Baseline report for Community Action on Harm Reduction (CAHR) project

International HIV/AIDS Alliance, Regional Technical Support Hub for Eastern Europe and Central Asia

This report provides the results of the baseline assessment study conducted in the beginning of CAHR project implementation in five countries, offers analysis of the obtained results, as well as recommendations for further research agenda and improvements of access to quality harm reduction services.

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Table of Contents

1. Abbreviations

Alliance - International HIV/AIDS Alliance

Alliance China - International HIV/AIDS Alliance – China office

Alliance India - India HIV/AIDS Alliance

BCC – behaviour change communication

CAHR - Community Action on Harm Reduction

CO – Alliance country office

FHI – Family Health International

KANCO - Kenya AIDS NGOs Consortium

Kiev TS Hub - Regional Technical Support Hub for Eastern Europe and Central Asia

LO –Linking organisation

LQAS - Lot quality assurance sampling

MAC - Malaysian AIDS Council

NACADA - National Agency for the Campaign Against Drugs

NSEP – needle and syringe exchange point

PQI – the Partnership for Quality Improvement

PWID - people who inject drugs

RID - respondent identifier code

OST – opioid substitution therapy

VCT – voluntary counselling and testing

2. Acknowledgements

This report is based on the results of the baseline study for Community Action on Harm Reduction (CAHR) project, which was implemented in Kenya, China, Malaysia, India, and Indonesia under the coordination of five national partners directly involved in CAHR implementation - Kenya AIDS NGOs Consortium (KANCO), International HIV/AIDS Alliance in China (Alliance China), Malaysian AIDS Council (MAC), India HIV/AIDS Alliance (Alliance India) and Rumah Cemara Indonesia. Country-specific reports developed by partner research agencies within those countries provided valuable contextual data that informed the development of this report. The following individuals significantly contributed to the development of the methodology for CAHR baseline study and, consequently, to obtaining the results: Timothy Abuya (Population Council) and Mlewa Kalama (KANCO) from Kenya, Martin Choo (Centre of Excellence for Research in AIDS at the University of Malaya) from Malaysia, Kaushik Biswas (Alliance India) from India and Sam McPherson (International HIV/AIDS Alliance) from the UK.

3. Executive summary

Community Action on Harm Reduction Project is implemented by International HIV/AIDS Alliance (the Alliance) through the support of the Ministry of Foreign Affairs of the government of the Netherlands and involves work in five countries – China India, Indonesia, Kenya, and Malaysia. The Project aims to significantly improve HIV and harm reduction services for PWID, their partners and children allowing them to become healthier, less marginalised and more engaged in social and community life.

The baseline study for CAHR project was implemented in a selection of sites across the five countries in order to obtain baseline data on a number of indicators that relate to drug injecting practices, risky injecting and sexual behaviour, interactions with the legal system, knowledge about HIV and safe injecting, access to and satisfaction with services, and quality of life of people who inject drugs (PWID). The study also attempted to determine certain associations between access to HIV-prevention services and risky injecting practices, as well as to identify contextual factors that might influence behaviours that put people at risk of HIV infection and quality of life of PWID.

The methodology used for the study was cross-sectional survey before and after intervention without comparison sites, where the “intervention” is CAHR project implementation. Quantitative data were collected through a structured questionnaire administered to PWID. The results of the quantitative data analysis were interpreted taking into account data obtained from observations and interviews performed by the project start-up team during the assessment and planning exercises in all countries.

The overall sample analysed was 942 respondents (177 in China, 186 in Kenya, 183 in India, 190 in Indonesia and 206 in Malaysia). The average age of the respondents was 35.1; 90.4% of the respondents were men and 9.6% - women. 90.0% of the sample reported using heroin, and about 50% of the respondents injected drugs every day during the past 30 days.

According to the study findings, the respondents from Kenya differed significantly from participants from other countries based on a number of alarming characteristics. They had the worst access to essential HIV prevention commodities including clean needles and syringes (18% compared to 51% within the total

sample received free needles and syringes during the last month), very rarely contacted HIV service organisations (less than 7% of the respondents in Kenya indicated using any harm reduction services (i.e. HIV testing and counselling, behaviour change communication) once a week or more often), felt being highly stigmatised (56% compared to 27%) and very unsafe and insecure (58% compared to 29%). The Kenyan respondents also reported the highest rate of sharing injecting equipment (48% of respondents from Kenya indicated sharing syringes/needles during the last injection compared to 18% within the total sample).

Several other disturbing findings of the study include high syringe sharing rates among the respondents in India (21.3% during the last injection), very low condom use in Malaysia (70.8% of the respondents did not use condoms during the last sexual intercourse), inadequately low access to needles and syringes in Indonesia and China (39% and 38% of harm reduction projects' clients correspondingly indicated receiving them during the last 12 months). The results of a logistic regression built based on the data collected through the study indicate that those who reported receiving needles/syringes had 1.5 times more chances of using a clean needle/syringe than those who did not. Additional parameters outside of the scope of this study were suggested for further analysis, such as criminalization of drug use, presence and scope of national and/or sub-national HIV prevention programs, certain cultural norms and barriers.

The obtained results highlight the importance of providing PWID with easy access to clean needles and syringes in sufficient quantities, decriminalisation of drug use and drug possession and provision of services that would improve the living conditions of PWID. Implementation of nation-wide government-led HIV-prevention strategies is required to protect the rights of drug users and ensure easy access to effective HIV-prevention services.

4. Introduction

This report provides the results of the baseline assessment study conducted in the beginning of CAHR project implementation in five countries, offers analysis of the obtained results, as well as recommendations for further research agenda and improvements of access to quality harm reduction services. Further analysis will follow the end-of-project evaluation, which will be carried out in three years time. The overall coordination of the CAHR baseline study, data analysis and development of the report were carried out by the Kyiv Regional Technical Support Hub for Eastern Europe and Central Asia (Kiev TS Hub). Kenya AIDS NGOs Consortium (KANCO), India HIV/AIDS Alliance (Alliance India), International HIV/AIDS Alliance in China (Alliance China), Malaysian AIDS Council (MAC), and Rumah Cemara, Indonesia - the key partners involved in CAHR implementation - were responsible for coordination and monitoring of the study implementation in their respective countries, as well as the development of country-specific reports. The studies were implemented by local research agencies selected by national partners: Sigma Research and Consulting (India); Centre of Excellence for Research in AIDS at the University of Malaya (Malaysia); Population Council (Kenya); Kunming Tangxishenggong Economic Information Consulting Company (China); and Health Research Unit, Faculty of Medicine, University of Padjadjaran (Indonesia).

The following sections of this report provide an overview of the CAHR project, summarise the aims and objectives of the study, describe the methodology used to generate the data, and provide key findings of the study. The section on key findings is structured in accordance with the questionnaire around the

following topics: social and demographic characteristics; drug injecting practices; risky injecting behaviour; police and law; sexual behaviour; knowledge about HIV/AIDS and safe injecting; HIV testing; services received by PWID and satisfaction with services; well-being and quality of life; factors associated with usage of clean needles and syringes. The final sections of the report provide a discussion of the findings and recommendations for further research and practice, as well as limitations of the study and main conclusions.

4.1. Overview of the CAHR Project

Community Action on Harm Reduction project, implemented by the Alliance with support of the Ministry of Foreign Affairs of the government of the Netherlands (as a project number 23389), started on 1 January, 2011. The project involves work in five countries – China, India, Indonesia, Kenya, and Malaysia – and engages a number of international technical partners. The time span of the project is four years.

The project supports the commitment of the Alliance to advance the development of evidence based responses to HIV epidemics among people who inject drugs (PWID). CAHR aims to significantly improve HIV and harm reduction services for PWID, their partners and children in China, India, Indonesia, Kenya and Malaysia. The project will introduce essential harm reduction interventions in Kenya; improve access to community-based support services in China; increase the quality of behaviour change programming in India and Malaysia; and expand quality harm reduction services to new communities with populations of PWID in Indonesia. It is expected that by the end of 2014 more than 230,000 PWID, their partners and children will benefit from a wide range of services (including HIV prevention, treatment and care, sexual and reproductive health and other services) designed and delivered within CAHR project. In addition, CAHR aims at protecting and promoting the rights of these groups by fostering an enabling environment for HIV and harm reduction programming in the five countries.

CAHR's programme goal is to ensure that by the end of the project injecting drug users, their partners and children are healthier, less marginalised and more engaged in social and community life.

Across all five countries the project emphasises the key role of PWID in the development and delivery of interventions and the importance of tailoring outreach and service combinations to address specific needs of epidemiologically significant segments within PWID populations. The project promotes interventions that not only address public health challenges faced by PWID, but also support human rights and quality of life objectives. CAHR explores service improvements related to behavioural and biomedical, as well as structural, interventions. The project partnership is committed to support the development of evidence-based combinations of effective services guided by the accepted good practice programming standards on HIV and drug use. The current combination of interventions, recommended by the Alliance, is broader than the WHO recommended essential list of interventions for HIV work among PWID, and includes a range of supportive services designed to improve programme uptake and retention, to increase the effectiveness of HIV prevention and care interventions, as well as to address the essential needs of the target audiences.

In Malaysia, the improvements to quality and provision of services will apply at a national scale. In other countries the project will work to establish relationships with key harm reduction stakeholders and engage in a joint dialogue regarding the required service improvements and adjustments of approaches,

as well as the scale-up of interventions to required coverage levels. There is a strong focus on building the capacity of community based organisations and sharing knowledge about what works.

The programme is structured around four objectives:

Objective 1: To improve access to HIV prevention, treatment and care, sexual and reproductive health, and other services for people who inject drugs in China, India, Indonesia, Kenya and Malaysia.

Objective 2: To increase the capacity of civil society and government stakeholders to deliver harm reduction and other health services to people who inject drugs and their partners in China, India, Indonesia, Kenya and Malaysia.

Objective 3: To promote and protect the human rights of people who inject drugs and their partners in China, India, Indonesia, Kenya and Malaysia, and advance their rights within global institutions.

Objective 4: To increase learning about effective and efficient harm reduction programmes in China, India, Indonesia, Kenya, Malaysia, Ukraine, and globally.

The expected medium and long-term results of CAHR project implementation include improvements in service accessibility and uptake by PWID, changes in HIV-related knowledge and behaviour and, as a result, decreasing HIV-incidence rates among PWID in the locations targeted by the project. In order to measure whether these changes did take place a baseline assessment and a corresponding end-of-project evaluation are being conducted among project clients as well as PWID not previously reached by HIV prevention services. The aim and objectives of the study are as follows:

The goal of the baseline assessment is to capture the attitudes, knowledge, and behaviours of PWID at the beginning of CAHR project implementation for further comparison with end-of-project evaluation results. The baseline assessment was carried out at the end of project year 1 and a corresponding end-of-project evaluation will be conducted in year 4.

The baseline survey and end-of-project evaluation attempt to answer the following questions:

1. Which harm reduction services did PWID receive? Are there any associations between the services received and HIV-related knowledge / attitudes / behaviour of PWID? Are there any associations between the services received and quality of life of PWID?
2. To what extent the services provided are demand driven? What are the key factors that make the service attractive / not attractive to the clients? What are the cross-country variations between service availability and uptake?
3. Are there any changes in knowledge / attitudes / behaviour of PWID in relation to HIV/AIDS before and after project implementation? Which factors determined these changes? Are there any cross-country variations?
4. Are there any changes in well-being and quality of life of PWID before and after project implementation? Which factors determined these changes? Are there any cross-country variations?
5. What are the PWID's relations with police / experience with compulsory drug rehabilitation / detention centres? Were there any changes in these before and after project implementation? Are there any cross-country variations?

Although not all these questions are answered in this report, the obtained baseline results provide data for a number of indicators that will later be compared to the end-of-project evaluation results. The baseline assessment questionnaire (annex 1) provides details on the key parameters that are tracked and analysed within the study.

5. Methodology

5.1. Study design

The selected study design that was used for the baseline assessment and will be used for the future end-of-project evaluation is a cross-sectional survey before and after intervention without comparison sites, where 'intervention' is the CAHR project. The study is being implemented in five CAHR countries, within CAHR implementation sites (approximately 3 per country). Quantitative data was collected using a structured questionnaire administered to PWID by a network of interviewers.

Inclusion criteria for participation in the study included being a PWID (the interviewer asked a number of set questions to ascertain this); living, studying or working in the given geographical area; willingness to participate in the survey and to provide data for the respondent identifier code (RID). An informed consent was obtained from each respondent before the beginning of the interview.

A local research agency was selected in each country to carry out the survey, with close coordination and quality control on the part of Monitoring and Evaluation Officers within the Alliance country offices / Linking Organisations (COs/LOs). Field Coordinators from the selected research agencies conducted quality checks of the data collection process by means of direct observation (of at least 10% of all interviews conducted at a given location) and control for double inclusion of the same respondents into the study. Additional independent quality checks were conducted by the Alliance LO/CO representatives by means of direct observation and exit-polls (secondary interviewing of the respondents when they exit the interview location).

The timeline of the baseline assessment was 1 November, 2011 – 1 February, 2012.

5.2. Sampling strategy

To minimise systematic bias in sample selection during baseline as well as to document attributive factors between surveys at baseline and end line, a systematic process of selecting a sample of respondents was designed. The sample within each country was composed of two sub-groups: PWID who accessed HIV prevention/harm reduction services during the past year before the start of CAHR project ('old' clients), and those who received prevention services for the first time in their life within the project ('new' clients). The following sample composition was determined: no less than one third of the sample size per country was to be composed of 'old' project clients; and no less than one third was to be composed of 'new' clients, who presented for services for the first time.

In order to establish the sample size for each country the following approach was taken: the baseline figures and the desired targets for the key variable of interest for this study ("Percentage of injecting drug

users reporting the use of sterile injecting equipment the last time they injected") formed the basis for sample size calculation adopted from FHI/PQI programme (annex 2 provides details on sample size calculation). The approach is used widely for sample size calculations for studies which utilise repeated surveys (for example two time points). The components for the calculation are:

i). Design effect (using 1 for simple random sampling LQAS or stratified sampling and 2 for cluster sampling)

ii).$\mathbf{Z_a}$-Confidence interval for either two or one tailed test

ii). $\mathbf{Z_b}$- Power -the probability of detecting a change

iii). Estimated baseline prevalence of indicator of interest.

iv). Estimated Final Prevalence- targets set for each program site.

Using the above measures table 1 below summarises the sample size for each country based on available baseline measures, targets that the programmes considered feasible to achieve and the estimated sample size for each country. This is based on a design effect of 2, $Z_{\square}$ of 1.96 (95%CI for a two tailed test) and $Z_{\square}$ of 0.8416 (80% power)

	Baseline estimates (%)	**Project targets (%)**	**Estimated sample size (n)**	**Source**
Kenya	35	55	186	Phillip Nieburg and Lisa Carty (2011) HIV prevention among injection drug users in Kenya and Tanzania: New opportunities for progress A report of the CSIS: Global health policy centre
Malaysia	83	95	206	UNGASS Report
Indonesia	35	55	186	National AIDS Commission Report
India	50	70	181	Due to country variation India decided to use a 50% estimate at baseline
China	52	72	177	CDC of Chenghua and JInniu districts

Table 1: Sample Size Calculation for each country

Further, the sample for this assessment was achieved as a result of the following process:

1. The sample size per country was distributed between the established geographical locations for sampling (selected out of the CAHR sites);
2. Within each selected location the sample size was further distributed between 'old' and 'new' clients;
3. The sample of 'old' and 'new' clients was selected based on the following methodology:

- For recruitment of 'old' clients, simple random sampling without replacement had been used to ensure that all existing clients in a recruitment site at baseline had an equal chance of selection.
- Convenience sampling was used for recruitment of 'new clients'. To ensure the attainment of sufficient number of new clients within the determined timeframe, each new client was invited to participate in the survey.

5.3. Sites selection

Malaysia

Three sites were selected in Malaysia based on their geographical location (South, North and East Coast) which represents the different characteristics of drug users and various practices of drug use. There were existing implementing partners of MAC in all three sites, of which one of the partners was in the process of identifying and opening a new site that would supply new clients for this study, and the other two sites supplied a mix of new and existing clients [1].

Kenya

Kenya identified three CAHR project sites for the survey, which were selected based on the existing data on the distribution of injecting drug use in the country. The three sites were Nairobi (the capital of Kenya), Mombasa and Kilifi County located in the coastal zone of the country. The rationale for this choice of sites was the high prevalence of heroin use in the coastal towns of Mombasa and Malindi (Kilifi County) and the capital Nairobi. A study conducted by the National Agency for the Campaign against Drugs (NACADA) established that 56.3% of drug users at the Coast and 50% in Nairobi were consumers of heroin unlike other regions where heroin consumption was less than 30% [2]. Very limited harm reduction[1] services were provided in Kenya at the time of baseline, mainly limited to HIV counselling and testing and behaviour change communication.

India

In India the three selected sites were Delhi, Manipur and Haryana. Manipur was the first state in South East Asia to adopt harm reduction as a state policy in 1996, which led to significant decrease in HIV prevalence from 75% to 22%; however additional prevention efforts are necessary to sustain the achieved results. Delhi is one of the states in India with high prevalence of HIV among PWID population, which is mostly mobile in nature, as well as very high prevalence of injecting drug use. PWID mostly use pharmaceutical drugs, which are easily available over the counter. Haryana is another important site for the study, as limited information is currently available on drug use practices in this area, although drug use is highly prevalent [3].

China

Chenghua district and Jinniu district of Chengdu were selected as CAHR sites (and baseline assessment sites) in China for the following reasons: the 2 districts have a high HIV/AIDS epidemic burden and a

[1] Scarce services provided to people who use drugs at the time of the project launch cannot be strictly defined as harm reduction services. Although provided by civil society organisations generally supportive of harm reduction ideology, the services did not include distribution of sterile injecting instruments and mostly offered basic counselling, testing, as well as 'moral' support mixed with strong orientation towards abstinence. Nevertheless the providers of these 'proxy harm reduction' services had good rapport with the PWID community and became the platforms for the development of harm reduction programmes.

significant number of PWID; there were few prevention programs funded or implemented by international organisations there before; both these sites are in the downtown area of Chengdu; and they had some services for PWID available before CAHR [4].

Indonesia

The three sites selected in Indonesia are Bandung (the capital city of West Java province), Bogor, and Sukabumi, all three located in West Java province. The first two sites mentioned already had HIV prevention services for PWID, while Sukabumi is a new one. The three sites represent different characteristics of drug use practices, with Bogor and Sukabumi still flooded with heroin users, while PWID in Bandung are moving towards injecting buprenorphine [5].

5.4. Data collection, analysis and quality assurance

Data collection, data entry and aggregation, as well as quality control were done in countries by local research agencies. Field-level implementing partners of the Alliance LO/CO providing services to PWID played an important role in the study by means of providing the research agencies with access to the target population of the study and venue for conducting interviews. Alliance LO/CO representatives coordinated the study at all stages, and verified the adherence of the research team to the study design. Completed country data sheets were aggregated and analysed by the Kyiv TS Hub. The preliminary analysis results were presented at the 2012 International AIDS Conference in Washington DC. Each of the five CAHR countries produced its own analytical report, which analyses country-specific assessment results, provides insight into the contextual factors that predetermined them, and outlines specific recommendations as to the improvement of programmatic activities within CAHR.

Quality assurance of the interviewing stage of the baseline assessment was carried out in order to ensure its compliance with the survey methodology. This included the following: (i) Sample quality control (avoiding interviewing the same respondents for the second time); (ii) Control for the adherence to the interviewing procedure, ethical standards and protection of the respondents' rights for anonymity and confidentiality; (iii) Secondary interviewing of the respondents when they exit the interview location in order to assure their correspondence to the inclusion criteria and correct completion of the respondent identifier codes by the interviewer (carried out for at least 10% of the respondents at each site). The methods of quality assurance that were used included direct observation and exit-polls.

6. Results

6.1. Sample description

The overall number of questionnaires that were accepted for analysis was 942 (177 in China, 186 in Kenya, 183 in India, 190 in Indonesia and 206 in Malaysia). There are some variations between the recommended sample sizes described within the methodology section above and the actual number of completed questionnaires that were analysed, due to (i) oversampling, in case some of the questionnaires will not be considered valid for analysis; and (ii) exclusion of some of the invalid

questionnaires from the analysis due to incompleteness or presence of mistakes. All countries except for Malaysia adhered to the sampling methodology and used random sampling for old clients and convenience sampling for new ones. In Malaysia only convenience sampling was used for recruitment of both 'old' and 'new' clients. In Indonesia, there is a non-confirmed bias of overrepresentation of older users of heroin who have been in a long term contact with a variety of services, with a significantly larger proportion of HIV positive participants in the sample compared to other countries.

6.2. Social and demographic characteristics

Overall, 90.4% of the respondents were men and 9.6% - women. Only in India all the respondents were male (women who used drugs did not happen to get selected within the random sample). The average age of the respondents was 35.1. The overall distribution between new clients and PWID previously reached with services was 31.6% and 68.4% respectively. All countries except for India adhered to the principle of 'old'/'new' clients distribution (not less than 1/3 of the sample should have been composed of 'old' clients and not less than 1/3 – of 'new'). In India the whole sample was composed of PWID previously reached by prevention services, due to the last minute change of CAHR site from a new location to a previously existing site based on government partner's suggestion.

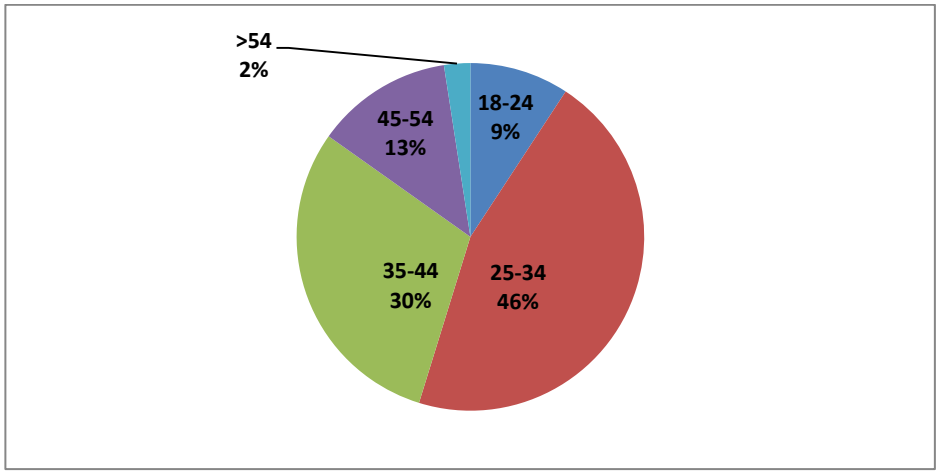


Fig. 1. Distribution of the respondents by age

The majority of the respondents (86%) have been living in the respective assessment areas since birth or for more than 10 years.

The lowest level of education was reported in Kenya, where the majority of the respondents indicated primary education (58%), and the highest in Indonesia: 48% indicated complete high school, and 46% - incomplete or complete college/university.

36% of the respondents reported having 'occasional earnings', 27% were unemployed, 12% were permanently employed, and the rest indicated 'other' as their main occupation. Only a little more than 1% of all respondents were students. The highest number of unemployed respondents was reported in China – 66% of the country sample. The fraction of respondents who do not have means to support themselves varies from 2.1% in Indonesia to 15.5% in Malaysia.

On average, about 38% of all respondents reported having a husband/wife or a permanent sexual partner. The highest representation of this characteristic was in Indonesia and China (more than 50%). About 34.2% respondents do not have sexual partners – this group was the biggest in Malaysia with about 60% of all respondents choosing this option. On average, 32% of the respondents live by themselves (varies from 8% in Indonesia to 46% in Malaysia).

Table 2 presents a summary of socio-demographic characteristics of the respondents.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p-values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Male	139 (78.5)	158 (85.0)	183 (100)	179 (94.2)	193 (94.0)	852 (90.4)	<0.01
Female	38 (21.5)	28 (15.0)	0 (0)	11 (5.8)	13 (6.3)	90 (9.6)	
Average age	42,4	30.7	32,2	32,4	37,8	35,1	
'old' client	119 (67.2)	123 (66.1)	183 (100)	108 (56.8)	117 (56.8)	644 (68.4)	<0.01
'new' client	58 (32.7)	63 (33.9)	0(0)	82 (43.2)	89 (43.2)	298 (31.6)	
Education							
No education	2 (1,13)	31 (16,67)	45 (24,6)	0 (0,0)	3 (1,46)	82 (8,7)	<0.01
Primary education or incomplete high school	31 (17,5)	136 (73,1)	92 (50.3)	10 (5,3)	123 (59,7)	391 (41,5)	
Complete high school or incomplete college	141 (79,7)	18 (9,7)	38 (20,8)	142 (74,7)	75 (36,4)	414 (44,0)	
Complete college / university	3 (1,7)	1 (0,5)	8 (4,)	38 (2)	5 (2,4)	55 (5,8)	
Occupation							
Student	0 (0,0)	5 (2,7)	1 (0,6)	2 (1,1)	3 (1,5)	11 (1,2)	>0.1
Permanently employed	33 (18,6)	1 (0,5)	9 (4,9)	34 (18,0)	36 (17,5)	113 (12,0)	<0.05
Occasional earnings	14 (7,9)	108 (58,4)	67 (36,6)	50 (26,5)	102 (49,5)	341 (36,3)	<0.01
Unemployed	117 (66,1)	22 (11,9)	23 (12,6)	35 (18,5)	54 (26,2)	251 (26,7)	<0.01
House-keeper	0 (0,0)	0 (0,0)	2 (1,09)	3 (1,59)	0 (0,0)	5 (0,5)	>0.1
Disabled	0 (0,0)	1 (0,5)	0 (0,0)	0 (0,0)	0 (0,0)	1 (0,1)	>0.1
Means of supporting oneself							
Earning salary	43 (24,3)	25 (13,4)	28 (15,3)	76 (40)	90 (43,7)	262 (27,8)	<0.01
Income from business/property	29 (16,4)	67 (36,0)	10 (5,5)	107 (56,3)	26 (12,6)	239 (25,4)	
Social support from the sate	29 (16,4)	0 (0,0)	0 (0,0)	0 (0,0)	12 (5,8)	41 (4,4)	
Family support	59 (33,3)	15 (8,1)	36 (19,7)	106 (55,8)	10 (4,9)	226 (24,0)	
No means of support	8 (4,5)	4 (2,2)	7 (3,8)	4 (2,1)	32 (15,5)	55 (5,8)	<0.05
Marital status							
Married/permanent partner, no occasional partners	89 (50,3)	69 (37,1)	52 (28,4)	107 (56,3)	40 (19,6)	357 (38,0)	<0.01
Married/permanent partner, but have occasional partners	3 (1,7)	36 (19,4)	17 (9,3)	19 (10,0)	6 (2,9)	81 (8,6)	<0.05

No permanent partner, but have occasional partners	9 (5,1)	31 (16,7)	65 (35,5)	39 (20,5)	36 (17,7)	180 (19,2)	<0.01
Neither permanent nor occasional partners	76 (42,9)	50 (26,9)	49 (26,8)	25 (13,2)	122 (59,8)	322 (34,3)	
Living							
Alone	63 (35,6)	78 (41,9)	48 (26,2)	15 (7,9)	94 (45,6)	298 (31,6)	<0.01
With husband / wife	108 (61,0)	31 (16,7)	45 (24,6)	76 (40,0)	24 (11,7)	284 (30,2)	
With parents	43 (24,3)	26 (14,0)	70 (38,3)	112 (59,0)	44 (21,4)	295 (31,3)	
With children	26 (14,7)	6 (3,2)	15 (8,2)	38 (20,0)	10 (4,9)	95 (10,1)	<0.05
With friends / roommates	0 (0,0)	9 (4,8)	22 (12,0)	11 (5,8)	30 (14,6)	72 (7,6)	<0.05
Partner injecting drugs							
Yes	32 (29,6)	6 (19,4)	1 (2,2)	15 (19,7)	14 (20,6)	68 (20,7)	<0.01
No	76 (70,4)	19 (61,3)	43 (95,6)	61 (80,3)	54 (79,4)	253 (77,1)	
Having children							
One child	76 (42,9)	71 (38,2)	19 (10,4)	56 (29,5)	29 (14,1)	251 (26,7)	<0.01
Two children	8 (4,5)	29 (15,6)	34 (18,6)	22 (11,6)	25 (12,1)	118 (12,5)	>0.1
Three	2 (1,1)	8 (4,3)	8 (4,4)	6 (3,2)	23 (11,2)	47 (5,0)	
Four or more	0 (0,0)	8 (4,3)	2 (1,1)	3 (1,6)	10 (4,9)	23 (2,4)	
None	91 (51,4)	70 (37,6)	36 (19,7)	103 (54,2)	118 (57,3)	418 (44,4)	<0.01

Table 2. Socio-demographic characteristics of the respondents

6.3. Drug injecting practices

This section describes drug injecting practices of the respondents in five countries.

In Kenya the proportion of new entrants in drug use was the highest – nearly ¼ of all respondents initiated drug use during the last year. This is characteristic of a relatively new drug scene in the country.

About 50% of the respondents injected drugs every day during the past 30 days, with the lowest frequency of drug use in Indonesia (only 12% injected every day), and the highest – in Malaysia (78%) and Kenya (63%). The injecting frequency could indicate the required direction for further development of harm reduction services. Thus higher injecting frequency calls for intensified efforts to ensure availability of sterile injecting equipment. At the same time the higher injecting frequency in Kenya and Malaysia could be associated with the more restricted access to substitution maintenance treatment in Kenya and poor quality of MMT programmes in Malaysia. The average number of injections on an average day of injecting was 2.3, with the lowest in India (1.7) and the highest in Kenya (3.1). The data demonstrates significant variations in drug use patterns and frequency across the countries and specific sites. More detailed information on injection frequency is required at the country as well as specific site level in order to determine the most appropriate supply of prevention commodities by harm reduction programmes. This information can be effectively collected through participatory assessments involving local communities of people who use drugs at a given site.

About one third of all respondents indicated receiving opioid substitution therapy (OST) (34.3%) with huge differences across the countries: more than 70% of respondents in China indicated receiving OST and only a little more than 5% in Kenya. Methadone maintenance treatment (MMT) programme in Kenya

has been piloted since 2010; however it is only privately available, and is only accessed by relatively well-off segment of PWID, thus coverage remains very low. The presence of MMT clients in the relatively small survey sample indicates the significant demand for this service and highlights the importance of developing this essential component of harm reduction services. The numbers for China do not reflect the access levels to MMT across the country, as existing estimates (data supplied by AIDS Care China) suggest that the despite the relatively large scale of this service in China it is accessed by as little as 20% to 30% of the estimated population of PWID. The presence of MMT clients in the Kenyan sample suggest that expanding commercial availability of Methadone in the country paralleled with significant price reductions for the service could potentially attract a significant proportion of potential clients. Improved access to MMT is now becoming one of the main targets for the Kenyan harm reduction initiatives (including CAHR) following the recent launch of civil society-based needle and syringe programmes in the country.

Opiate overdoses during the last 12 months were reported by almost 30% of the respondents with, again, the largest variations from the mean value indicated in Indonesia and China (10%) and Kenya (about 50% of the respondents). Reported low overdose prevalence in China might be explained by consistently low purity of heroin available on the Chinese market. However the low prevalence figure for China is also influenced by the high prevalence of MMT clients among the Chinese respondents. Low overdose prevalence in Indonesia may be associated with the high prevalence of people who self-identify as 'recovering' drug users in the Indonesian sample.

There are considerable cross-country variations in where the respondents prefer to prepare and inject the drugs. In China, the majority indicated that they use the drugs at home by themselves (83.6% of the respondents indicated this option); while in Kenya the majority chose the option "in the streets, yards, and other public areas" (89.8%). These patterns present significantly varying requirements to harm reduction programmes, which need to employ very different approaches to outreach work and service delivery models in the drug scenes with predominantly home-based use on one hand and street use on the other. There are site level variations (e.g. relatively high prevalence of street use in urban sites of Malaysia associated with the high prevalence of homelessness among PWID), which should be explored in more detail through participatory site assessments or other similar in-depth community-based studies. The very high prevalence of collective home-based use in India and Indonesia (71% for both countries) calls for more in-depth exploration of injecting practice in these countries with a specific focus on the risk of sharing contaminated equipment and substances.

Table 3 presents a summary of drug injecting practices of the respondents

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p-values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Frequency of injecting during last 30 days							
Once	22 (12,4)	4 (2,2)	17 (9,3)	33 (17,4)	4 (1,9)	80 (8,5)	<0.05
2 – 3 times	28 (15,8)	5 (2,7)	37 (20,2)	56 (29,5)	17 (8,3)	143 (15,2)	<0,01

Once a week	6 (3,4)	3 (1,6)	23 (12,6)	4 (2,1)	1 (0,5)	37 (3,9)	<0.05
2 – 3 times a week	15 (8,5)	29 (15,6)	18 (9,8)	15 (7,9)	6 (2,9)	83 (8,8)	>0.1
4 – 6 times a week	8 (4,5)	26 (14,0)	20 (10,9)	17 (9,0)	16 (7,8)	87 (9,2)	
Once a day	95 (53,7)	117 (62,9)	58 (31,7)	23 (12,1)	161 (78,2)	454 (48,2)	<0,01
Have not injected during last 30 days	1 (0,6)	1 (0,5)	10 (5,5)	42 (22,1)	1 (0,5)	55 (5,8)	
Number of injections on an average day of injecting							
Once a day	66 (37,3)	16 (7,0)	87 (47,5)	84 (44,2)	33 (16,0)	283 (30,0)	<0.01
2 – 3 times	80 (45,2)	81 (43,6)	74 (40,4)	84 (44,2)	110 (53,4)	429 (45,5)	>0.1
At least 4 times a day	26 (14,7)	91 (48,9)	13 (7,1)	21 (11,1)	62 (30,1)	213 (22,6)	<0.01
Receiving opioid substitution treatment							
Yes	125 (70,6)	10 (5,4)	65 (35,5)	55 (29,0)	68 (33,0)	323 (34,3)	<0.01
No	52 (29,4)	175 (94,1)	118 (64,5)	135 (71,1)	138 (67,0)	618 (65,6)	
Experienced overdose during last 12 months							
Yes	17 (9,7)	92 (49,5)	84 (46,2)	18 (9,5)	45 (22,3)	256 (27,4)	<0.01
No	158 (90,3)	93 (50,0)	96 (52,8)	171 (90,5)	155 (76,7)	673 (72,1)	
Where are drugs prepared and injected							
At home by oneself	148 (83,6)	81 (43,6)	51 (27,9)	106 (55,8)	119 (57,8)	505 (53,6)	<0.05
At one's / one's friend's home together with other drug users	27 (15,3)	38 (20,4)	75 (71,0)	135 (71,1)	58 (28,2)	333 (35,4)	
In the streets, yards, and other public areas	26 (14,7)	167 (89,8)	73 (39,9)	78 (41,1)	123 (59,7)	467 (49,6)	

Table 3. Drug injecting practices of the respondents

The type of injecting drugs used that was most frequently identified in all countries was opiates (98%-100%), and 90.4% of the responses within this group indicated using heroin. An exception to this was India, where "pharmaceuticals" was the most frequently named drug (66.7% of all respondents indicated using it and 50.8% indicated using heroin). Liquid buprenorphine was indicated by 39% of the respondents in Indonesia and 21.9% of the respondents in India (0 in other countries). Use of liquid solutions presents the programmes with specific extra challenges related to potential contamination of the injectable liquids on their way from the source/production site to the end user, as well as potentially higher risk of sharing during use. Stimulant use turned out to be the highest in Malaysia (42.7% of the respondents); only 5.8% of drug users in Indonesia indicated using stimulants, 1 person in China, and none in Kenya and India. From 0% of the respondents in Kenya to 17.9% in Indonesia indicated using sedative drugs, such as Diazepam, Calmpose and others. In India, use of "cocktail", which is a mixture of two or more drugs (opiate/sedative/stimulant), prevails for injection. Avil is used by 31.7% of the respondents in India for mixing with pharmaceutical drugs when preparing the "cocktail". The high prevalence of pharmaceutical drug use in India calls for intensified collaboration with the pharmacy industry and substantive engagement of the pharmacists in the delivery of harm reduction services.

Table 4 presents a summary of types of drugs used by the respondents

Type of drug used	China	Kenya	India	Indonesia	Malaysia	Total	p-values
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
	n = 177	n = 186	n = 183	n = 190	n = 206	n = 942	
1. Opiates	175 (99.0)	186 (100)	182 (99.5)	189 (99.5)	202 (98.1)	934 (99.2)	
Heroin	175 (98.9)	186 (100)	93 (50.8)	188 (99.0)	202 (98.1)	844 (89.6)	
Liquid opium extract	0 (0)	0 (0)	5 (2.7)	2 (1.1)	4 (1.9)	11 (1.2)	
1.3 Pharmaceuticals (Spasmoproxyvon Proxyvon Tidigesic Luprigesic Fortwin Spasmidon)	0 (0)	0 (0)	122 (66.7)	6 (3.2)	0 (0.0)	128 (13.6)	>0.1
Buprenorphine	0 (0)	0 (0)	40 (21.9)	74 (39.0)	0 (0.0)	114 (12.1)	
Methadone	1 (0.6)	0 (0)	4 (2.2)	3 (1.6)	30 (14.6)	38 (4.0)	
Quidict	0 (0)	2 (1.1)	0 (0)	0 (0.0)	0 (0.0)	2 (0.2)	
2. Stimulants	1 (0.6)	0 (0.0)	0 (0.0)	11 (5.8)	33 (16.0)	100 (10.6)	
Amphetamine	0 (0.0)	0 (0.0)	0 (0.0)	7 (3.7)	8 (3.9)	15 (1.6)	
Methamphetamine powder (crystallized/liquid)	1 (0.6)	0 (0.0)	0 (0.0)	4 (2.1)	21 (10.2)	26 (2.8)	<0,01
"Ecstasy"	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (1.9)	4 (0.4)	
3.Sedatives	7 (3.4)	0 (0.0)	21 (11.5)	34 (17.9)	22 (10.7)	84 (8.9)	
Benzodiazapene (Domicum)	1 (0.6)	0 (0.0)	0 (0.0)	10 (5.3)	21 (10.2)	32 (3.4)	
Ketamine	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)	1 (0.5)	2 (0.2)	<0.05
Calmpose	6 (3.4)	0 (0.0)	21 (11.5)	0 (0.0)	0 (0.0)	27 (2.9)	
Diazepam	0 (0.0)	0 (0.0)	0 (0.0)	24 (12.6)	0 (0.0)	24 (2.6)	

Table 4. Types of drugs used by the respondents

6.4. Risky injecting behaviour

Sharing contaminated injecting equipment and substances is the major risk factor of acquiring HIV for PWID. This section describes the risky injecting practices of PWID in five countries by means of key internationally accepted indicators on sharing injecting equipment and assessing the prevalence of some other common practices.

18.05% of all respondents indicated using somebody else's syringe during the last injection (ranges from 5.3% in Malaysia to 7.3% in China to 9.0% in Indonesia, to 21.3% in India and gets as high as 48.4% in Kenya). 21.7% of all respondents indicated using a used syringe during the last 30 days. Out of those who shared a needle / syringe with somebody else, 44.6% have rarely or never disinfected it. Two main reasons for not using a clean syringe that were named were: 'no clean syringe / needle available' (67.1%) and 'I was using the needle/syringe after a person whom I trust' (14.2%). In Kenya, where the prevalence of high risk practice was the highest, 74.7% of the respondents who reported using previously used

syringes indicated unavailability of clean syringes / needles as the main reason for doing so. The alarming situation in Kenya is explained by the insufficient scale of of syringe exchange programmes and difficulties with procurement of syringes at the pharmacies (relatively high cost of syringes, and chemists being reluctant to sell syringing to people who use drugs). At the same time, increased availability of injecting equipment cannot be fully effective without a strong communication component, which addresses the prevailing misconceptions preventing people from adequate assessment of the level of risk and taking measures to manage it. Also availability of needle and syringe programmes in the area does not guarantee access to clean equipment at the time of injecting. The latter may be affected by other factors such as the regulations regarding the quantities of commodities distributed to clients, adequate location of needle and syringe outlets, as well as law enforcement practices discouraging possession of sterile injecting equipment. These factors should be explored during the in-depth situation assessment and taken into account while planning harm reduction intervention.

The prevalence of some other high-risk practices, such as participating in blood-flushing and sharing injecting equipment other than needles and syringes, is even higher. 81.2% of all respondents indicated having at least once in their lives participated in blood-flushing (drawing blood back into the syringe after injecting to collect the remaining drug and then re-injecting). 46% of all respondents indicated having shared injecting equipment (spoons, cups, cottons, filters, water, etc.) during the last 30 days (ranging from 17.5% in China to as high as 60% in Kenya). As is the case with reuse of syringes and needles, higher prevalence of risky injecting practices is characteristic of the sites with restricted accessibility of harm reduction services. The rate of injecting oneself using a preloaded syringe during the past 30 days was relatively low compared to other risky practices - 12.1% - with the highest values being in India and Indonesia (19.7% and 16.8% respectively), where the use of liquid pharmaceutical preparations and buprenorphine is highly prevalent, and the lowest – in Malaysia (6.3%). 65.5% of the respondents indicated having been ever injected by someone else, when they were not in control over the injection. The alarming situation with risky injecting practices can be a result of both, generally low coverage of PWID with harm reduction services in the countries, and ineffective behaviour change communication (BCC) interventions.

In the majority of cases, the first injection occurred with the help of another person (79.7%). In India usually a sexual partner / friend assisted the respondent to make his/her first injection by him/herself (78.7% of all respondents indicated this option); while in Indonesia, Malaysia and Kenya the first injection was usually made by a sexual partner / friend for the respondent (88.4% 54.4% and 53.8% respectively).

Table 5 summarizes the variations of risky injecting practices across countries.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Use of a clean needle and syringe during the last injection							
Yes	164 (92,7)	96 (51,6)	144 (78,7)	172 (90,5)	194 (94,2)	770 (81,7)	<0.01
No	13 (7,3)	90 (48,4)	39 (21,3)	17 (9,0)	11 (5,3)	170 (18,1)	
Reasons for using a needle and /or syringe previously used by somebody else (responded by those who used previously used syringes / needles at least once during the last 30 days)							

	n = 22	**n = 79**	**n = 47**	**n = 21**	**n = 35**	**n = 204**	
No clean needle / syringe was available	11 (50,0)	59 (74,7)	30 (63,8)	15 (71,4)	22 (62,9)	137 (67,2)	>0.1
No need to use a clean needle /syringe	0 (0,0)	3 (3,8)	3 (6,4)	1 (4,8)	2 (5,7)	9 (4,4)	
Using the needle /syringe after the person who is trusted	9 (40,9)	5 (6,3)	8 (17,0)	1 (4,8)	6 (17,1)	29 (14,2)	<0.05
Needles /syringes are expensive to buy	2 (9,1)	7 (8,9)	3 (6,4)	0 (0,0)	1 (2,9)	13 (6,4)	>0.1
Disinfection of a needle / syringe if it was shared - last 30 days							
Always	1 (4,6)	17 (21,5)	4 (8,5)	9 (47,6)	10 (28,6)	41 (20,1)	<0.05
In the majority of cases	1 (4,6)	6 (7,6)	7 (14,9)	1 (4,8)	3 (8,6)	18 (8,8)	
In half of cases	4 (18,2)	0 (0,0)	0 (0,0)	1 (4,8)	0 (0,0)	5 (2,5)	>0.1
Sometimes	7 (31,8)	10 (12,7)	9 (19,2)	2 (9,5)	3 (8,6)	31 (15,2)	<0.01
Rarely	6 (27,3)	16 (20,3)	16 (34,0)	0 (0,0)	6 (17,1)	44 (21,6)	
Never	3 (13,6)	24 (30,4)	11 (23,4)	7 (33,3)	2 (5,7)	47 (23,0)	
Participation in blood-flushing (after injecting, drawing blood into syringe to collect remaining drugs and then re-injecting) – ever							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Yes	136 (76.8)	162 (87.1)	98 (53.6)	190 (100.0)	184 (89.3)	770 (81.7)	<0,01
No	41 (23.2)	24 (12.9)	85 (46.5)	0 (0.0)	22 (10.7)	172 (18.3)	
Sharing injecting equipment (spoon, cup, cotton, filters, water etc. - last 30 days							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Always	9 (5.1)	39 (21.0)	6 (3.3)	44 (23.2)	23 (11.2)	121 (12.9)	<0.01
In the majority of cases	5 (2.8)	35 (18.8)	9 (4.9)	10 (5.3)	10 (4.9)	69 (7.3)	<0.05
In half of cases	0 (0.0)	3 (1.6)	2 (1.1)	11 (5.8)	6 (2.9)	22 (2.3)	>0.1
Sometimes	2 (1.1)	28 (15.1)	40 (21.9)	19 (10.0)	38 (18.5)	127 (13.5)	<0.05
Rarely	15 (8.5)	7 (3.8)	34 (18.6)	12 (6.3)	30 (14.6)	98 (10.4)	
Never	146 (82.5)	74 (39.8)	90 (49.2)	92 (48.4)	99 (48.1)	501 (53.2)	<0.01
Injecting oneself using a preloaded syringe - last 30 days							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Yes	16 (9.0)	17 (9.1)	36 (19.7)	32 (16.8)	13 (6.3)	114 (12.1)	>0.1
No	160 (90.4)	168 (90.3)	145 (79.2)	158 (83.2)	193 (93.7)	824 (87.5)	
Being injected by someone else (not in control over the injection) - ever							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Yes	63 (35.6)	125 (67.2)	136 (74.3)	121 (63.7)	172 (83.5)	617 (65.5)	<0.01
No	114 (64.4)	61 (32.8)	47 (25.7)	69 (36.3)	34 (16.5)	325 (34.5)	
Injecting for the first time							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Injected him/herself	68 (38.4)	38 (20.4)	11 (6.0)	9 (4.7)	42 (20.4)	168 (17.8)	<0.01
Injected him/herself with the help of sexual partner/ friend	55 (31.1)	42 (22.6)	144 (78.7)	13 (6.8)	52 (25.2)	306 (32.5)	
Sexual partner/ friend made the injection for him/her	54 (30.5)	100 (53.8)	11 (6.0)	168 (88.4)	112 (54.4)	445 (47.2)	

Table 5. Risky injecting practices reported by the respondents

6.5. Police and Law

National drug-related laws and regulations and interactions of PWID with the law enforcement system are an important factor affecting the functioning of the drug scene, prevalence of high-risk practices, and access and quality of HIV prevention/harm reduction services. The respondents of the study were asked whether they have been arrested for drug-related crimes – such as using, possessing, buying or selling drugs, and whether they have been kept in compulsory drug detention centres. 64% of the respondents were ever arrested for drug-related crimes ranging from 25.7% in India to as high as 94.2% in Malaysia. 34.6% of the respondents reported being ever kept in a compulsory drug detention centre (ranges from 10% in Indonesia to 69% in China). The high prevalence of compulsory detoxification in China presents a challenge to harm reduction development in the country. The centres, which commonly utilise forced labour, are considered to be an alternative to harm reduction interventions such as Methadone maintenance treatment. Further qualitative exploration of the interaction of PWID with the law enforcement agencies is required to determine locally specific policy and advocacy priorities. Table 6 summarizes the results of this set of questions.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Arrested for drug-related crimes – ever							
Yes	109 (61.6)	133 (71.5)	47 (25.7)	127 (66.8)	194 (94.2)	610 (64.8)	<0.01
No	68 (38.4)	53 (28.5)	136 (74.3)	63 (33.2)	12 (5.8)	332 (35.2)	
Arrested for drug-related crimes – during the last year							
Yes	14 (7.9)	67 (36.0)	24 (13.1)	44 (23.2)	121 (58.7)	270 (28.7)	<0.01
No	95 (53.7)	66 (35.5)	22 (12.0)	81 (42.6)	79 (38.4)	343 (36.4)	
Kept in compulsory drug detention centre – ever							
Yes	122 (68.9)	50 (26.9)	22 (12.0)	19 (10.0)	113 (54.9)	326 (34.6)	<0.01
No	55 (31.1)	135 (72.6)	161 (88.0)	170 (89.5)	93 (45.2)	614 (65.2)	
Kept in compulsory drug detention centre - during the last year							
Yes	10 (5.7)	10 (5.4)	16 (8.7)	6 (3.2)	24 (11.7)	66 (7.0)	>0.1
No	112 (63.3)	34 (18.3)	6 (3.3)	12 (6.3)	133 (64.6)	297 (31.5)	

Table 6. Interactions of PWID with the legal system

6.6. Sexual behaviour

Sexual transmission is the second most significant route of HIV transmission among PWID after injecting drug use, and the main mode of HIV spread from PWID to their sexual partners and, further to the broader segments of the population. Again, key internationally accepted indicators on risky sexual behaviour were assessed within the study sample and analysed.

The majority (53.1%) of all respondents who reported having sex in the last 12 months indicated not using a condom during the last sexual intercourse (35.4% in India, 44.5% in Indonesia, 57.7% in Kenya, 68.8% in China, and as many as 70.8% in Malaysia). Surprisingly, condom use did not differ much between sexual intercourses with permanent and casual sexual partners: 59.7% of the respondents did NOT use a condom with permanent partner, and 53.3% did NOT use a condom with a casual partner during the last intercourse with this type of partner. Condom use was somewhat higher with commercial sexual partners – 32.3% of the respondents indicated NOT using a condom during the last sex with such partner. 64% indicated NOT using a condom at least once during a sexual intercourse during the last 30 days (with any type of partner).

The reasons for not using a condom that were reported included: (i) 'using a condom lowers senses' (26.3% of the respondents named this reason), (ii) 'I did not consider it necessary (20.8%), (iii) 'no condom at the moment when it was needed' (12.9%), (iv) 'my partner insisted on not using a condom' (12.8%). Cross-country variations in the reasons for not using condoms were considerable: while in China the most frequently mentioned response was "I did not consider it necessary" (61.1% chose this response, most likely relates to the lowest rate of casual (25.0%) and commercial partners (4.8%) being reported in China compared with other countries), in India it was "I was under influence of drugs" (44.0%), and in Indonesia – "using a condom lowers senses" (40.2%).

Less than half of the respondents (45%) believe that their friends / neighbours are willing to use condoms during sexual intercourse. The highest levels of social acceptability of condoms was reported in Kenya (62%) and Indonesia (57%); the lowest – in China (19.8%).

Table 7 provides the details of risky sexual behaviour of PWID across countries.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Had sexual intercourse in the last 12 months	84 (47.5)	127 (68.3)	109 (59.6)	175 (92.1)	91 (44.2)	586 (62.2)	<0.01
Had sexual intercourse in the last 12 months with							
	n = 84	**n = 127**	**n = 109**	**n = 175**	**n = 91**	**n = 586**	
A permanent partner	68 (81.0)	82 (64.6)	60 (55.1)	143 (81.7)	38 (41.8)	391 (66.7)	<0.01
Casual (not commercial) sexual partner	21 (25.0)	35 (27.6)	25 (22.9)	57 (32.6)	36 (39.6)	174 (29.7)	
Commercial sexual partner	4 (4.8)	43 (33.9)	29 (26.6)	26 (14.9)	20 (22.0)	122 (20.8)	
Condom use during the last sexual intercourse (out of those who had sexual intercourse with this type of partner)							
A permanent partner	19 (27.9)	16 (18.6)	42 (70.0)	77 (54.6)	2 (5.7)	156 (40.0)	<0.01
Casual (not commercial) sexual partner	7 (33.3)	21 (56.8)	16 (64.0)	29 (50.0)	10 (25.6)	83 (46.1)	<0.05
Commercial sexual partner	2 (50%)	33 (73.3)	15 (53.6)	20 (71.4)	16 (72.7)	86 (67.7)	>0.1
Condom use during sexual intercourse with any type of partner (out of those who had sexual contacts during last month) – last month							

	n = 57	n = 102	n = 74	n = 149	n = 93	n = 475	
Always	14 (24.6)	38 (37.3)	36 (48.7)	61 (40.9)	16 (17.2)	165 (34.7)	
In the majority of cases	2 (3.5)	3 (2.9)	8 (10.8)	11 (7.4)	4 (4.3)	28 (5.9)	
In half of cases	0 (0.0)	1 (1.0)	4 (5.4)	0 (0.0)	2 (2.2)	7 (1.5)	
Sometimes	2 (3.5)	7 (6.9)	11 (14.9)	27 (18.1)	6 (6.5)	53 (11.2)	
Rarely	7 (12.3)	3 (2.9)	7 (9.5)	8 (5.4)	11 (11.8)	36 (7.6)	
Never	32 (56.1)	50 (49.0)	7 (9.5)	42 (28.2)	51 (54.8)	182 (38.3)	
Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	41(%)	**61 (%)**	**50 (%)**	**88 (%)**	**206 (%)**	**446 (%)**	
Reasons for not always using a condom during sexual intercourse							
No condom at the moment when it was needed	5 (9.3)	4 (4.8)	6 (12)	26 (21.3)	25 (12.5)	66 (12.9)	>0.1
Using a condom lowers senses	9 (16.7)	20 (23.8)	12 (24.0)	49 (40.2)	44 (22.0)	134 (26.3)	
Condoms are too expensive	0 (0.0)	2 (2.4)	0 (0.0)	0 (0.0)	7 (3.5)	9 (1.8)	
Partner insisted on not using a condom	3 (5.6)	9 (10.7)	3 (6.0)	21 (17.2)	29 (14.5)	65 (12.8)	
Was not considered necessary	33 (61.1)	22 (26.2)	6 (12.0)	5 (4.1)	40 (20.0)	106 (20.8)	<0.05
Did not think about it at all	3 (5.6)	2 (2.4)	0 (0.0)	6 (4.9)	26 (13.0)	37 (7.3)	>0.1
Was alcohol intoxicated	0 (0.0)	0 (0.0)	1 (2.0)	5 (4.1)	7 (3.5)	13 (2.6)	>0.1
Was under influence of drugs	0 (0.0)	2 (2.4)	22 (44.0)	5 (4.1)	19 (9.5)	48 (9.4)	<0.05
It was an act of sexual violence	0 (0.0)	1 (1.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)	>0.1
Condom use is socially acceptable (Are friends / neighbours willing to use condoms during sexual intercourse?)							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Yes	35 (19.8)	115 (61.8)	91 (49.7)	108 (56.8)	75 (36.4)	424 (45.0)	<0.05
Partially	8 (4.5)	9 (4.8)	16 (8.7)	57 (30.0)	12 (5.8)	102 (10.8)	
What do people mostly use condoms for?							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Preventing undesired pregnancy	26 (14.7)	101 (54.3)	82 (44.8)	142 (74.7)	38 (18.5)	389 (41.3)	<0.01
Prevention of HIV and STIs	46 (26.0)	127 (68.3)	88 (48.1)	124 (65.3)	78 (37.9)	463 (49.2)	
Do not use condoms	5 (2.8)	4 (2.2)	0 (0.0)	10 (5.3)	5 (2.4)	24 (2.6)	>0.1
No answer	100 (56.5)	0 (0.0)	13 (7.1)	0 (0.0)	85 (41.3)	198 (21.0)	<0.01

Table 7. Risky sexual behaviour of the respondents.

6.7. Knowledge about HIV/AIDS and safe injecting

Out of 13 questions on knowledge about HIV/AIDS and safe injecting 83.8% of all respondents provided correct answers to all the questions. The lowest rate of correct responses was to the question on overdose management - about 40% of the respondents falsely believe that 'If someone is suffering overdose they should be put in a tub of cold water' (the most likely reason for poor knowledge of

overdose management methods is that harm reduction programmes in the countries do not adequately address the issue of overdose). The other main misconceptions were that HIV cannot be transmitted from an HIV-positive mother to her child during pregnancy (26%) and that a mosquito's bite can infect with HIV (23%). The lowest level of knowledge about HIV/AIDS and safe injecting was reported in Kenya (77.2% of correct responses) and the highest was in Indonesia – 91.9%. Table 8 summarizes the respondents' knowledge about HIV/AIDS and safe injecting.

Statement	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
% of respondents who gave correct responses to the following statements:							
1. I can avoid HIV-infection having sex only with one faithful partner who is not infected.	78,53	95,16	98,90	92,11	88,35	90,65	<0.01
2. I can avoid HIV-infection using a condom correctly every time during the sexual intercourse	94,92	93,55	99,45	95,79	89,32	94,47	
3. A person looking healthy can be HIV-positive.	93,22	97,85	73,08	98,42	83,98	89,27	
4. A mosquito's bite can infect with HIV.	68,93	60,22	75,27	96,84	83,98	77,36	
5. A person can get HIV by drinking from a glass with an HIV-positive person.	89,83	77,42	80,77	95,79	87,38	86,29	
6. A person can get HIV by sharing a toilet, swimming pool, or sauna with an HIV-positive person.	90,40	79,57	82,42	99,47	91,75	88,84	
7. Using a shared needle even once can increase the risk of HIV transmission	97,18	98,92	92,86	98,95	90,78	95,64	
8. Not using another person's injecting equipment reduces the risk of HIV	98,87	95,16	71,43	97,89	84,95	89,59	
9. If someone is suffering overdose they should be put in a tub of cold water	70,62	36,02	60,99	79,47	55,34	60,36	
10. A person's lips turn blue when suffering from overdose	90,96	53,23	80,22	91,58	78,64	78,85	
11. HIV-infection can be transmitted from an HIV-positive mother to her child during pregnancy.	93,79	47,31	81,87	63,68	84,47	74,18	
12. HIV-infection can be transmitted from an HIV-	90,96	75,27	94,51	90,00	66,99	83,10	

positive mother to her child during delivery.							
13. HIV-infection can be transmitted from an HIV-positive mother to her child during breast-feeding.	83,62	93,55	79,67	94,74	55,83	80,98	

Table 8 Knowledge about HIV/AIDS and safe injecting

6.8. HIV testing

90.6% of the respondents know where to go to get an HIV test (China demonstrated the lowest rate across countries of only 73%). Only 55.6% of the respondents have a possibility to get an HIV test anonymously (the lowest average response was in Kenya – 26.3% and the highest was in Malaysia – 76.2%). 86% of the respondents have ever undergone HIV testing (the lowest average response was in India – 76% and the highest was in Kenya – 97%). 70% of all respondents had an HIV test during the last 12 months. 95% of those who had had an HIV test received their results. According to the respondents, 31.0% of those were HIV-positive (with the highest 57.0% in Indonesia (high share of HIV-positive PWID sampled in Indonesia could be caused by possible overrepresentation of older drug users, as described in the sample description and limitations sections), 28.2% - in Kenya, 21.8% in Malaysia and 15.1% in India (the data on this question for China were not completed properly)), 58.5% – HIV-negative, and the others were not willing to respond to this question[2]. Table 9 summarizes the responses of the interviewees in regard of the questions on HIV testing.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
% of respondents who:							
Know where to go for an HIV test	129 (72,9)	184 (98,9)	157 (85,8)	186 (97,9)	197 (95,63)	853 (90,55)	<0.01
Have a possibility to get HIV test anonymously	114 (73,0)	49 (26,3)	118 (64,5)	86 (45,3)	157 (76,2)	524 (55,6)	
Have ever undergone an HIV test	137 (77,4)	181 (97,3)	139 (76,0)	172 (90,5)	189 (91,8)	818 (86,8)	
Reasons for never having had an HIV test:							
	n = 30	**n = 5**	**n = 44**	**n = 17**	**n = 17**	**n = 113**	
don't know where to go	8 (26,7)	0 (0,0)	7 (15,9)	1 (5,9)	6 (35,3)	22 (19,5)	<0.05
no HIV testing point/station/centre nearby	0 (0,0)	0 (0,0)	15 (34,1)	0 (0,0)	2 (11,8)	17 (15,0)	<0.05
don't know where the HIV testing point /station/centre is located	0 (0,0)	0 (0,0)	1 (2,3)	1 (5,9)	6 (35,3)	8 (7,1)	>0.1

[2] It should be noted that self-reported HIV status of the respondents presented here cannot be interpreted as HIV prevalence rates among the study sample.

no money for an HIV test	1 (3,3)	0 (0,0)	3 (6,8)	0 (0,0)	5 (29,4)	9 (8,0)	>0.1
Working schedule of such HIV testing point /station/centre is not convenient	2 (6,7)	0 (0,0)	4 (9,1)	0 (0,0)	6 (35,3)	12 (10,6)	>0.1
location of the HIV testing point /station/centre is not convenient	0 (0,0)	0 (0,0)	4 (9,1)	0 (0,0)	4 (23,5)	8 (7,1)	>0.1
staff's attitudes are problematic	0 (0,0)	0 (0,0)	0 (0,0)	0 (0,0)	0 (0,0)	0 (0,0)	>0.1
Fear of HIV status or drug use being made public	0 (0,0)	1 (20,0)	4 (9,1)	6 (35,3)	4 (23,5)	15 (13,3)	<0.05
Fear of HIV status or drug use being made known to the Government	0 (0,0)	1 (20,0)	5 (11,4)	0 (0,0)	1 (5,9)	7 (6,2)	>0.1
% of respondents who:							
	n = 177	**n = 186**	**n = 183**	**n = 190**	**n = 206**	**n = 942**	
Had an HIV test during the last 12 months	113 (82,5)	149 (82,3)	117 (84,2)	56 (32,6)	141 (74,6)	576 (70,4)	<0.01
Got the results in the last test	125 (91,2)	179 (99,0)	124 (89,2)	169 (98,3)	178 (94,2)	775 (94,7)	
Positive HIV-status (self-reported)		51 (28,2)	21 (15,1)	98 (57,0)	41 (21,8)	211 (31,0)	
Registered with ART provision centre		34 (66,7)	19 (86,4)	74 (75,5)	3 (7,3)	130 (61,3)	

Table 9. HIV testing

The spread sheet above illustrates limited integration of HIV prevention/harm reduction programming with HIV testing and treatment services, particularly striking in Malaysia, where only 7% of those self-reported to be HIV positive are registered with ART facilities (average for all countries is 61%). Access to HIV testing is limited in China and India, which calls for the development of targeted programmes designed to improve access of PWID to voluntary counselling and testing with facilitated further progression to HIV care and treatment if required.

6.9. Services received by PWID and satisfaction with services

This section was aimed at determining the range of HIV prevention services that were received by the respondents during the last 12 months, the regularity of receiving those services, their quality, and whether the services received addressed the clients' needs.

Overall, 69.4% of the respondents reported receiving HIV prevention services from the field-level NGO at which the interview was conducted during the last 12 months. The highest regularity of access to HIV prevention services was reported in China and Malaysia*:* about 90% of the respondents in these countries were receiving services once a week or more frequently. The lowest regularity was in Kenya: less than 7% of the respondents indicated using services once a week or more often. In India and Indonesia regularity of access to services was rather low: the majority of respondents came for services less than once a week. Nevertheless, as will be described later on, no significant association between regularity of service use

and safe injecting behaviour of PWID was identified in this study. Figure 2 shows the variations in the frequency of service use across countries.

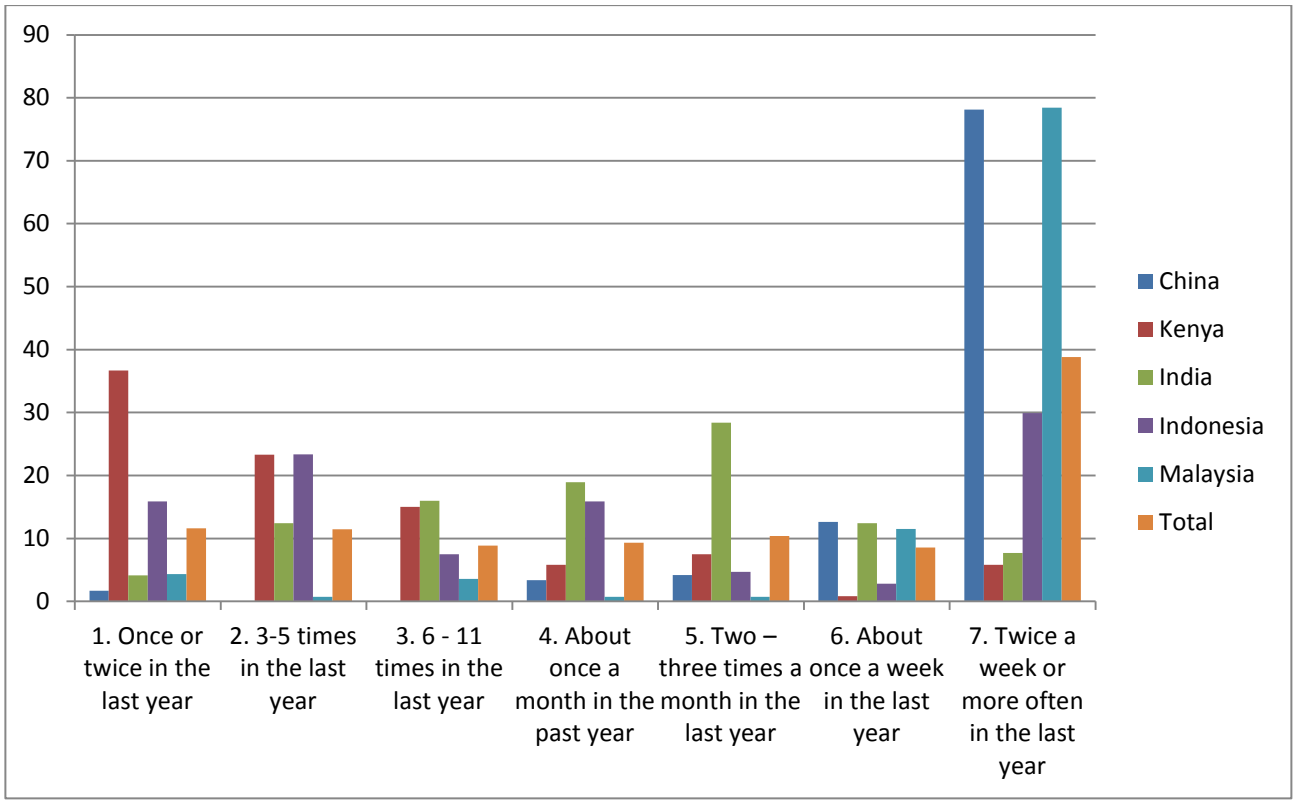


Fig. 2 Frequency of HIV-prevention service use during the last 12 months across countries

The service that was received the most was 'targeted information, education and communication about safe sex and safer injecting' – 53.5% of all the respondents indicated having received this service during the past 12 months. 51% reported receipt of needles and syringes with considerable variations across countries ranging from as low as 18% in Kenya to 91% in India. Kenya also demonstrated the lowest utilisation of the following services: 'access to prevention and treatment of sexually transmitted infections' (11.9% compared to 33.8% within the total sample), 'basic health services (including vein care, and overdose prevention and management)' (27.4% compared to 39.3%), 'home based care and support for HIV positive drug users' (13.4% compared to 27.6%). Voluntary counselling and testing (VCT) was received during the past 12 months by 77% of all respondents in India, and only by 34% in Indonesia (an average of 47.9%[3] across countries). The most needed services were 'economic strengthening activities' (88.0% were in need of this service, ranging from 80, 5% in India to 99.1% in Indonesia); basic health services (87.0%, ranging from 72.3% in China to 99.1% in Indonesia) and 'needles and syringes' (86.1%, ranging from 63, 9% in China to 98, 8% in India).

3 The possible bias within the Indonesian sample (please refer to the sample description section) might have impacted the average value of VCT coverage across countries (the likelihood of the sample in Indonesia overrepresenting long standing clients is likely to mean that most respondents knew their HIV status for a while by the time of the study and did not undergo VCT during the past year).

Table 10 provides details on the proportion of respondents from each country who received a particular service, and the proportion of those who need a particular service, out of all the respondents who reported having received any services during the last 12 months.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**	**p values**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	
	n = 119	**n = 113**	**n = 169**	**n = 107**	**n = 140**	**n = 648**	
percentage of respondents who received the following services during the last 12 months (%); percentage of respondents who needed this service (%)							
1. Needles and syringes	38,4 63,9	17,7 73,5	90,7 98,8	39,0 87,9	67,5 98,6	51,0 86,1	 <0.05
2. Access / adherence to opioid substitution treatment or other drug dependence treatment	54,8 95,0	19,9 94,7	42,6 87,0	22,1 75,7	14,1 62,9%	30,0 82,7	<0.01
3. HIV testing and counselling	53,7 84,0	40,3 64,6	77,1 87,0	34,2 90,7	36,4 95,7	47,9 85,0	<0.01
4. Access / adherence to antiretroviral therapy	9,0 56,3	11,8 30,6	25,1 49,7	27,4 72,9	6,3 44,3	15,8 50,3	<0.05 <0.01
5. Access to prevention and treatment of sexually transmitted infections	31,1 58,0	10,2 36,3	66,1 84,0	33,2 91,6	29,1 80,7	33,8 71,5	<0.01
6. Condoms	32,2 37,0	24,2 59,3	76,0 88,2	38,4 92,5	28,6 61,4	39,6 68,7	<0.01
7. Targeted information, education and communication about safe sex and safe injecting	48,0 65,5	46,8 80,7	71,0 88,8	51,6 96,3	50,5 88,6	53,5 84,3	<0.05
8. Access to diagnosis, treatment and vaccination of viral hepatitis	36,7 81,5	13,4 63,2	29,5 58,0	27,4 99,1	20,4 88,6	25,3 76,6	<0.05 <0.01
9. Access to prevention, diagnosis and treatment of TB	20,9 67,2	16,7 63,7	47,0 62,1	24,7 96,3	16,0 81,4	24,8 73,1	<0.05 <0.01
10. Shelter, shower, food, other services that satisfy basic needs	12,4 49,6	17,2 76,1	14,8 76,9	34,2 89,7	62,1 96,4	29,1 78,1	<0.01
11. Basic health services (including vein care, and overdose prevention and management)	27,1 72,3	27,4 78,8	64,5 87,6	31,1 99,1	45,6 96,4	39,3 87,0	<0.01
12. Sexual and reproductive health services (including PMTCT, family planning, access to safe abortion and maternal health services)	24,3 48,7	15,1 21,2	16,9 58,6	18,4 63,6	17,0 58,6	18,3 51,1	<0.05 <0.01
13. Home based care and support for HIV positive drug users	17,0 49,6	13,4 33,3	26,2 69,8	35,8 87,9	43,2 87,1	27,6 66,6	<0.01
14. Family support (for you and your relatives)	23,7 65,5	13,4 78,8	10,9 81,0	33,2 94,4	49,5 91,4	26,8 82,2	<0.01
15. Access to justice/legal	19,8	17,7	6,0	23,2	40,8	22,0	

services	71,4	78,8	71,4	98,1	91,4	81,5	<0.05
16. Economic strengthening activities	11,3 82,4	17,7 89,4	7,1 80,5	30,5 99,1	20,9 92,1	17,7 88,0	<0.05 <0.01

Table 10. Services received by the respondents and their need in services

The ratio of those who received the service to those who need it across all services was the lowest in Kenya – 33%, and the highest in Indonesia – 56%, which is still very low. There was a considerable misbalance between the need in service and its receipt. It was the highest for such services as "access / adherence to antiretroviral therapy", "sexual and reproductive health services", "economic strengthening activities" and "family support" – only 23 – 27% of those who needed these services received them. Only 29% of those in need accessed the essential harm reduction commodities - "needles and syringes" in Kenya. Access to opioid substitution treatment is again highly needed in Kenya – only 32.7% of those in need of OST receive it.

These data highlight the needs in the development or introduction of particular services in each location. Thus Kenya and China experience an acute lack of needle and syringe programmes. Methadone programmes only partially meet the demand across all countries with the situation being particularly challenging in Malaysia. Given the general availability of OST in Malaysia the low utilisation vs. need ratio indicates poor quality of the service in the country and lack of linkages between the civil society based harm reduction services and clinic based delivery of Methadone maintenance treatment. This is also the case with access to other clinical services, and, in particular, antiretroviral treatment, which again highlights an acute need in the integration of prevention and care services for injecting drug users.

Across all services, the highest level of satisfaction was reported in China (integral index of 94 points out of 100) and Indonesia (89), and the lowest – in Kenya (50). Table 11 provides details on the indexes of satisfaction with services received, assigned to each type of service by the respondents.

Table 11. Satisfaction with services received.

Characteristic	**China**	**Kenya**	**India**	**Indonesia**	**Malaysia**	**Total**
Integral index of satisfaction with services (ranges from 0 to 100), reported by respondents who received a particular service during the previous 12 months						
1. Needles and syringes	97.1	43.4	80.7	90.1	78.7	81.3
2. Access / adherence to opioid substitution treatment or other drug dependence treatment	94,9	42,3	79,5	84,1	67,8	79,4
3. HIV testing and counselling	94,4	74,7	81,6	91,3	70,7	82,7
4. Access / adherence to antiretroviral therapy	93,8	28,8	60,9	89,1	61,5	69,6
5. Access to prevention and treatment of sexually transmitted infections	93,3	15,8	74,1	86,8	68,9	75,5
6. Condoms	93,0	53,3	81,5	87,2	68,4	78,9
7. Targeted information, education and communication about	92,6	78,2	75,4	92,9	69,2	80,9

safe sex and safe injecting						
8. Access to diagnosis, treatment and vaccination of viral hepatitis	91,8	34,7	66,1	94,2	68,3	76,3
9. Access to prevention, diagnosis and treatment of TB	91,0	35,5	75,2	89,4	70,7	74,6
10. Shelter, shower, food, other services that satisfy basic needs	93,9	39,6	67,9	88,7	75,8	75,3
11. Basic health services (including vein care, and overdose prevention and management)	91,0 35,6	52,9 42,7	73,5 62,8	88,1 49,2	70,9 43,9	74,6 46,9
12. Sexual and reproductive health services (including PMTCT, family planning, access to safe abortion and maternal health services)	91,5	34,5	64,5	82,9	66,7	70,5
13. Home based care and support for HIV positive drug users	96,7	41,3	70,8	92,2	73,0	77,3
14. Family support (for you and your relatives)	96,8	28,0	70,0	85,2	70,3	74,2
15. Access to justice/legal services	91,4	45,5	63,6	84,9	64,7	70,4
16. Economic strengthening activities	90,0	41,4	64,1	88,5	66,7	71,9

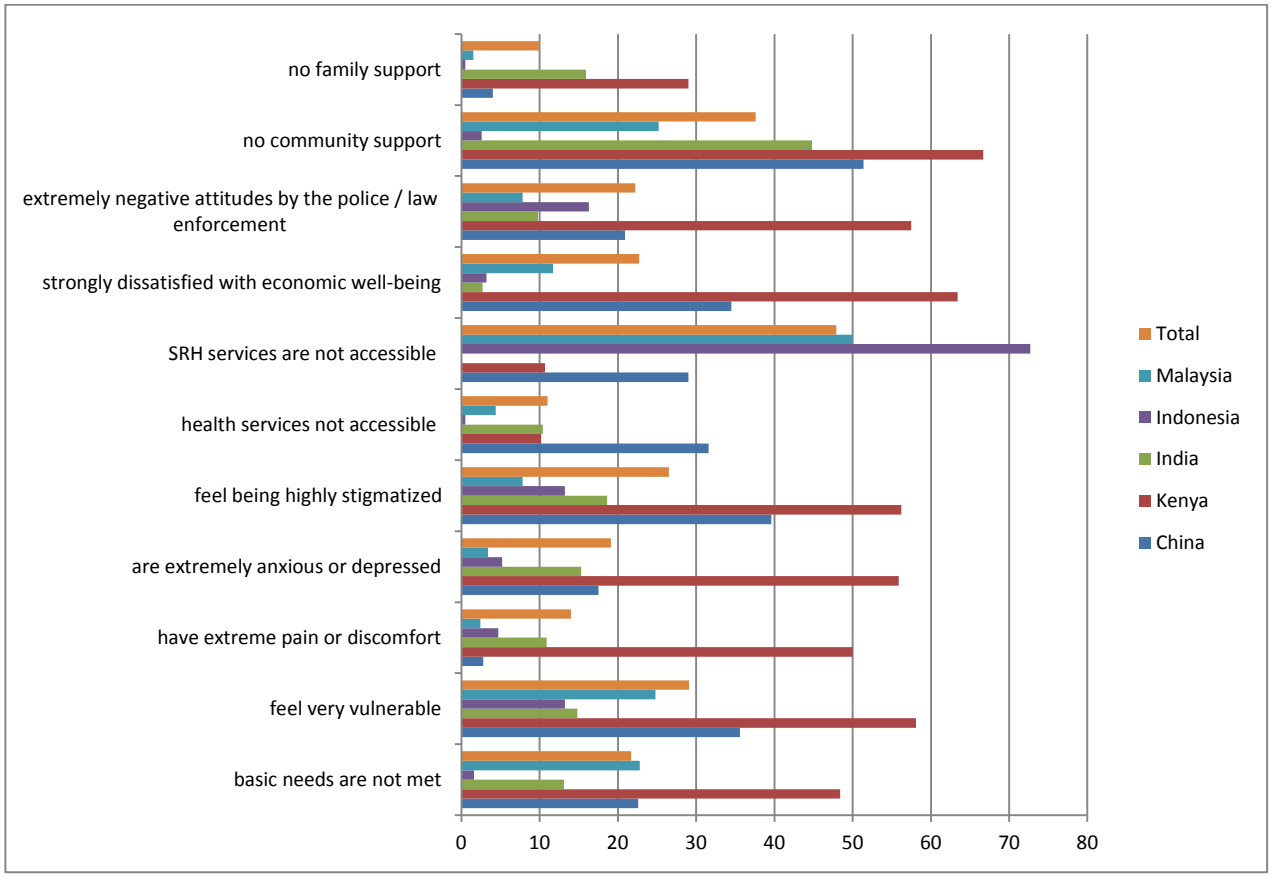
Key factors that influence receipt of services identified by the respondents were the following: confidentiality – 'information about my drug use and HIV status will be anonymous and won't be given to Government authorities' (76% of respondents indicated this); cost of services / services being free (74%); staff friendliness, professionalism (70%); accessibility – 'close to my home, and open when I need it' (69%); range / menu of services being provided (68%).

6.10. Well-being and quality of life

The last group of questions dealt with assessing the level of well-being and quality of life of the respondents.

In Kenya only 19% of respondents indicated that their basic needs are fully met (lowest level) (compared to 52% in Malaysia and 43% in Indonesia), and 48% all the respondents in Kenya stated that their basic needs are NOT met. 32% of the respondents constantly feel safe and secure with the highest levels in Indonesia and Malaysia, 40% feel somewhat safe and secure, and 29% feel themselves very vulnerable (in Kenya this indicator goes up to 58%). 67% of respondents in China and 64% in Malaysia do not feel pain / discomfort (compared to 42% within the total sample), while 50% of respondents in Kenya feel extreme pain / discomfort (compared to 14% within the total sample). 56% of the respondents in Kenya feel extremely anxious and depressed (compared to 19% within the total sample).

70% of the respondents feel a certain degree of stigmatization, and 26% feel being highly stigmatized. In Kenya this indicator is 56%, in China - 40%, which indicates a high level of stigmatization in these countries. Health services are fully accessible for almost 50% of the respondents (ranges from 85% in Malaysia and 56% in Kenya to only 9% in India). In terms of experiencing negative attitudes taken by police and law enforcement agencies, the worst situation is in Kenya - 85% of the respondents experienced extremely negative attitudes, and the best situation is in China - 50% do not experience negative attitudes at all. In general, for all dimensions analyzed, except for medical and SRH services, respondents from Kenya demonstrated a significantly lower level of well-being and quality of life (fig. 3). Table 12 provides a summary of the assessment of the respondents' well-being and quality of life based on a number of parameters.



Characteristic	China	Kenya	India	Indonesia	Malaysia	Total	p values
	n = 177	n = 186	n = 183	n = 190	n = 206	n = 177	
percentage of respondents who reported that							
Their basic needs are not met	22,6	48.4	13.1	1.6	22.8	21.7	
They feel very vulnerable	35.6	58.1	14.8	13.2	24.8	29.1	
They have extreme pain or discomfort	2.8	50.0	10.9	4.7	2.4	14.0	
They are extremely anxious or depressed	17.5	55.9	15.3	5.2	3.4	19.1	<0.01
They feel being highly stigmatized	39.6	56.2	18.6	13.2	7.8	26.5	
They feel that health services are not accessible	31.6	10.2	10.4	0.5	4.4	11.0	
SRH services are not accessible	29.0	10.7	ND	72.7	50.0	47.9	
Are strongly dissatisfied with economic well-being	34.5	63.4	2.7	3.2	11.7	22.7	<0.05
Experience extremely negative attitudes / actions taken by the police and law enforcement agencies	20.9	57.5	9.8	16.3	7.8	22.2	
Do not feel community support	51.4	66.7	44.8	2.6	25.2	37.6	<0.01
Feel that their family does not want to have any relations with them	4.0	29.0	15.9	0.5	1.5	10.0	<0.05
Integral index of well-being and quality of life (0 to 100 points)	67	56	64	79	77	XX	-

Fig 3. Proportion of the respondents who indicated low levels of well-being and quality of life for a number of parameters by countries

Table 12. Well-being and quality of life of the respondents

6.11. Factors associated with usage of clean needles and syringes

The descriptive data provided above depict a number of characteristics of PWID and drug use behaviours in the countries of interest that are important for understanding the context of CAHR project functioning, as well as for the development and implementation of specific HIV prevention interventions within CAHR and beyond. These data will also constitute the baseline values for further analysis after end-of–project evaluation is carried out. Nevertheless, the study also aimed to see if any linkages exist between the variables that were collected.

One of the key outcomes of interest that harm reduction projects aim to impact is risky injecting behaviour. 'HIV incidence' would have been a better indicator that measures the ultimate impact of HIV prevention projects than 'usage of clean needles/syringes', however: (i) only self-reported data on HIV status were collected within the study; and (ii) even if HIV testing was carried out, this would only provide HIV prevalence data among the study sample, with no indication as to when did the seroconversion happen. A number of variables that were collected within the study were tested for their association with the outcome of interest through univariate analysis using a logistic regression: age; gender; having received HIV prevention services during the last 12 months; regularity of service use; satisfaction with services; receiving particular services (please refer to table 10 for the list of services); level of knowledge on HIV (questions 1, 2, 3, 5, and 6 from table 8); HIV status; country. The following variables turned out to be significant at $p<0.05$ and were included into the multivariate logistic regression: age, HIV status, HIV-related knowledge, country, and receiving syringes / needles during the last 12 months.

The following results were obtained in the analysis: variables "country", "receiving needles/syringes" and "HIV-related knowledge" had significant association with the outcome of interest: living in Kenya and India considerably reduced the chances of a PWID using a clean needle/syringe during the last injection (a person living in India had 3.9 times less chances of using a clean syringe than a person living in Malaysia, and a person living in Kenya – 11 times less chances). Further, ***those who reported receiving needles/syringes had 1.5 times more chances of using a clean needle/syringe than those who did not***. Receiving other HIV prevention and related services did not turn out to have a significant association with the outcome of interest. An unpredictable relationship was encountered between "HIV-related knowledge" and "using clean syringe/needle": the chances of a person who correctly responded to 5 questions on HIV to use clean syringe/needle were less than of a person who did not respond correctly. More investigation in this area is needed to provide possible interpretation of this outcome. (Annex 2 provides the logistic regression results).

The five independent variables that were included in the logistic regression allow classifying correctly only 26% of cases of using a previously used needle/syringe (and 96% of cases of using a clean syringe/needle), and additional analysis has to be done to come up with a set of factors that would explain the outcome of interest to a higher degree. The strong influence of the 'country' variable suggests that possibly those are country-specific contextual variables that were not part of the data collected within this study, such as, criminalization of drug use, presence / scope of national/regional HIV prevention programs, certain cultural norms and barriers, etc. Thus, although several important factors that are associated with risky injecting practices were identified among the variables included in the survey, future analysis calls for additional improvement of the model by means of including other parameters.

7. Discussion

This report explores a number of important characteristics of PWID in relation to their vulnerability to HIV/AIDS in the five countries, such as: drug injecting practices, risky injecting and sexual behaviour, interactions of PWID with the law enforcement system, knowledge of HIV and safer injecting, access to and satisfaction with services, and quality of life of PWID. The average PWID analysed in this study was male, 35 years of age, had primary or high school education, injected drugs at least 4 – 6 times a week,

made 2 and more injections on an average day of injecting, did not receive opioid substitution treatment, injected mostly heroin, used a clean syringe during the last injection, did not use a condom during the last sexual intercourse, had an HIV test during the last 12 months, was arrested for drug-related crime during lifetime, received free needles or syringes and targeted information, education and communication about safe sex and safe injecting during the last year.

At the same time, considerable cross-country variations indicate the importance of analyzing country-specific environment in which PWID live and HIV prevention services are provided. It is expected that additional qualitative data will be collected within countries through operational research[4] in 2013, and will assist in interpretation of the end-of-project results and their comparison to the baseline data.

In Kenya, drug use and syringe possession without a legitimate purpose are illegal and can lead to criminal prosecution and imprisonment. Until recently, the state response to drug use was limited to services aimed at reducing the demand for drugs through drug prevention campaigns, and drug free rehabilitation centres for drug-dependant citizens, with next to no effort aimed at limiting the spread of HIV in this population [2]. No government supported needle/syringe exchange points exist, and only a few NGOs understand the need, tested some of the elements, and would like to further engage in the delivery of these services [6]. The results of the strategy taken by the Kenyan government in regard of PWID appear to be well illustrated by the study findings. Alarmingly high levels of risky injecting behaviour revealed within the study (48.4% respondents indicated sharing syringes/needles during the last injection, 60% indicated having shared ever injecting equipment and 87% - having participated in blood-flushing) mirror the findings of other authors that indicate that sharing of injecting equipment is common in a number of settings in Kenya [7]. 74.7% of the respondents who reported using previously used syringes indicated unavailability of clean syringes / needles as the main reason for doing so. In general, the study identifies a clear association between receiving needle and syringes and safe injecting practices: those who reported receiving needles/syringes had 1.5 times more chances of using a clean needle/syringe than those who did not.

Apart from reporting higher levels of risky injecting behaviour, PWID in Kenya indicated experiencing opiates overdoses more frequently than the respondents from other countries (50% reported overdose cases during the last 12 months). Further, the overall living conditions of PWID in Kenya were much worse than those in other countries: 48% of the study participants' basic needs were not met, 58% felt very vulnerable, 56% feel being highly stigmatized, and 63% are strongly dissatisfied with their economic well-being. 71.5% of the respondents have been ever arrested for drug-related crimes.

Although HIV-related behaviour of PWID and quality of life parameters are somewhat better in India, Indonesia, Malaysia and China, there are still certain areas that require urgent attention. In India the rate of sharing injecting equipment during the last injection was again quite high (21.3%) with lack of availability of syringe / needle being indicated as the main reason (indicated by 63.8%). The regularity with which PWID access harm reduction services in India is also quite low – only about 20% of the respondents indicated receiving services once a week or more frequently, thus indicating the need to increase access of PWID to quality HIV prevention.

[4] The following preliminary subjects for operational research were identified: Cost effectiveness of OST: Cost to Client, Coverage and Service Quality (China); Harm Reduction Service Quality: Beneficiary Perspective (Indonesia); Complexity of PWID Vulnerability to HIV Acquisition (India); Factors Affecting Condom Use among PWID and Their Sexual Partners (Malaysia); Essential Requirements to Needles and other Prevention Commodities Utilised in Harm Reduction Programmes (Kenya)

In Malaysia, although the responses were quite favourable for a number of indicators (risky injecting behaviour, quality of life), 70.8% of the respondents did not use condoms during the last sexual intercourse, which is most likely determined by cultural norms. Also, the majority of the respondents were arrested for drug-related crimes during the last year (58.7%), which is a reflection of drug policies in the country that criminalize drug use, possession, trafficking and production, and, thus, undermine the effectiveness of harm reduction programmes. An effective HIV prevention strategy for Malaysia would include targeted prevention of sexual transmission of HIV and decriminalization of drug use.

In China, PWID face detention for possession of needles, forced labour rehabilitation and high level of discrimination; harm reduction services are mainly provided by state-owned organizations with very limited involvement of CSOs. As a result, although more than 70% of respondents indicated receiving ST, access to needles and syringes is very limited (only 38% of respondents indicated receiving them during the last 12 months), and the majority of the respondents were kept in compulsory drug detention centres at some point during their life time (68.9%).

In Indonesia, again, insufficient access to needles and syringes was reported (39% indicated receiving them during the last 12 months), and although the integral index of well-being and quality of life was the highest compared to other countries (79 points out of a maximum of 100), PWID continue to suffer from discrimination and prosecution by law enforcement officers. Again, scale up of harm reduction services is needed, as well as applying public health approach to drug users into practice.

Country-specific reports on the results of this study provide specific programmatic recommendations that will allow fine-tuning service delivery within the CAHR project to achieve better results. At the same time, it should be taken into account that the results outlined here are based on the responses obtained from a sample of PWID who have been receiving HIV prevention services for a while, or those who have turned up for services for the first time, while a significant proportion of PWID remains hidden and does not come into contact with outreach workers, and can quite likely be more vulnerable to HIV than the ones sampled. CAHR prioritises introduction of innovative and strategic outreach strategies (such as those associated with Peer Driven Interventions) to identify the more marginalised segments of PWID population and engage them in tailored harm reduction programmes.

The obtained results clearly indicate the need for active actions to be taken in order to decriminalize drug use in countries, expand HIV prevention programs for PWID, and accelerate the provision of services that both directly decrease the risk of HIV transmission (such as needles and syringes), as well as improve the living conditions of PWID (e.g. address their basic needs). It is expected that CAHR project will be able to play an important role in this task; however implementation of nation-wide government-led HIV-prevention strategies is required to promote the rights of drug users and ensure easy access to effective HIV-prevention services.

Location specific in-depth participatory situation assessments are required to clarify local aspects of drug scene functioning, injecting practices, networking patterns and other significant aspects that may influence the level of risk. Examples of research questions to be answered through such exercises include more detailed exploration of injection frequency in order to determine the most appropriate supply of prevention commodities; the drug use settings prevalent in a given site in order to determine the most adequate approaches to outreach work and service delivery models; the specific risks associated with the use, preparation, and transportation of specific types of substances such as liquid pharmaceutical preparations; factors affecting reuse and sharing other than availability of needle and syringe

programmes (including e.g. the regulations regarding the quantities of commodities distributed to clients, adequate location of needle and syringe outlets, as well as law enforcement practices discouraging possession of sterile injecting equipment). Systematic monitoring of the local drug scene and other relevant parameters of the environment should complement the formative local assessments. Site specific assessment are also valuable for defining harm reduction advocacy agendas as they allow for clarifying the local prevalence of various types of drug related crimes and specifying advocacy tasks aimed at specific operational policies and practices.

8. Limitations

There are a number of limitations to this study. First of all, non-representative sampling methodology was used, and the results of the study cannot be generalized to the PWID population in the study locations. Even though the majority of respondents were selected randomly from the list of clients of field-level NGOs (56%), another portion that represents 'new' clients was sampled conveniently (44%). In both cases, the respondents represent the sub-group of PWID who have been for a while or have just started accessing services, while there is a considerable sub-group of PWID who are 'hidden', and thus not in contact with any HIV prevention services. Taking into account that the 'hidden' sub-group of PWID might be even more vulnerable to HIV and in need of services, this constitutes a limitation that should be taken into account when using the results of this study for service planning and management.

Second, while the overall sample size for five countries is for the most part sufficient for analysis of key variables obtained within the study, the sample sizes for each country are in most cases inadequate to carry out robust country-specific analysis based on certain characteristics.

Further, there were some deviations from the study methodology at the country level. For example, in Malaysia only convenience sampling was used for both 'old' and 'new' clients, thus, the results of the study are not generalizable in Malaysia even across project clients [8]. In Indonesia, there is a non-confirmed bias of overrepresentation of older users of heroin who have been in a long term contact with a variety of services, with a significantly larger proportion of HIV positive participants in the sample compared to other countries.

9. Programmatic Recommendations

1. The study shows that, most likely, males are overrepresented across harm reduction programmes in comparison to male-female distribution within the PWID population in countries Special attention in CAHR project should be paid to development of gender sensitive approach in harm reduction and launching specially designed interventions increasing coverage of female drug users.

2. Behaviour change communication interventions in the countries should include an overdose prevention and management component. It is recommended to explore the issue of overdose in the countries better in order to understand if PWID know the signs of overdose, frequency of

overdose cases, readiness of service providers (NGOs, clinics, etc.) to provide assistance, availability of Naloxone, etc.

Possible project activities can include: development of targeted informational materials about overdose prevention and management; field level staff (outreach workers, peer consultants, etc.) training on overdose prevention and management; conducting individual and group counselling for clients with the use of video and demonstrations; peer education programmes covering the aspects of overdose prevention and management; Naloxone distribution (in case of its availability in the countries) and advocating for its availability if it is inaccessible.

3. The alarming situation in Kenya with the highest proportion of people newly initiated in drug use, lowest access to needles and syringes, OST and other services, highest report of overdose cases and highest risky behaviour requires a quick scale up of needle and syringe exchange programme and introduction of other harm reduction services. Operational studies are needed to explore preferable commodities to be included into harm reduction package and the best approach to service provision.

   As majority of respondents in Kenya indicated that drug use takes place "in the streets, yards, and other public areas", project activities should address the issue of personal hygiene during injection (counselling, provision of water and soap to rinse the places of injection and disinfectants, etc.).

   Behaviour change communication component needs to take into account the low level of education of people who use drugs in Kenya (information materials and face-to-face communication need to be easy to understand and appropriate for the clients).

   As Kenya only starts provision of harm reduction services, comprehensive training is required for service providers. Possible topics can include principles of harm reduction, development and management of harm reduction programme, outreach work among people who use drugs, behaviour change communication in harm reduction, overdose prevention and management, HIV/STI testing and treatment services for people who use drugs, monitoring and evaluation for harm reduction programmes, etc.

4. Access to opioid substitution therapy should be expanded across all the countries with some variations in efforts. OST is hardly available for people who use drugs in Kenya. It is recommended to include advocacy activities as a part of CAHR programme in Kenya as a first step towards making opioid substitution therapy available to people who use drugs. It would be advisable to study the attitudes of people who use drugs and stakeholders towards opioid substitution therapy and their views on the best approach to making OST more accessible and efficiently expanding it.

   In other countries, especially in China where OST is available on a wider scale, a special attention should be paid to engaging new client into substation therapy. Peer driven intervention which includes an educational module about substitution therapy can be a good tool to expand the coverage.

The quality of substitution therapy programmes needs further exploration as well. Operational studies may help to understand the obstacles for entering the programme, are they low-threshold or now, integration with other harm reduction services, how effective the collaboration between NGOs and agencies providing OST is, etc. For example, improving linkages between the civil society based harm reduction services and clinic based delivery of Methadone maintenance treatment in Malaysia would lead to higher OST coverage levels.

5. Based on variations in the types of drugs used by respondents, with "pharmaceuticals" as the most frequently named drug in India, widely used liquid buprenorphine in Indonesia and stimulant use in Malaysia, there is a need to tailor the programmes in these three countries. It would be recommended to study specific risk practices and harms associated with the use of specific types of drugs in India, Indonesia and Malaysia, needs of people using these drugs and adjust the programmes based on the results of the studies. These can be specific educational components and information materials about the risks and harms of "other frequently used types of drugs" than heroin, provision of commodities to address the risk factors, individual and group counselling.

6. To address the risky behaviour of those who share injecting equipment, but never disinfect one and practice blood-filling, the following activities can be included into the programme on a field level: counselling of peer educators and outreach workers on the risks of sharing and how to avoid them; procurement of disinfectants and injecting equipment; information and education materials covering the aspects of sharing risks and disinfection practices.

   It is suggested to determine whether the number of syringes distributed as a part of the project is sufficient for clients and are there any obstacles with purchasing syringes over the counter. This will help to identify whether there is a need to increase the number of commodities procured as part of the programme.

   Partner organisations should look for the opportunities for increasing the number of sights where people who use drugs can access clean syringes and apply different outreach approaches.

7. CAHR programme needs to introduce activities increasing access not only to clean needles and syringes, but to other services as well, such as basic health services, access to prevention and treatment of sexually transmitted infection and availability of anonymous testing for HIV and STIs. It is recommended to study the obstacles that are in place towards accessing these services in the countries and develop interventions increasing the access. These can be introduction of rapid testing for HIV and STIs (including mobile testing), building collaboration with state medical facilities to improve access to treatment (including ARV for those who need it), etc.

10. Conclusions

The study was aimed at capturing the baseline values for CAHR project implemented in China, Kenya, Malaysia, India and Indonesia, as well as providing country-specific recommendations on fine-tuning service delivery within the CAHR project for efficient high-quality service delivery. While country-specific reports are mostly focusing on the results of the study that inform programme delivery, this report provides an analysis of a number of characteristics of PWID and their drug use practices, as well as indicates potential for further investigation of possible factors that determine behavioural practices of PWID.

A cross country analysis was conducted based on a list of characteristics, such as drug injecting practices, risky injecting and sexual behaviour, interactions with the law enforcement system, knowledge about HIV and safe injecting, access to and satisfaction with services, and quality of life of PWID. The results vary across countries and depending on specific parameters. Nevertheless, there are certain trends that were established. In particular, respondents from Kenya differed significantly from participants from other countries based on a number of alarming characteristics. They had least access to such important HIV prevention service as needles and syringes (18% compared to 51% within the total sample received clean needles and syringes during the last month), very rarely contacted HIV servicing organizations (less than 7% of the respondents in Kenya indicated using services once a week or more often), felt being highly stigmatized (56% compared to 27%) and very vulnerable (58% compared to 29%), and the rate of sharing injecting equipment was highest for the respondents in Kenya across countries (48% respondents indicated sharing syringes/needles during the last injection compared to 18% within the total sample). Several other disturbing findings of the study include high syringe sharing rates among the respondents in India (21.3% during the last injection), very low condom use in Malaysia (70.8% of the respondents did not use condoms during the last sexual intercourse), inadequately low access to needles and syringes in Indonesia and China (39% and 38% respondents correspondingly indicated receiving them during the last 12 months).

Based on the obtained results, it is clear that a comprehensive HIV prevention strategy for PWID is required within countries, which would take into account the cross-country variations, but at the same time would include the following common elements that are proven to be effective: easy access to clean needles and syringes in sufficient quantities, decriminalization of drug use and drug possession, provision of services that would improve the living conditions of PWID, and better integration of HIV prevention and treatment services for PWID.

11. References

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12. Annexes

12.1. Annex 1. Baseline assessment questionnaire

Country	City / town / village

Date of interview		
Day	**Month**	**Year**

New client	Client reached with services during the last 12 months

INTRODUCTION

Hello. My name is _____. I am a representative of _____. At present we are conducting a survey among injection drug users. The survey is conducted within the framework of CAHR programme (Community Action on Harm Reduction), which is being implemented in 5 countries (India, Indonesia, Malaysia, China and Kenya). The goal of the programme is that by its end injecting drug users, their partners and children are healthier, less marginalized and more engaged in social and community life.

The survey will be conducted twice during the project term, now (in year 1) and in the end of the project (in year 4). The aim of the survey is to evaluate the results of the CAHR project.

I would like to ask you several questions; some of them are very personal and might be difficult for you to answer. I want to ensure you that your answers will stay confidential. The participation is voluntary. You are free not to answer the questions and can stop this interview at any time. Keep in mind that your sincere answers to our questions will help us to better understand the thoughts, views, and behaviour of people who inject drugs and to improve harm reduction programs in the future. We will be very grateful for your cooperation with us.

In the end of the survey the respondents who meet the inclusion criteria and completed the interview will receive a small remuneration for participation (_____*INSERT THE AMOUNT IN LOCAL CURRENCY*).

Do you agree to participate in our survey? It will take about 45 minutes.

Yes	No

	Please indicate the reason:

If no – end the interview.

If yes - before we proceed I would like to ask you several questions:

I1. Have you injected drugs in the last 3 months?

Yes →	*Proceed with the questionnaire*
No →	*End the interview*
No answer	*End the interview*

The interviewer should involve his / her judgement when recording the response to this question.

I2. How old are you?

Above 18 →	*Proceed with the questionnaire*
Below 18 →	*End the interview*
No answer	*End the interview*

The interviewer should involve his / her judgement when recording the response to this question.

I3. Do you live / work / study in this city / town / village?

Yes →	*Proceed with the questionnaire*
No →	*End the interview*
No answer	*End the interview*

I4. Have you received services from organisation_____during the past 12 months *(fill in the name of the organization)***?**
The response should match the response in the third box on top of p. 1 (new client vs. client reached with services during the last 12 months).

Yes	**No**	**No answer**
		End the interview

Please tell me the first letters of your first and last names, month and year of birth, and your gender, so that I can code your response and differentiate it from the other responses without disclosing your personal data.

Fill in the respondent's code: (first letters of his / her first name, last name, month of birth (two digits) and year of birth (last two digits), gender (1 for male, 2 for female and 3 for transgender). Do NOT ask to tell the full name, just the first letters.
Check yourself: the code should be composed of 7 digits.

First name *(first letter)*	**Last Name** *(first letter)*	**Month of birth** *(two digits)*	**Year of birth** *(last two digits)*	**Gender** *(1, 2 or 3)*

QUESTIONNAIRE

Mark with «+» the cell or cells that correspond to the response of the respondent. DO NOT READ aloud the response option "No answer"

SECTION A: ***Social and demographic characteristics of the respondent***

A1. Please indicate your level of education *(probe the respondent with options if he/she is unsure of the response):*

1.No education	2.Primary education	3.Basic (incomplete) high school	4.Complete high school	5.Incomplete college /university	6.Complete college /university (bachelor, master degree)
7. Other (specify):					

A2. How long have you lived in this city? *(Probe the respondent with options if he/she is unsure of the response)*

1. I was born here and have lived here since my birth	2.More than 10 years	3. 5 – 10 years	4. 3 – 4 years	5. 1 – 2 years	6. Less than one year	*7.* No answer *(don't read this aloud)*

A3. What is your occupation? *(Check one option that suits the respondent most)*

1. College student		5. Have occasional earnings	
2. Technical school student		6. Unemployed	
3. University or institute student		7. House-keeper	
4. Permanently employed		8. Disabled (handicapped)	
9. Other *(specify)*			

A4. How do you support yourself? (*Check all options that suit the respondent*)

1. By earning salary	
2. Income from business	
3. Income on property	
4. Social support from the state	
5. Family support	

6. No means to support yourself	
7. Other *(specify)*	
8. No answer	

A5. Select an option that best corresponds to your current marital status and sexual partners *(Read aloud all options to the respondent)*:

1. Married or have a permanent partner, and do not have other sexual partners	
2. Married or have a permanent partner but have another sexual partner or partners	
3. Do not have a permanent partner, have occasional sexual partner or partners	
4. Do not have neither a permanent partner nor occasional sexual partners	

A6. Do you live by yourself?

1.Yes	2.No	Other

If the answer is "NO", ⇒ go to question A7, if "YES" or "Other" ⇒ go to question A9

A7. Who do you live with? *(Mark all the options that apply)*

1. With husband/wife or a permanent partner	
2. With parent(s)	
3. With children	
4. With friend(s) / roommate(s)	
5. Other	

*If the option "*husband/wife or a permanent partner*" is not marked by the respondent ⇒ go to question A9*

A8. Does your wife/husband/sexual partner, with whom you live, inject drugs?

1.Yes	2.No	3. No answer *(don't read aloud)*

A9. How many children do you have?

1.One	2.Two	3.Three	4.Four or more	5.None	6. No answer *(don't read aloud)*

SECTION B: Drug injection practice

B1. At what age have you started to inject drugs?

_____*(write down the age)*

B2. How often have you injected drugs during the last 30 days *(prompt the respondent with options)*?

1.Once		5. 4 – 6 times a week	
2. 2 – 3 times		6. Once a day	
3. Once a weak		7. Have not injected during the last 30 days	
4. 2 – 3 times a week		8. No answer	

B3. On an average day of injecting, how many times do you inject? *(Prompt the respondent with options)*:

1. Once a day	
2. 2-3 times a day	
3. At least 4 times a day	
4. No answer	

B4. What are the types of drugs that you mainly inject? (*Mark all the options that apply*)

1. Opiate		2. Stimulants		3.Sedatives		4. Other (Specify)
Heroin		2.1 Amphetamine		3.1 Benzodiazepine (Domicum)		
Liquid opium extract		2.2 Methamphetamine powder (crystallized/liquid)		3.2 Ketamine		
1.3 Pharmaceuticals Spasmoproxyvon Proxyvon Tidigesic Luprigesic Fortwin Spasmidon		2.3 "Ecstasy"		3.3 Calmpose		
				3.4 Diazepam		
				3.5 Other (specify)		
1.4 Buprenorphine		2.4 Other (specify)				
1.5 Methadone						
1.6 Quidict						
1.7 Other (specify)						

If a person names only one option, probe: anything else?

B5. What drug listed in the previous question do you consider as the main one? *(indicate one drug)*

_____

B6. Are you receiving opioid maintenance treatment?

1.Yes	2.No	3. No answer (don't read aloud)

B7. *(Only respondents who indicated using opiate drugs in response to B4 should be asked this question)* **Have you had opiates overdoses during the last 12 months and how many times it happened?** *Interviewer! Explain to the respondent, that opiates overdose is a condition after drug usage, when breathing slows down or even stops, the lips and nails become blue, such symptoms are observed as loss of consciousness and absence of reaction.*

1.Yes (*record in the cell below how many times)*	2.No	3. No answer *(don't read aloud)*

B8. Have you ever participated in blood-filling (after injecting, drawing blood into syringe to collect remaining drugs and then re-injecting)?

1.Yes	2.No	3. No answer *(don't read aloud)*

B9. Were you ever injected by someone else (when you were not in control over the injection)?

1.Yes	2.No	3. No answer *(don't read aloud)*

B10. The last time you injected drugs, did you use a clean needle and syringe that were not used previously?

1.Yes	2.No	3. No answer *(don't read aloud)*

B11. In the last 30 days, have you injected drugs with a needle and / or syringe previously used by another person?

1.Yes	2.No	3. No answer *(don't read aloud)*

If the answer is "NO", ⇒ go to question B 11.1, if "Yes", or" No answer" *⇒ go to question B12.*

B11.1. Please, think of the last 30 days once again. Have you at least once used a needle and / or syringe previously used by another person?

1. No, definitely	2.Yes

If the answer is "NO definitely*", ⇒ go to question B 14, if "*Yes*", ⇒ go to question B 12*

B12. If you injected drugs with other persons and used a needle and /or syringe previously used by somebody else, why did this happen?

1.No clean needle / syringe was available	2. I did not see the need to use a clean needle /syringe	3. I was using the needle /syringe after the person whom I trust	4. Needles /syringes are expensive to buy	5. Other (specify)	6. No answer

B13. If you injected drugs with other persons and shared a needle and /or syringe how often did you disinfect them within the last 30 days (i.e washed the syringe / needle with a disinfecting solution / liquid bleach)? *(read all the options aloud)*

1.Always	2.In the majority of cases	3.In half of cases	4.Sometimes	5.Rarely	6.Never	*7.*No answer *(don't read aloud)*

*If the answer is "*Always*", ⇒ go to question B 13.1, if the any other answer ⇒ go to question B 14*

B13.1. Please, think of the last 30 days once again. Was there at least one case when you did not disinfect a needle and /or syringe?

1. No, definitely	2.Yes

B14. Within the last 30 days, how often did you give, lend or sell a needle or a syringe to other persons after injection? *(read all the options aloud)*

1.Always	2.In the majority of cases	3.In half of cases	4.Sometimes	5.Rarely	6.Never	*7.*No answer *(don't read aloud)*

*If the answer is "*Never*", ⇒ go to question B 14.1, if any other answer ⇒ go to question B 15*

B14.1. Please, think of the last 30 days once again. Was there a case when you gave/lent/sold a needle or a syringe to other persons after you had used it?

1. No, definitely	2.Yes

B15. Please, say if you have injected yourself using an already preloaded syringe (i.e. you did not see how it was loaded) during the last 30 days?

1.Yes (*record in the cell below how many times)*	2.No	3. No answer *(don't read aloud)*

B16. During the last 30 days how often have you shared injecting equipment (spoon, cup, cotton, filters, water etc) with others? *(read all the options aloud)*

1.Always	2.In the majority of cases	3.In half of cases	4.Sometimes	5.Rarely	6.Never	*7.*No answer *(don't read aloud)*

*If the answer is "*Never*", ⇒ go to question B 16.1 if any other answer ⇒ go to question B 17*

B16.1. Please, think of the last 30 days once again. Was there a case when you shared injecting equipment?

1. No, definitely	2.Yes

B17. Where do you prepare and inject your drugs? (*read all options aloud, and mark all that apply)*

1.At home by yourself	2.At your / your friend's home together with other drug users	3. In the streets, yards, other public areas	4.Other (specify):

B18. How did you inject for the first time? (*Read all the options to the respondent)*

1.Injected yourself	2.Injected yourself with the help of sexual partner/ friend	3. Your sexual partner/ friend made the injection for you	4.Other (specify):

SECTION C: Police and Law

C1. Have you ever been arrested for drug-related crimes – such as using, possessing, buying or selling drugs?

1.Yes	2.No	3. No answer *(don't read aloud)*

*If the answer is "NO", or "*No answer*" ⇒ go to question C3*

C2. Have you been arrested for drug-related crimes – such as using, possessing, buying or selling drugs during the last year?

1.Yes	2.No	3. No answer *(don't read aloud)*

C3. Have you ever been kept in compulsory (not voluntary) drug detention centres?

1.Yes	2.No	3. No answer *(don't read aloud)*

*If the answer is "NO", or "*No answer" ⇒ *go to section D*

C4. Have you been kept in compulsory (not voluntary) drug detention centres during the last year?

1.Yes	2.No	3. No answer *(don't read aloud)*

SECTION D: Sexual behaviour

D1. Have you had sexual intercourse in the last 12 months?

1.Yes	2.No	3. No answer *(don't read aloud)*

*If the answer is "NO" or "*No answer" ⇒ *go to section E*

D2. Have you had sexual intercourse in the last 12 months with: *(read aloud the options and mark all that apply)*

1. A permanent partner (husband/wife or other person with whom you have a long-lasting relationship)	2. Casual (not commercial) sexual partner (does not include situations when you paid for sex or you were paid for sex)	3. Commercial sexual partner (when you paid for sex or you were paid for sex)	4. No answer *(don't read aloud)*

*If the respondent does not mark a single option or the answer is "*No answer" ⇒ *go to section E*

D3.Did you use a condom the last time you had sexual intercourse with: *(read aloud only for types of sexual partners that where marked in D2)*

	1.Yes	2.No	3. No answer *(don't read aloud)*
1. A permanent partner	**1.1**	**1.2**	**1.3**
2. Casual (not commercial) sexual partner	**2.1**	**2.2**	**2.3**
3. Commercial sexual partner	**3.1**	**3.2**	**3.3**

D4. In the last 30 days, have you had sexual intercourse with *(read aloud only for types of sexual partners that where marked in D2)*

	1.Yes	2.No	4. No answer *(don't read aloud)*
1. A permanent partner	**1.1**	**1.2**	**1.3**

2. Casual (not commercial) sexual partner	**2.1**	**2.2**	**2.3**
3. Commercial sexual partner	**3.1**	**3.2**	**3.3**

*If the respondent does not mark a single option or the answer is "*No answer" *⇒ go to question D7*

D5. Within the last month (30 days), how often did you use a condom during sexual intercourse? *(Read aloud only for types of sexual partners that where marked in D4)*

	1.Always	2.In the majority of cases	3.In half of cases	4.Sometimes	5.Rarely	6.Never	*7.*No answer *(don't read aloud)*
1. With a permanent partner	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**1.6**	**1.7**
2. With a casual (not commercial) sexual partner	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**2.6**	**2.7**
3. With a commercial sexual partner	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**3.6**	**3.7**

*If at least one answer is "*Always*", ⇒ go to question D5.1, in all other cases ⇒ go to question D6*

D5.1. Please think of the last month (30 days) once again. Was there a case when you did not use a condom during your sexual intercourse? *(Read aloud only for those types of sexual partners for which the response was "always' in D5)*

	1.Yes	2.No, definitely
1. With a permanent partner	**1.1**	**1.2**
2. With a casual (not commercial) sexual partner	**2.1**	**2.2**
3. With a commercial sexual partner	**3.1**	**3.2**

*If at least one answer is "*Yes*", ⇒ go to question D6, in all other cases ⇒ go to question D7*

D6. If you did not always use a condom during sexual intercourse, why is that? *(Read aloud all the options and mark all that apply)*

1. No condom at the moment when it was needed	2. Using a condom lowers senses	3. Condoms are too expensive	4. My partner insisted on not using a condom	5. I did not consider it necessary	6. I did not think about it at all	7. I was alcohol intoxicated	8. I was under influence of drugs	9. I became a victim of sexual violence	10. Other (specify):	11. No answer

D7. Do you feel condom use is socially acceptable (you and your friends / neighbours are willing to use condoms during sexual intercourse)?

1. Yes	2. Partially	3. No	4. No answer *(don't read aloud)*

D8. What do people you know mostly use condoms for *(read aloud the options and mark all that apply)*?

1. Preventing undesired pregnancy	2. Prevention of HIV and STIs	3. Do not use condoms	4. No answer *(don't read aloud)*

SECTION E: Knowledge about HIV/AIDS and safe injecting

E1. Do you agree with the following statements about HIV/AIDS and injecting practices?

Specify the answer in each line		Yes	No	*No answer (Don't read aloud)*
		1	2	3
1	I can avoid HIV-infection having sex only with one faithful partner who is not infected.			
2	I can avoid HIV-infection using a condom correctly every time during the sexual intercourse			
3	A person looking healthy can be HIV-positive.			
4	A mosquito's bite can infect with HIV.			
5	A person can get HIV by drinking from a glass with an HIV-positive person.			
6	A person can get HIV by sharing a toilet, swimming pool, or sauna with an HIV-positive person.			
7	Using a shared needle even once can increase the risk of HIV transmission			
8	Not using another person's injecting equipment reduces the risk of HIV			
9	If someone is suffering overdose they should be put in a tub of cold water			
10	A person's lips turn blue when suffering from overdose			
11	HIV-infection can be transmitted from an HIV-positive mother to her child during pregnancy.			
12	HIV-infection can be transmitted from an HIV-positive mother to her child during delivery.			
13	HIV-infection can be transmitted from an HIV-positive mother to her child during breast-feeding.			

SECTION F: HIV-testing

F1. Do you know where to go to get an HIV test?

1. Yes	2. No	4. No answer *(don't read aloud)*

F2.Do you have a possibility to get HIV-test anonymously (without giving full name and personal information)?

1. Yes	2. No	4. No answer *(don't read aloud)*

F3. Have you ever undergone an HIV-test?

1. Yes	2. No	4. No answer *(don't read aloud)*

*If the answer is "*Yes*", ⇒ go to question F5, if "*No answer*" ⇒ go to section G*

F4. Why have you never taken an HIV test? *(Do not read aloud all the options, unless the respondent is unsure about the answer. Mark all the options that apply)*

1. I don't know where to go	
2. There is no HIV testing point/station/centre where such tests are available in my city/village	
3. I don't know where the HIV testing point /station/centre is located	
4. I have no money for an HIV test	
5. Working schedule of such HIV testing point /station/centre does not match my needs	
6. The location of the HIV testing point /station/centre does not match my needs	
7. The staff's attitudes are a problem for me	
8. I am afraid that my HIV status or my drug use will be made public	
9. I am afraid that my HIV status or my drug use will be known by the Government	
9. Other, *specify*	

After asking this question⇒ go to section G

F5. Did you get an HIV test during the last 12 months?

1. Yes, it was within the last 12 months	2. No, it was more than 12 months ago	3. No answer (*don't read aloud*)

F6. Did you get your results in the last test?

1. Yes	2. No	3. I am waiting for them	*4.* No answer *(don't read aloud)*

If the answer is "Yes", ⇒ go to question F7, in all other cases ⇒ go to Section G

F7. Do you want to tell us about your HIV-status? *(You shall remind a respondent that the questionnaire results are very confidential***.**)

1. Yes (If "Yes", what is it :)		2. No	3. No answer *(don't read aloud)*
1.1. HIV-positive	1.2. HIV-negative		

If the answer is "Yes, HIV-positive", ⇒ go to question F8, in all other cases ⇒ go to Section G

F8. Are you registered with ART provision centre?

1. Yes	2. No	3. No answer *(don't read aloud)*

If the answer is "No", ⇒ go to question F9, in all other cases ⇒ go to Section G

F9. Why are you not registered with ART provision centre?

1. I do not need ART yet	2. I do not have access to ART provision centre	3. I am not able to cover ART-related costs	4.Other (specify):	5. No answer *(don't read aloud)*

SECTION G: Services provided, satisfaction with services

G1. Are you a client of organization _____ *(fill in the name of the organization)* **working with people who use drugs?**

1.Yes	2.No	3. No answer *(don't read aloud)*

G2. Have you received any services provided by _____ *(fill in the name of the organization)* **during the last 12 months?**

1.Yes	2.No	3. No answer *(don't read aloud)*

If the answer is "NO" or "No answer" ⇒ go to question G6

G3. How often did you receive services from _____ *(fill in the name of the organization)* **during the past 12 months** *(read aloud all options to the respondent)*?

1. Once or twice in the last year	
2. 3-5 times in the last year	
3. 6 - 11 times in the last year	
4. About once a month in the past year	
5. Two – three times a month in the last year	
6. About once a week in the last year	
7. Twice a week or more often in the last year	

G4. Which of the following services did you receive from _____ *(fill in the name of the organization)* **during the past year and to what extent are you satisfied with the quality of the services that were provided to you?** *(Read aloud all types of services. First ask about whether each service was received, and then about whether the respondent is satisfied with its quality. Read aloud all variants of the response. Mark the responses by ranking 1 to 4.)*

Type of services	Have you received this service during the past year?	Very unsatisfied	Average quality	Very satisfied	No answer *(don't read aloud)*
		1	2	3	4
1. Needles and syringes		1.1	1.2	1.3	1.4
2. Access / adherence to opioid		2.1	2.2	2.3	2.4

substitution treatment or other drug dependence treatment					
3. HIV testing and counselling		3.1	3.2	3.3	3.4
4. Access / adherence to antiretroviral therapy		4.1	4.2	4.3	4.4
5. Access to prevention and treatment of sexually transmitted infections		5.1	5.2	5.3	5.4
6. Condoms		6.1	6.2	6.3	6.4
7. Targeted information, education and communication about safe sex and safe injecting		7.1	7.2	7.3	7.4
8. Access to diagnosis, treatment and vaccination of viral hepatitis		8.1	8.2	8.3	8.4
9. Access to prevention, diagnosis and treatment of TB		9.1	9.2	9.3	9.4
10. Shelter, shower, food, other services that satisfy basic needs		10.1	10.2	10.3	10.4
11. Basic health services (including vein care, and overdose prevention and management)		11.1	11.2	11.3	11.4
12. Sexual and reproductive health services (including PMTCT, family planning, access to safe abortion and maternal health services)		12.1	12.2	12.3	12.4
13. Home based care and support for HIV positive drug users		13.1	13.2	13.3	13.4
14. Family support (for you and your relatives)		14.1	14.2	14.3	14.4
15. Access to justice/legal services		15.1	15.2	15.3	15.4
16. Economic strengthening activities		16.1	16.2	16.3	16.4

G5. Which of the following services do you need? *(Mark for all services listed below by ranking 1 to 4. Read the four variants of the response aloud)*

Type of services	I do not need this service	I need this service sometimes / I more less need it	I need this service very much	No answer *(don't read aloud)*
	1	2	3	4
1. Needles and syringes	1.1	1.2	1.3	1.4
2. Access / adherence to opioid substitution treatment or other drug dependence treatment	2.1	2.2	2.3	2.4
3. HIV testing and counselling	3.1	3.2	3.3	3.4
4. Access / adherence to antiretroviral therapy	4.1	4.2	4.3	4.4
5. Access to prevention and treatment of sexually transmitted infections	5.1	5.2	5.3	5.4
6. Condoms	6.1	6.2	6.3	6.4

7. Targeted information, education and communication about safe sex and safe injecting	7.1	7.2	7.3	7.4
8. Access to diagnosis, treatment and vaccination of viral hepatitis	8.1	8.2	8.3	8.4
9. Access to prevention, diagnosis and treatment of TB	9.1	9.2	9.3	9.4
10. Shelter, shower, food, other services that satisfy basic needs	10.1	10.2	10.3	10.4
11. Basic health services (including vein care, and overdose prevention and management)	11.1	11.2	11.3	11.4
12. Sexual and reproductive health services (including PMTCT, family planning, access to safe abortion and maternal health services)	12.1	12.2	12.3	12.4
13. Home based care and support for HIV positive drug users	13.1	13.2	13.3	13.4
14. Family support (for you and your relatives)	14.1	14.2	14.3	14.4
15. Access to justice/legal services	15.1	15.2	15.3	15.4
16. Economic strengthening activities	16.1	16.2	16.3	16.4

G6. In general, what are the key factors that are important to you in relation to service delivery? *(Read aloud all options and mark all that apply)*

1. Accessibility – close to my home, and open when I need it	
2. Staff friendliness, professionalism	
3. Range / menu of services being provided	
4. Confidentiality – information about my drug use and HIV status will be anonymous and won't be given to Government authorities	
5. Cost of services / services being free	
6. Other Specify:	

SECTION H: Well-being and quality of life

This is a section that aims to assess your well-being and quality of life *(note: read all response options for every question except for "No answer" for the respondent to choose)*

H1. Are your basic needs (food, shelter, clothing, etc.) fully met?

1. My basic needs are currently fully met	
2. My basic needs are somewhat met	
3. My basic needs are not met	
4. No answer *(don't read aloud)*	

H2. Do you feel safe and secure?

1. I constantly feel myself safe and secure	
2. I feel myself somewhat safe and secure	
3. I feel myself very vulnerable	
4. No answer *(don't read aloud)*	

H3. Do you feel pain/discomfort?

1. I have no pain or discomfort	
2. I have moderate pain or discomfort	
3. I have extreme pain or discomfort	
4. No answer *(don't read aloud)*	

H4. Do you feel Anxiety/Depression?

1. I am not anxious or depressed	
2. I am moderately anxious or depressed	
3. I am extremely anxious or depressed	
4. No answer *(don't read aloud)*	

H5. Do you feel being stigmatized?

1. I don’t feel I am stigmatized at all	
2. I feel some degree of stigmatization / I fear being stigmatized and that is why I hide my drug use/HIV status	
3. I feel that I am highly stigmatized	
4. No answer *(don't read aloud)*	

H6. How accessible are health services to you?

1. I feel that health services that I need are fully accessible to me	
2. I feel that health services that I need are somewhat accessible to me	
3. Health services that I need are accessible but I experience negative attitudes and actions by health service providers	
4. I feel that health services that I need are not accessible to me	
5. No answer *(don't read aloud)*	

H7. *(Only for female respondents)* **How accessible are sexual and reproductive health services (STI services, contraception and family planning, safe abortion, PMTCT, pregnancy/maternal health services)?**

1. I feel that SRH services are fully accessible to me, if I require them	
2. I feel that SRH services are somewhat accessible to me, if I require them	
3. I feel that SRH services are not accessible to me, if I require them	
4. No answer *(don't read aloud)*	

H8. How satisfied are you with your economic well-being? (*Mark one option which is chosen by the respondent*)

1. Fully satisfied	
2. Satisfied	
3. Somewhat satisfied	
4. Not satisfied	
5. Strongly dissatisfied	
6. No answer *(don't read aloud)*	

H9. Do you experience any negative attitudes / actions taken by the police and law enforcement attitudes in regard to you?

1. I do not experience any negative attitudes / actions taken by the police and law enforcement attitudes in regard to me	
2. I experience some negative attitudes / actions taken by the police and law enforcement attitudes in regard to me	
3. I experience extremely negative attitudes / actions taken by the police and law enforcement attitudes in regard to me	
4. No answer *(don't read aloud)*	

H10. Do you feel you are supported by your community (neighbours / other drug users /etc)?

1. I feel high level of support from the community	
2. I feel some support from the community	
3. I don't feel my community supports me at all	
4. No answer *(don't read aloud)*	

H11. Do you feel your family supports you?

1. I feel that my family supports me	
2. I feel that my family partially supports me	
3. I feel that my family does not support me	
4. I feel that my family does not want to have any relations with me	
5. No answer *(don't read aloud)*	

THANK YOU FOR YOUR COLLABORATION!

This is the remuneration for the study. Please sign this registry as an acknowledgement of the receipt of this.
Provide the remuneration to the respondent and ask him to sign the registry.
These are all the questions that I had to you. Finally, do you have any comments / questions that you would like to share with us?

_____
_____
_____

12.2. Annex 2. Factors associated with usage of clean needles and syringes – logistic regression results

				CI 95%	
	B	Sig.	Exp(B)	Exp(B)	Exp(B)
Age					
age	0.04	0.01	1.04	1.01	1.07
HIV-status					
negative (referent category)		0.02			
positive	-0.58	0.02	0.56	0.34	0.91
no answer	-0.62	0.02	0.54	0.31	0.92
Level of knowledge					
incorrectly answered (referent category)		0.02			
correctly answered	-0.55	0.01	0.58	0.38	0.88
no answer	0.45	0.60	1.56	0.29	8.31
Country					
Malaysia (referent category)		0.00			
China	-0.02	0.97	0.98	0.41	2.38
India	-1.36	0.00	0.26	0.12	0.56
Inonesia	0.09	0.84	1.09	0.48	2.51
Kenya	-2.39	0.00	0.09	0.04	0.19
Receiving and satisfaction with service - Needles and syringes					
did not receive (referent category)		0.07			
received	0.39	0.13	1.47	0.89	2.44
no answer	-0.97	0.09	0.38	0.12	1.18
Constant	1.87	0.00	6.49		