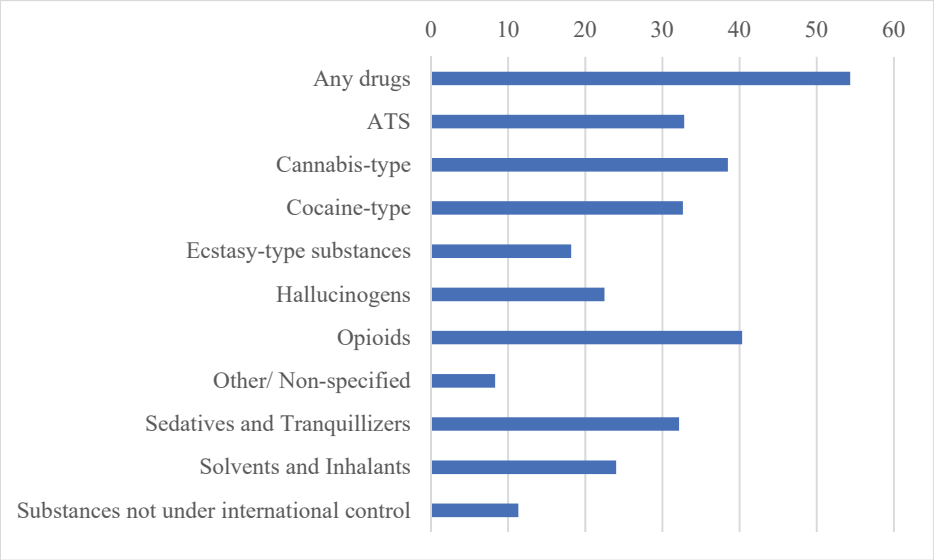


Figure 20: Average number of countries that provided data on the median age of people in drug treatment from 2010 to 2015.