ASSESSMENT OF SITUATION & RESPONSE

OF DRUG USE AND ITS HARMS

IN THE MIDDLE EAST AND NORTH AFRICA











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AND ITS HARMS IN THE MIDDLE EAST AND NORTH AFRICA

AFARIN RAHIMI-MOVAGHAR MASOUMEH AMIN-ESMAEILI BEHRANG SHADLOO ELIE AARAJ





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It is with great pleasure that we present to the public health sector in general, and the harm reduction community in specific, the third assessment of situation and response of drug use and its harms in the Middle East and North Africa. This assessment is a new contribution to regional literature, and has been conducted as part of the information and knowledge building services that MENAHRA aspires to offer to civil society and the scientific community in the region. I hope that this regional report offers an added value to civil society organizations and decision makers in their efforts to scale up the harm reduction response.

On MENAHRA's 10 year anniversary, we are proud to have witnessed the evolution of harm reduction in the MENA region, and more specifically, we are proud to have been one of the key players in the region promoting and advocating for harm reduction. This evolution would not have been possible without the countless partnerships and tireless efforts of the entire harm reduction community in this region. However, despite all these efforts, people who use drugs are still criminalized and discriminated against in the region, limiting their access to life-saving services.

Moving into its second decade, MENAHRA aims to focus on building stronger and more extensive partnerships with communities, organizations, and governments to further contribute to harm reduction efforts in the region. We look forward to building a more conducive environment to ensure a better quality of life for people who use drugs in MENA.

This report would not have been possible without the contribution and cooperation of countless colleagues in the field. We extend our thanks to Dr. Afarin Rahimi and her team at INCAS for cooperating with MENAHRA and effortlessly conducting this wide and comprehensive review. We also would like to thank the Robert Carr civil society Networks Fund for funding the development of this report. I would also like to thank my team at MENAHRA, Ms. Micheline Abou Chrouch and Ms. Patricia Haddad, for their support and energetic participation in reviewing and editing the report.

Last but not least, this report is dedicated to the community of people who use drugs and their families in the region in recognition of their suffering and resilience.



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Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ARQ	Annual Reports Questionnaire
ART	Antiretroviral Therapy
ATS	Amphetamine-Type Stimulant
BBS	Bio-Behavioral Survey
BMT	Buprenorphine Maintenance Treatment
CI	Confidence Interval
CS0	Civil Society Organization
Cu	Cumulative
DIC	Drop-In-Center
DTC	Drug Treatment Center
EJG	East Jerusalem Governorate
ELISA	Enzyme-Linked Immunosorbent Assay
EMRO	Eastern Mediterranean Regional Office (World Health Organization)
FHI	Family Health International
FSW	Female Sex Worker
GF	The Global Fund
GINAD	Global International Network About Drugs
GNI	Gross National Income
GP	General Population
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HRI	Harm Reduction International
HSW	Hjira Sex Worker
HCT	HIV Counselling and Testing
IBBS	Integrated Bio-Behavioral Survey
IDU	Injecting Drug Use
INCB	International Narcotics Control Board
KAP	Knowledge, Attitudes, and Practices
L12M	Last 12 months
L2M	Last 2 months
L3M	Last 3 months
L6M	Last 6 months

LM	Last month					
MENA	Middle East and North Africa					
MENAHRA	Middle East and North Africa Harm Reduction Association					
MMT	Methadone Maintenance Treatment					
МОН	Ministry of Health					
MoPH	Ministry of Public Health					
MSM	Men who have Sex with Men					
MSW	Male Sex Worker					
N/S	Needles/Syringes					
NA	Not Available					
NASP	National AIDS Strategic plan					
NGO	Non-Governmental Organization					
NK	Not Known					
NRC	National Rehabilitation Center					
NSP	Needle/ Syringe Program					
OST	Opioid Substitution Therapy					
PLHIV	People Living with HIV					
PWID	People Who Inject Drugs					
PWUD	People Who Use Drugs					
RDS	Respondent Driven Sampling					
RSA	Rapid Situation Assessment					
SIDC	Soins Infirmiers et Developpement Communautaire					
STD	Sexually Transmitted Disease					
STI	Sexually Transmitted Infection					
Sy	Syringe					
UAE	United Arab Emirates					
UN	United Nations					
UNAIDS	Joint United Nations Programme on HIV/AIDS					
UNDP	United Nations Development Programme					
UNFPA	United Nations Population Fund					
UNICEF	United Nations Children's Fund					
UNODC	United Nations Office on Drugs and Crime					
VCT	Voluntary Counselling and Testing					
WHO	World Health Organization					

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EXECUTIVE SUMMARY



between 3% to 5% include Bahrain and Tunisia. Overall, an This is the third assessment carried out on Injecting Drug Use (IDU) and infection with Human Immunodeficiency Virus (HIV) in estimated 208,000 PWID are living with HIV/AIDS in the region, twenty countries of Middle East and North Africa (MENA). The first which shows an HIV prevalence of 23.5% in this population. assessment was conducted in 2008 (Rahimi-Movaghar, 2008) There is also sufficient evidence showing that injecting drug use followed by a second assessment in 2012 (Rahimi-Movaghar, contributes significantly to Hepatitis C Virus (HCV) epidemics in Amin-Esmaeili et al., 2012). The current 2016 assessment covers the region; most of the studies have shown an HCV prevalence of 20% to 56% among PWID. the following areas: drug use situation including injecting drug use, HIV and hepatitis C and B infection among People Who Inject Risk behaviors are not uncommon among PWID. However, there Drugs (PWIDs), risk behaviors, policies that support evidencebased HIV prevention programming among PWIDs, services are large differences between countries as well as between available for harm reduction, and priority areas for future planning. different groups of PWID within the same country. Overall, the

An extensive search was conducted in order to access data and documents on the related areas. Electronic searches of scientific bibliographic databases, as well as electronic and manual searches of UN related publications and websites were conducted. Moreover, reference lists of identified documents were extensively searched. In addition, key people, mainly in

UNAIDS and WHO offices, and Ministries of Health, as well as Six out of 20 countries of the region have clearly adopted researchers in the field, were contacted to access documents harm reduction policies. These countries are Afghanistan. Iran. and/or to inquire on missing data. Information that had been Lebanon, Morocco, Pakistan and Palestine. Opioid Substitution produced before the year 2010 was not included in this report. Therapy (OST) exists in seven out of 20 countries: Methadone In comparison to the similar assessment done in 2012, no major Maintenance Treatment (MMT) in four countries (Afghanistan, change in quantity and quality of information was found. Iran, Morocco, and Palestine); and Buprenorphine Maintenance Treatment (BMT) in four countries (Iran, Kuwait, Lebanon, and UAE). Iran uses opium tincture for substitution treatment as Updated data on drug use shows that in 11 countries of the region, cannabis is the most common drug used by the general well. Iran is the only country that has made OST widely available. population. Opioids in Afghanistan and Iran, tramadol in Egypt, mainly through private clinics. The service is also available other prescription drugs in Irag and Tunisia, khat in Yemen and in medium to large-size prisons within the country. OST has both amphetamine and cannabis in Saudi Arabia are reported as recently been initiated in Kuwait and Palestine, while Morocco main drugs of use. However, opioids are the primary drugs of use and Lebanon have expanded their OST services during recent years. Additionally, Oman and Pakistan have received approval in clients of drug treatment centers. Cannabis, amphetamines, for initiating OST services. Nine countries of the region have and prescription drugs are among the other drugs of dependence. Drug use is associated with significant social, economic and Needle/ Syringe Programs (NSPs). The service has expanded in health consequences in the region. Iran, Pakistan and Palestine, Afghanistan, Lebanon, Morocco, and Tunisia also have extensive programs. Jordan initiated an Estimates on the prevalence of injecting drug use among NSP in five governorates in the year 2013, which later expanded populations aged 15-64 are available from 11 countries, and to cover around 10 governorates in 2015. The program seems to ranged from 0.46/1000 among the adult population in Saudi have stopped in Egypt and Oman. HIV Counselling and Testing (HCT) is widely available in 14 countries of the region; however, Arabia to 3.76/1000 in Pakistan, Extrapolations were made to other countries of the region from the information available for the coverage of HCT remains low.

the 11 countries. The total number of PWID is estimated to be around 887,000 for the 20 countries, which is clearly higher than Generally, countries in the region are experiencing different the previous estimate for the year 2012. The highest number of levels of HIV epidemics among PWID, as well as varying levels PWID is found in Pakistan, Iran and Egypt. Heroin is the main of supportive policies and service provision. In this assessment, drug of injection reported from most countries of the region. countries have been categorized based on indicators focusing on Other opioids like opium, morphine, methadone, buprenorphine "extent of injecting drug use" and "contribution of injecting drug and other prescription opioids, and amphetamine-type stimulants use to HIV epidemics" According to this categorization, the Priority 1 countries for support and action are Afghanistan, Bahrain, and other prescription drugs are also injected. Information on the socio-demographic characteristics of PWID shows that they are Egypt, Iran, Libya, Morocco, Pakistan, and Tunisia. Priority 2 countries are Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, predominantly male, with a mean age of 30 to 40. Around one-Saudi Arabia, and UAE. Several countries need to conduct PWID third are currently married and one- to two-thirds of PWID are either uneducated or have an education of less than 5 years. size estimation or Bio-Behavioral Survey (BBS) studies to improve More than two-thirds have history of incarceration. their knowledge on IDU/HIV situation. Many countries would still benefit from advocacy for adopting harm reduction strategies and According to UNAIDS, the HIV epidemic has been stabilized in establishing, or scaling-up, their preventive services for PWID.

the Middle East and North Africa in recent years. Unprotected Although generally HIV epidemics have been stabilized and sex (mainly between men) and unsafe injection drug use are the primary drivers of the HIV epidemics in the region. HIV in PWID policies and services have been improved in the last decade, the accounts for around half of the HIV cases in Afghanistan, Bahrain, progress has been slow, and it is highly probable that the region Iran and Libya. PWID also highly contribute to HIV epidemics faces a greater epidemic in the future. PWID are highly at risk and in Egypt and Tunisia. Concentrated HIV epidemics have been might play an important role in the worsening of the situation. reported among PWID from eight countries: Afghanistan, Egypt, Efforts of the countries, as well as actions planned at the regional Iran, Libya, Morocco, Oman, Pakistan, and Saudi Arabia. level, should be intensified in order to take effective measures.

Since 2010, twenty-one bio-behavioral surveys that include PWID have been conducted in 10 countries of the region. The highest HIV prevalence has been reported from Libya (87.1%), Pakistan (37.8%), Morocco (25.1%) and Iran (19%). Afghanistan and Egypt have also reported HIV prevalence of over 5% in at least one site, after 2010. Countries with HIV prevalence of

data shows that about 20% of injections are unsafe. Moreover, sexual relations with female sex workers as well as same-sex relations are not rare behaviors among PWID. Less than one-third of PWID use condoms in their sexual practices. Many PWID do not have adequate knowledge on HIV infections, risk behaviors, and preventive measures.

BACKGROUND





Drug use can result in a variety of adverse social and health consequences. Drug dependence, infection with blood-borne viruses, overdose, suicide and death are regarded as the main consequences of drug use (Degenhardt, Whiteford et al. 2013). However, the prevalence, pattern and severity of drug use, shows great variation from place to place and changes with time.

Injecting drug use largely contributes to the harm associated with the use of drugs. People Who Inject Drugs (PWID) are among the most vulnerable and marginalized People Who Use Drugs (PWUD). For the year 2015, it has been estimated that the number of PWID worldwide is 11.8 million (8.6 to 17.4 million), corresponding to 0.25% (0.18 to 0.36%) of the population aged 15-64 years (UNODC 2017). The majority of harms associated with injecting drug use relate to the associated risk behaviors. It has been shown that harm reduction measures are successful in reducing risk behaviors associated with injecting drug use. These measures mainly aim to provide access to clean needles and syringes, and substitute drugs with less harmful medically provided agents.

For over a decade in many countries of the Middle East and North Africa (MENA), injecting drug use has been and is still contributing significantly to HIV/AIDS epidemics. However, the response has not been appropriate for the size of the problem. In 2007, the World Health Organization (WHO), in partnership with the Harm Reduction International (HRI), initiated a five-year project for networking, capacity building, and developing model programs for HIV/AIDS prevention and treatment targeted at PWIDs in the MENA region through the creation of a network called the Middle East and North Africa Harm Reduction Association (MENAHRA). In 2008, when a structured effort was made to enhance HIV prevention for PWID in the region, MENAHRA conducted the first assessment on the «Situation and Response to Drug Use and its Harms in MENA» (Rahimi- Movaghar 2008). The assessment shed light on the path of MENAHRA and led to the setting of three and five year targets.

After several years of collaboration between the pioneers of harm reduction in the region with the support received from WHO and HRI, MENAHRA was established and registered as a regional Non-governmental Organization (NGO) in 2012. MENAHRA aims to improve the quality of life of drug users through advocacy, capacity building, and technical assistance, and by serving as a resource centre in the region.

In 2012, the second assessment on the situation of response to drug use and its harms in 20 countries of MENA was conducted (Rahimi- Movaghar, Amin-Esmaeili et al. 2012). The assessment revealed that problematic drug use is increasing in many countries of the region and the total number of PWID was estimated to be around 570,000. PWID were, and continue to be, an extremely marginalized population in the whole region, and while the HIV epidemic was stabilized in most parts of the world, HIV rates continued to increase in the MENA. Unprotected sex (mainly between men) and unsafe injecting drug use were the primary drivers of the HIV epidemics in the region. The assessment also highlighted that from 2,790 newly identified cases of HIV/AIDS with known routes of transmission reported from 15 countries in 2010, half were PWID.

Eight countries had been reported to have concentrated HIV epidemics among PWID. These countries were: Afghanistan, Algeria, Egypt, Iran, Morocco, Oman, Pakistan and Saudi Arabia. It was estimated that 90,000 PWID were living with HIV/ AIDS in the region, corresponding to an HIV prevalence of over 15% within this population. Associated risk behaviors were not uncommon; about 20% of injections were unsafe. Moreover, commercial sex and same-sex relations were common among PWID with rare adherence to condom use. Many PWID did not have enough knowledge on HIV infections, risk behaviors, and preventive measures.

Five countries of the region (Afghanistan, Iran, Lebanon, Morocco The method used for carrying out the assessment of injecting and Pakistan) had adopted harm reduction policies within their drug use and HIV situation and response is based on evidence National AIDS Strategic Plan (NASP), Opioid Substitution Therapy (OST) existed in five out of 20 countries. Nine countries survey reports and publications, government reports, civil society of the region had Needle/Syringe Programs (NSPs). However, information and other sources of data. Only information produced all these countries had a low coverage, and the conclusion was since 2010 is included in this document. The assessment reviews changes in drug use, HIV epidemiology, harm reduction policies, that PWID were highly at risk and might have an important role and service provision since the last assessment was conducted in in the worsening of the situation. The 2012 assessment called 2012; it also highlights developments and achievements in recent for strengthening of the countries' efforts in the region in taking effective measures. years. It covers main indicators in the epidemiology of HIV/IDU, as well as the policies and services, and provides a framework This document is the third assessment of the epidemiology of for comparing the situation among the 20 countries in the MENA injecting drug use and HIV/AIDS among PWID and the related region. Some of the indicators are adapted and modified in a response, covering twenty countries of the MENA region. These countries include Afghanistan, Algeria, Bahrain, Egypt, there is limited data available on some aspects in a number of Iraq, Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, UAE and other countries.

produced and presented from the countries, and is largely based on way to cover as much information as possible. Moreover, while countries, there is adequate data for a reasonable analysis in Yemen. The countries are diverse in terms of geographical area, population size, level of income and industrialization, as well as MENAHRA has been successful in receiving a grant from the Global Fund (GF) (2012-2016) for strengthening the role of civil nature and the extent of the drug and HIV problem. The map of the region, as well as data on selected indicators is presented in society organizations in harm reduction in the region. This review prepares a basis for monitoring the progress made through the Table 1 and Figure 1. support received from the GF.

Table 1 General characteristics of countries in the MENA region

Country	Total population (1000s) (2015) (UN Population Division 2017)	Population living in urban areas (%) (2015) (UN Population Division 2017)	Adult literacy rate (%) (2015) (UNESCO Institute for Statistics 2017)	Income Group (The World Bank 2017)	GNI per capita (Int\$) (2015) (The World Bank 2017)	HDI rank (2015)
Afghanistan	32,527	26.7	38.2	Low	1.940	169
Algeria	39,667	70.7	79.6	Upper middle	14,310	83
Bahrain	1,377	88.8	95.7	High	38,660	47
Egypt	91,508	43.1	75.8	Lower middle	10,710	111
Iran	79,109	73.4	87.2	Upper middle	17,430 (2014)	69
Iraq	36,423	69.5	79.7	Upper middle	15,340	121
Jordan	7,595	83.7	98.0	Upper middle	10,760	86
Kuwait	3,892	98.3	96.1	High	84,360	51
Lebanon	5,851	87.8	94.1	Upper middle	13,750	76
Libya	6,278	78.6	91.4	Upper middle	11,040 (2011)	102
Morocco	34,378	60.2	71.7	Lower middle	7,690	123
Oman	4,491	77.6	94.0	High	38,650	52
Pakistan	188,925	38.8	56.4	Lower middle	5,320	147
Palestine	4,668	75.3	96.7	Lower middle	5,080 (2014)	114
Qatar	2,235	99.2	97.8	High	138,480	33
Saudi Arabia	31,540	83.1	94.8	High	54,840	38
Syria	18,502	57.7	86.3	Lower middle	NA	149
Tunisia	11,254	66.8	81.1	Lower middle	11,100	97
UAE	9,157	85.5	93.0	High	70,020	42
Yemen	26,832	34.6	70.0	Lower middle	2,720	168



of the 2012 situation assessment (Rahimi - Movaghar, Amin -Esmaeili et al. 2012).

1. Determining main areas of assessment and the indicators

First, the areas to be covered in the current assessment were selected, and they are as follows:

- Overall drug situation, including common drugs of use and the prevalence of drug use in the general population, as well as problem drug use;
- Injecting drug use consisting of size estimations, drugs of injection and main characteristics of PWID;
- HIV epidemic in the general population covering identified number of cases, estimations for number of People Living with HIV/AIDS (PLHIV), main at risk groups for HIV infection, the pattern of HIV transmission, and HIV/AIDS cases attributable to injecting drug use;
- Prevalence of HIV infections among PWID;
- Prevalence of Hepatitis C and B infections among PWID:
- Risk behaviors of PWID, including unsafe injection, unsafe sexual behavior, as well as HIV knowledge:
- Policies toward HIV prevention among PWID, as presented in national policy documents;
- Services available for harm reduction, including availability and coverage of NSPs and OST;
- Availability and take up of HIV Counselling and Testing (HCT) by PWID:
- · Main studies related to the above-mentioned areas carried out in the country, including bio-behavioral surveys on PWID;
- NGOs involvement in harm reduction interventions; For this review, national narrative progress reports on HIV/AIDS Main challenges in policy-making and implementation of harm were available for most countries for the years 2014 and/or reduction strategies, and steps forward. 2015. Generally, the reports were shorter than before and rarely provided details on situations of PWID and the extent of specific 2. Extensive search for documents and data interventions. In addition, many NASPs were not updated and an analysis on strengths, weaknesses, opportunities and threats The process of searching for the related sources was carried out were not available.

in February 2017. The search was limited to documents that have been published since 2010. The intent was to understand the new trends and developments in the field.

The following sources were used to identify and retrieve the related publications, documents, and data from the region:

- Electronic searches of scientific bibliographic databanks: o Medline through Ovid
 - o Web of Science (ISI)
 - o Scopus
 - o EMBASE
- o Index Medicus EMRO (IMEMR)
- Electronic and manual search of UN related publications and Many times, the complete study report was not available and websites, such as UNAIDS, WHO, UNODC, and the World the data was fragmented and scattered in various sources. Bank for global, regional and country information and reports In such cases, several sources were used to bring together International and regional NGOs, such as HRI and MENAHRA all pieces of data.
- Websites of related bodies in the countries
- Conference Abstracts
- Review of reference lists of identified documents •
- Subject-specific searches in Google and Google Scholar
- Personal communications with key people, mainly in UNAIDS field

and WHO offices, Ministries of Health, and researchers in the The findings from this review are described in the following chapters. In the first chapter, a summary of the HIV/IDU situation Personal archive of the research team and response is presented for each of the 20 countries in the region. In the second chapter, the regional overview is presented For searching bibliographic databanks, following sets of key for the main aspects covered in this review. The information words were used. - including those not given in detail in the main body of this report -1) Drug related key words; is presented in the tables in the Annexes.

- 2) HIV/AIDS or Hepatitis key words;
- 3) Prison-related keywords;
- 4) Key words of the countries of the MENA region.

METHOD



The methodology utilized for this assessment is similar to that All records retrieved from Medline, Scopus, ISI and Embase were exported to an Endnote file. After excluding duplicated records, 4,349 records remained. Data retrieved from IMEMR (1998 records) was separately saved in a Microsoft Word file.

3. Extensive review of the retrieved documents, data extraction, and analysis

All documents and data were extensively reviewed, and the data was extracted on each indicator or area, on a country basis. Specific attention was made to identify the year and method of data production, as well as the definition of the populations studied. Although several global and regional reports have been published since 2012, for this report country reports were relied, which were more accurate and have documented the details of study characteristics and findings, and have led to a more precise analysis on available evidence. For information related to policies and services, the most recent available information is presented.

Overall, the extent and the quality of data was not significantly better than the data that was available during the previous assessment in 2012 In the prior assessment, two rounds of country progress reports on HIV/AIDS, i.e. 2010 and 2012 had been released. The reports included comprehensive information on situation and response, as well as analyses of limitations and future plans. In addition, support received through the GF for several countries was crucial in implementing bio-behavioral surveys, which produced valuable information on risk situation and environment among PWIDs and response.

- Some limitations were faced in extracting data from surveys. In many instances, different reports provided contradictory data from a single study. In such cases, the following steps were taken:
- If one of the documents was the original complete study report, data provided in that report was utilized. However, in some cases, other documents provided additional information produced by secondary analysis. In such a case, all data and sources were utilized.
- If a complete study report as well as a published paper on that study were available, the published paper was the basis of the extracted data.

Nevertheless, data remains scarce in several countries. Areas where information is especially lacking are highlighted throughout this review.

COUNTRY PROFILES





Afghanistan is a low income country which has gone through five cities showed an HIV prevalence of 0.3% to 13.3% among serious political changes and faced instability and war in the last PWID (Johns Hopkins University and Afghanistan MoPH 2012). decade. Afghanistan is the world's largest producer of opium. In A concentrated HIV epidemic was found among PWID in Herat, the year 2016, the total area under opium poppy cultivation was in which an HIV prevalence of 18.2% in 2009 and 13.3% in 2012 estimated at 201,000 hectares and country production of opium were reported (Johns Hopkins University and Afghanistan MoPH was estimated at 4,800 tons (4,000 - 5,600) (Afghanistan Ministry 2010, Johns Hopkins University and Afghanistan MoPH 2012). of Counter Narcotics 2016). Afghanistan also continues to be No other concentrated HIV epidemic has been found among the second largest producer of cannabis resin after Morocco PWID in other areas and other key populations. The 2012 IBBS (UNODC 2016). study, HCV prevalence ranged from 9.5% to 70% and Hepatitis B Virus (HBV) prevalence from 3.2% to 8.3% (Johns Hopkins The population has been affected by the availability of drugs University and Afghanistan MoPH 2012). A systematic review of HCV infections among PWID revealed a pool prevalence of in the country. A 2010-2012 national household survey in 11 32.6% (CI: 24.5-41.3%) (Chemaitelly, Mahmud et al. 2015). Most Afghan provinces (Cottler, Ajinkya et al. 2014), using interview and laboratory tests, showed that 5.1% (Cl: 4.4%-5.8%) of the PWID do not have adequate HIV knowledge, and unsafe sex and population were using at least one substance, including alcohol injection are relatively common risk behaviors (Johns Hopkins and abusive prescription drugs. Prevalence of substance use was University and Afghanistan MoPH 2012). A study in Kabul showed that unsafe injection had significantly increased during 7.2% among men and 3.1% among women. Cannabis was the most common drug of use among men and opioids were the most peak conflict periods amongst PWID (Todd, Nasir et al. 2016).

common drugs used among women and children. Opioids used in Afghanistan were predominantly opium, followed by codeine Afghanistan is running its third AIDS program (2016-2020). The country has adopted the harm reduction strategy since 2005. Harm reduction services for PWID have been provided in both inside and outside of prisons in nine provinces, and include NSP; management of STIs; counselling and testing for HIV, HCV and HBV; condom promotion; primary health care and medical management; referral to Anti-retroviral Therapy (ART); as well as social services (Afghanistan MoPH 2014). The first Methadone Maintenance Treatment (MMT) was launched in 2010, in Kabul, Afghanistan through an initiative by Medecins du Monde (MdM), with the support of the Afghan Ministry of Public Health (MoPH) and the World Bank (Ruisenor-Escudero, Vu et al. 2015). Several reports illustrated the feasibility and possible effectiveness of MMT (Ruisenor-Escudero, Vu et al. 2015). It was planned to expand services to include MMT clinics for PWID living with HIV/ AIDS. For this purpose, the Iranian National Center for Addiction Studies (INCAS), in collaboration with MENAHRA, conducted a training of trainers on OST in Afghanistan for physicians as well as healthcare workers that were involved in the pilot project in 2014. However, no further update is available on establishment of new clinics. ART is available, but coverage is low (Afghanistan MoPH 2014). Voluntary Counselling and Testing (VCT) is available throughout the country (Afghanistan MoPH 2014). Strategic interventions in the area of HIV prevention are mainly provided by NGOs. The main budget for HIV prevention is secured from the Global Fund, the World Bank, and UN agencies. However, there is no information regarding expansion of services and decrease of risks associated with HIV among PWID. Longlasting security challenges, low priority for HIV, poor infrastructure and low capacity, inadequate inter-sectoral collaborations, and discriminative policies of the drug control program (Afghanistan

and heroin. Benzodiazepines are the next commonly used drugs. No difference was found between those who lived or worked outside Afghanistan and those who did not when testing positive for opioids. It has been estimated that 1 to 1.6 million people used drugs within this country. Country reports a significant rise in use of opium and heroin in the recent years (Afghanistan Ministry of Counter Narcotics 2013). Methamphetamine use has emerged and is increasing (Afghanistan Ministry of Counter Narcotics 2013). Treatment services have expanded in recent years and hundreds of people have been trained to provide treatment and care for drug addicts. In 2012, an estimated 102 treatment centers were providing a range of services. However, treatment capacity remains low and can provide services of only up to 6% of the opioid users in the country (Afghanistan Ministry of Counter Narcotics 2013). In 2012, the number of PWID in four populated cities of Afghanistan (Kabul, Herat, Mazar-i-Sharif, and Jalalabad) was estimated to be around 16,700 (Johns Hopkins University and Afghanistan MoPH 2012). There is no new national estimation of number of PWID, and the most recent one dates back to 2009 with an estimation of 18,000 to 23,000 (Afghanistan MoPH 2014). Most PWID are voung with low levels of education, and are employed, usually as farmers or unskilled workers. More than half had lived outside of Afghanistan in the past 10 years (Johns Hopkins University and Afghanistan MoPH 2012, Afghanistan MoPH 2014). In Afghanistan, HIV prevalence among the general population is low (Afghanistan MoPH 2014), However, PWID have been contributed to HIV in over 40% of cases (WHO Eastern Mediterranean Region 2016). Two rounds of IBBS were conducted in 2009 and 2012, MoPH 2014, Todd, Nasir et al. 2016) are the main barriers with the second round having a bigger scope. The 2012 IBBS in towards the country's response to HIV.

ALGERIA

According to the 2010 national epidemiological survey on the prevalence of drugs in Algeria, cannabis and psychotropic drugs (mainly sedatives) are the mains drug of use, followed by opium. It is estimated that 302,000 people over the age of 12 use drugs (UNODC 2013, Abdennouri 2014). A large quantity of the cannabis produced in Morocco transits via Algeria. In the meantime, a rapid growth in the consumption of cannabis and other psychotropic substances has constantly been reported by the country in recent years (Abdennouri 2014). Amphetamine use has also been reported in recent years (UNODC 2014). According to the Frantz Fanon detoxification center in Blida - the oldest and largest center in Algeria with around 1,000 cases per year - the primary drugs for treatment demands were cannabis, opiates and psychotropic drugs in 2012. Clients with opiate dependence have increased considerably over the few previous years (Abdennouri 2014). There is no information on the extent of injecting drug use and characteristics of those who inject. Algeria has planned to set up a widespread network of treatment centers for drug addicts in different regions of the country since 2007, and now, several outpatient and inpatient settings are available for this purpose (Abdennouri 2014).

HIV prevalence among the general population has remained low in Algeria. Men who have Sex with Men (MSM), Female Sex Workers (FSW) and PWID are considered to be key populations (Algeria MoH 2014). The pattern of HIV transmission has not changed over the years; more than 90% are infected via heterosexual transmission. There is a report from screening centers indicating HIV sero-prevalence of 1.1% among PWID (Algeria MoH 2014). A study on PWID was conducted in 2004-2005; no study was conducted on this group after that.

In the last National AIDS Strategy (2013-2015), the PWID population was identified as a vulnerable group for HIV (Algeria MoH 2013); however, no specific intervention has been envisaged. OST and NSP do not exist. However, HIV testing and ART are widely available (Algeria MoH 2014). Few NGOs are active on HIV prevention, but none are specifically targeting PWID (Algeria MoH 2014). Overall, HIV prevention for key populations is weak. Stigma, poor mobilization of financial resources by NGOs, and weak surveillance systems are among the main barriers of the effective development of prevention activities.

BAHRAIN

Bahrain is a small high-income country; however, since 2011, it has witnessed a series of internal conflicts, which might have affected the country's health services. There is no updated data on the extent and nature of drug problem. It has been reported that recently, injection begins earlier during the course of drug use. Heroin is the primary drug of injection, followed by amphetamines and cocaine (Bahrain MoH 2014). There is a specialized drug rehabilitation center at a psychiatric hospital in Manama.

HIV prevalence remains low in Bahrain. The main key population is PWID. In 2012-2013, injecting drug use was the route of HIV transmission in less than half of the newly identified cases (Bahrain MoH 2014).

In the 1990s, a concentrated HIV epidemic was reported among PWID, a finding that was never replicated again. Mandatory screening for PWID admitted to drug rehabilitation showed an HIV prevalence of 3.3% in 2010 (in 181 cases) and 4.6% in 2011 (in 151 cases) (Bahrain MoH 2014). No IBBS or Knowledge, Attitudes, and Practices (KAP) study on PWID has been conducted since 2010. No data is available on the characteristics of PWID and their risk behaviors in this country.

Bahrain has not renewed its National AIDS Strategy (2008-2010). Although PWID have been acknowledged as the main priority group for HIV prevention, effective harm reduction strategies like NSP and OST have not been envisaged. Some HIV awareness training exists for those who attend rehabilitation services and those who are incarcerated. The Bahrain's prison program for PLHIV, which started in 2009, has faced problems in continuity in recent years. VCT is unavailable in the country, and although in 2013 anonymous HIV testing was endorsed as an important component of HIV law, it has not been operationalized. One center in Manama is providing ART and PWUD are not excluded from the service (Bahrain MoH 2014). Although few NGOs are active in the field of HIV prevention among general population and youth, there are no such activities for key populations (Bahrain MoH 2014).

Inadequate financial and human resources, difficulties in coordination between agencies, cultural barriers, and recent political conflicts are the main barriers affecting the establishment and promotion of harm reduction services.

EGYPT

Although it seems that drug use is a serious problem in Egypt, The last National Strategic Plan for HIV is for the years 2012-2016. new information on the extent and nature of the problem is It includes a spectrum of prevention, treatment and care services scarce. Unpublished, as well as published, data from small for key populations (Egypt MoHP 2015). HIV prevention services studies indicate that tramadol is the most frequently used drug for PWID were initiated in 2010, but stopped in 2012, when the among the general population, students, and those referred for instabilities interrupted service delivery. Since 2014, several NGOs treatment (Egypt Independent 2013, Bassiony, Salah El-Deen are providing condom promotion, HIV testing and counselling et al. 2015, Loffredo, Boulos et al. 2015, The economist 2015, and NSP for PWID in large cities (Egypt MoHP 2015). NSP was made widely available within the governorate of Minya in 2014 Zaki, Soltan et al. 2016). Low social stigma, a variety of beliefs regarding its benefits, and low prices have contributed to the to 2016 by two local NGOs, through funding from MENAHRA. widespread use of tramadol. Cannabis and alcohol are the other These programs have however been halted since mid-2016 due frequent substances used by the general population as well as to sudden governmental disapprovals (MENAHRA 2016). VCT students. Heroin and alcohol are other substances of abuse is widely available throughout the country (Egypt MoHP 2015). The country planned to launch a pilot OST program. A National reported by drug treatment centers. A PWID size estimation Task Force for implementing OST strategy was established in was conducted in 2014, using key informants in three areas of the country. It was estimated that nationally 93,314 male PWID 2013 and UNODC supported development of a detailed plan (range: 86,142 - 119,412) live in the country, which comprises and protocol for methadone and buprenorphine maintenance 0.37 per cent (range: 0.35% - 0.48%) of the male population treatment (UNODC 2015). Service providers were trained and aged 18-59 (Egypt MoHP 2014a). This is close to the previous the plan is to establish OST services in six governorates by an NGO (Egypt MoHP 2014b). However, final official approval for estimation provided in year 2010. A variety of drug treatment services including inpatient and outpatient detoxification and the establishment of OST centers has yet to be provided by the residential rehabilitation is available, mainly in large cities (WHO government. ART has been expanded in the recent years (Egypt 2013, Zaki, Soltan et al. 2016). MoHP 2013).

Egypt has a low HIV prevalence in the general population. Although Egypt has made progress in developing HIV prevention There are concentrated HIV epidemics among PWID and MSM. services to PWID, the coverage is low and requires further support. Although up to 2014, HIV transmission was mainly through sexual Egypt witnessed significant political unrest and deteriorating transmission (Egypt MoHP 2014b), in 2015, a report shows that security during several years. Stigma and discrimination against in men, injecting drug use predominates as HIV transmission PLHIV and key populations, and legal barriers to providing needle route, consisting 36.5% of HIV infected cases (WHO Eastern and syringes, remain obstacles to the implementation of HIV Mediterranean Region 2016). The last BBS on PWID was prevention programs (Egypt MoHP 2013, Egypt MoHP 2014b). conducted in 2010. A new BBS was planned for 2016, but no information is available. The 2010 BBS in Cairo and Alexandria indicated HIV prevalence of over 6% in both cities (FHI/Egypt MoHP 2010). Sharing injection equipment is common and high risk sexual behavior is not rare







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easily available through its neighbouring country, Afghanistan, and the large drug market still exists. Opioids, including opium and heroin are the main drugs of use and dependence. Although misuse of prescription opioids is highly common, it only constitutes a small proportion of the treatment demand for drug dependence. Methamphetamine and cannabis are other drugs of use in Iran (Amin-Esmaeili, Rahimi-Movaghar et al. 2016). Iran is implementing its fourth HIV/AIDS National Strategic Plan According to the 2011 national household survey, past 12-month prevalence of illicit drug use and 12-month prevalence of illicit drug use disorder among the population aged 15 to 64 was 6.2% and 2.1%, respectively (Rahimi-Movaghar, Sharifi et al. 2014, use has contributed significantly to infectious disease burden, including HIV and viral hepatitis, during the past decade (Rahimi-Movaghar, Amin-Esmaeili et al. 2012, Malekinejad, Navadeh et al. 2015). These patterns have resulted in an increase in the burden of drug use disorders in the country since 1990 (Naghavi, Shahraz et al. 2014). In 2013, it was estimated that there are (mainly heroin) (>90%), followed by methamphetamine (21%), are the main drugs of injection in the country (Haghdoost and Danesh 2014). Two repeated large IBBS studies were conducted drug use is around 18 and mean age of drug injection is 26.

Drug treatment centers are well-developed and widely available all over the country. There are a range of services that include outpatient OST, inpatient and residential, psychosocial interventions, and self-help groups. The services are provided by private and public sectors, as well as NGOs (Iran Drug Control Headquarters 2014).

In Iran, HIV prevalence has remained low in the general population. However, concentrated HIV epidemics among PWID have been constantly found and reported. There are also reports of high HIV prevalence among non-injecting drug users. Sexual partners of PWID, FSWs, and street children are other at-risk groups. Out of the cumulative HIV identified cases, about 80% of men and 8% of women have been infected through unsafe injection (Iran MoH 2016a). HIV prevalence among PWID has been reported in eight studies since 2010 and the results range from 4.2% (Iran MoH 2012) to 15.1% (Haghdoost, Osouli M et al. 2012). HCV prevalence among PWID has been studied in seven studies and the results of 20.3% (Ziaee, Sharifzadeh et al. 2014) to 56% prevalence (Ramezani, Amirmoezi et al. 2014) have been reported. HBV prevalence has been studied in five studies and the results of 1.6% (Iran MoH 2012) to 8.5% prevalence (Ziaee, Sharifzadeh et al. 2014) have been reported. A systematic review

Iran had a long history of opium production. Although opium from Iran showed that pooled HCV prevalence among PWUD, production has been eradicated for decades in Iran, opioids are with and without an injection history, was 45% (95% Cl 37–54%) and 8% (95% CI 4-13%) respectively (Malekinejad, Navadeh et al. 2015). Information on risk behaviors of PWID is available from seven studies since 2010. The results show that although HIV knowledge is relatively good, unsafe injection is not rare and unprotected sex is relatively common.

> "2015-2019". The plan follows five main goals, one of which is maintaining prevalence of HIV infection at a level of under 15% among PWID.

Amin-Esmaeili, Rahimi-Movaghar et al. 2016). Injecting drug Iran has a large OST program, with more than 7,000 centers and several prisons providing OST to more than 650,000 opioid dependents (Iran MoH 2016b), OST is mainly based on MMT, but a large group are receiving Buprenorphine Maintenance Treatment (BMT) and opium tincture. However, a small proportion of these beneficiaries are PWI (Shekarchizadeh, Ekhtiari et al. 2012, Iran MoH 2015). The main challenges are supervising the large 208,000 PWID in Iran (Nikfarjam, Shokoohi et al. 2016). Opioids number of centers, ensuring the quality of services, and providing free of charge treatment services to those who cannot afford treatment costs, especially PWID, Iran has also 580 drop-in and triangular centers that provide needles and syringes, condoms in 2010 (N=2,546) (Haghdoost, Osouli M et al. 2012) and 2014 and other health services to PWID. More than 10 million syringes (N=2,400) (Iran-8) on PWID. They showed that PWID are mainly were distributed in 2014. The coverage is moderate (Haghdoost men, middle-aged, mostly single or divorced, with secondary and Danesh 2014, Iran MoH 2015). ART is widely available in or high-school education. Most have temporary jobs and about the country. More than 1,000 centers are providing HCT all over 80% have history of incarceration in their lifetime. Mean age of the country and more than 110,000 clients received the voluntary service in 2014.

> Although Iran has a large HIV prevention, treatment and care program, and harm reduction policy has been well accepted, several barriers impede further expansion and effectiveness of interventions. Stigma against PWID; low availability of good quality, low cost drug treatment facilities: shifting pattern of drug use in the country; low HIV knowledge among youth; and low financial resources are the main barriers. Treatment services need to be tailored for PWID with very low socio-economic situations and high risky behaviors, and the coverage of harm reduction services need to increase. Safe sex training is the other intervention that is needed to address various key populations.

IRAQ

Iraq has gone through several adversities in the last decades, resulting in a profound negative impact on public health. Hundreds of thousands of civilians have been killed or injured, and around 5 million have been displaced. The health-supporting infrastructure of the country has also been damaged (Levy and Sidel 2013). Prescription drugs, alcohol, and cannabis are main drugs of use in Iraq. Clinicians have reported new patterns of substance use with the dominance of tramadol, opium, and amphetamines emerging (Al-Hemiary, Al-Diwan et al. 2014, Irag MoH 2016). There has been growing evidence of increasing abuse of drugs (AI-Diwan, AI-Hemiary et al. 2015, Iraq MoH 2016), however, no information is available on the extent of injecting drug use in the country. There are drug treatment facilities in five hospitals with a total number of 40 beds in the four cities of Baghdad, Basra, Erbil and Sulaymaniyah, providing both inpatient and outpatient services (Irag MoH 2016).

HIV prevalence is low in Iraq. There is no report on the magnitude of HIV risk among key populations, and the country has not provided any updated narrative report on monitoring of HIV/AIDS. No IBBS study has been conducted on PWID. Heterosexual transmission accounts for more than half of the new HIV cases (WHO Eastern Mediterranean Region 2016), and no case of HIV transmission due to injection has been reported (Iraq MoH 2012).

There is no evidence of renewing the National AIDS Strategy in Iraq. No surveillance and preventive measures exist for key populations. OST and NSP do not exist. VCT is widely available in the country and is providing services to a growing number of clients. ART is also available (Irag MoH 2012). The country's response to HIV is hindered by the prolonging wars and consequent internal instability. HIV does not seem to be a priority for the health sector, and the country has not received major support from external bodies for its HIV program. There is a shortage in access to medications and health services for many disorders, and the role of NGOs is very limited (Irag MoH 2012, Iraq MoH 2016).





There is no new report on the extent and pattern of drug use in Jordan. Heroin is the main drug of injection (Jordan MoH 2012). Out of 2.278 PWUD admitted to the two main drug treatment centers in Amman in 2012 and 2013, 22.5% used heroin, from which 68.6% injected (Jordan MoH 2014). There has been a report of significant rise in treatment demand due to dependence on cannabis and psychotropic drugs, and a decrease in injecting drug use in last years (Jordan MoH 2012). There are two large drug treatment centers in Amman - the Ministry of Health National Centre for Rehabilitation of Addicts (NCRA) and the Public Security Department- Substance Abuse Treatment Centre (SATC) - which provide inpatient medical detoxification and outpatient medical services. The services are largely centralized. There is also compulsory treatment for people with drug addiction (WHO 2013).

Jordan has a low prevalence HIV epidemic, both among the general population and among the key populations of PWID, FSWs and MSM (Jordan MoH 2014). From the newly identified HIV cases in 2012 and 2013 (N=35), 6% were PWID (Jordan MoH 2014). Sexual contact is still the main mode of HIV transmission. and accounts for 71% of HIV/AIDS cases identified in 2012-2013 (Jordan MoH 2014). All those admitted to the main drug treatment centers are tested for transmissible diseases. The total number of tests carried out in 2012 and 2013 was 1,943 tests. All were negative for HIV, 0.46% tested positive for HBV, and 2.9% tested positive for HCV (Jordan MoH 2014). Moreover, HIV/AIDS is rare among prisoners (Heijnen, Mumtaz et al. 2016). The last bio-behavioral survey among PWID conducted in 2008 (Jordan MoH 2012), and a 2011 KAP study on PWID, showed that unsafe injection and unsafe sex are frequent risk behaviors, and HIV knowledge is poor among PWID (Shahroury 2011).

The HIV response in Jordan is based on its second NASP (2012-2016) (Jordan MoH 2014). PWID are identified as a key population in country's plans. Two outreach programs, including the first NSP in the country, were initiated and implemented by national NGOs in the five main governorates of Amman, Zarga, Irbid, Jerash and Al Mafrag through support from MENAHRA (Jordan MoH 2014). NSP was expanded to cover around 10 governorates in 2015. Several hundred PWID were reached, and more than 100,000 syringes were distributed in 2016 (MENAHRA 2015b, 2016). There is no OST available in the country. The Jordanian Ministry of Health has reported that there is strong resistance to introducing drug substitution treatment, especially by the Anti-Narcotics Department (Jordan MoH 2014). Condom promotion and distribution, HTC, stigma and discrimination reduction, and targeted information on risk reduction and HIV education are included in HIV prevention policies (Jordan MoH 2013). VCT centers are distributed all over the country. One NGO is specifically providing VCT to PWID for HIV, HCV and HBV as part of its program with MENAHRA (MENAHRA 2015b, 2016). ART is mainly available in Amman (Jordan MoH 2014).

Jordan faces new challenges since 2011, after the Syrian crisis began. Until February 2017, there has been an influx of more than 656,000 Syrian refugees into Jordan (UNHCR 2017), which resulted in a shift of priorities away from HIV. Prevention services have been highly reliant on funding from Round 6 of GFATM, and in Round 11, only a "Continuity of Service" application was approved. Overall, limited harm reduction interventions are in place and the number and capacity of NGOs are limited. However, the provision of NSP all over the country through the outreach programs detailed above, can be regarded as an important achievement.



Kuwait is a small high-income country. Cannabis, followed by stimulants and cocaine, are the most common drugs used by university students (Bajwa, Al-Turki et al. 2013). However, for those coming for treatment, heroin and methamphetamine are the main drugs of abuse (Kuwait MoH 2015). The Kuwait center for Drug and Alcohol Rehabilitation services is the main addiction treatment body and provides a variety of treatment services (Fattahova 2015). The center reports the existence of 6,000-7,000 active files of PWUD, of which approximately 60% are PWID. Experts from the center have estimated that the actual total number of PWUD may be three times higher than those coming for treatment; hence the estimation is 20,000 for the number of PWUD, and 12,000 for the number of PWID (Kuwait MoH 2015). According to the observation of experts, injecting drug use is increasing in Kuwait (Kuwait MoH 2015).

Kuwait has a low HIV prevalence among the general population. It seems that the main route of HIV transmission is heterosexual exposure (WHO Eastern Mediterranean Region 2016). No IBBS study has been conducted among key populations; however, mass HIV testing is being carried out, especially for expatriates. From 2012 to 2014, HIV testing for 1,740 injecting and non-injecting PWUD in the treatment center, no results were positive (Kuwait MoH 2015). Experts report that as much as 80% of PWID share injection equipment; high risk sexual behavior of stimulant users might contribute to HIV transmission as well. Moreover, Hepatitis C is common among PWID (Kuwait MoH 2015).

Kuwait has no specific AIDS Strategic Plan. The Kuwaiti National AIDS Control Committee was reactivated in 2013; however, no HIV prevention interventions for key populations exist. OST with buprenorphine had been planned for and initiated in 2015. Currently, at the Kuwait center for Drug and Alcohol Rehabilitation services, 135 patients are receiving BMT (AI-Zayed A. 2017). NSP is unavailable and there is no plan for endorsing it for the future. VCT does not exist, but ART is available and coverage is high for Kuwaitis (Kuwait MoH 2015).

Lack of a NASP, limited financial and human resources, absence of active NGOs, lack of IBBS, and scarcity of information are the main barriers towards effective HIV prevention (Kuwait MoH 2015).

Lebanon has been significantly affected by the civil war of Syria. It is estimated that around 1.5 million Syrian refugees are in Lebanon, and create new security and health challenges (Lebanon MoPH 2016).

LEBANON

Cannabis and heroin is produced in East Lebanon. However, limited updated information is available on the drug use scene of Lebanon. The MoPH, in its new substance use response strategic plan, used the 1999-2001 survey data, indicating that cannabis (hashish/marijuana), is the most commonly used illicit drug among both high school and university students (Lebanon MoPH, Lebanon Ministry of Education and Higher Education et al. 2016). A large survey on university students in 2012 indicated that cannabis, followed by amphetamine-type stimulants and opioids are the most common drugs of use (Salameh, Rachidi et al. 2015). Nevertheless, it was reported that heroin (31%), followed by cocaine (20%) and cannabis (17%) were the most commonly used drugs in those seeking treatment for addiction in 2012 (El-Khoury, Abbas et al. 2016). In addition, around 2,000 PWUD are convicted yearly, and cannabis, cocaine and heroin are the drugs mostly used by this population (El-Khoury, Abbas et al. 2016). In 2010, it was estimated that patients suffering from substance use disorders ranged from 10.000 to 15.000. with heroin users accounting for 59% (Lebanon MoPH 2012b). A report from 1,373 admissions in 2012-2013 in eight Lebanese rehabilitation and detoxification centres indicated that around 70% of those in treatment were PWID (Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016). Heroin is the main drug of injection, followed by cocaine (MENAHRA 2015a). A population size estimation conducted in 2015 confirmed the previous estimation of 2,000 to 4,000 (MENAHRA 2015a). Most PWID are single, with low levels of education (MENAHRA 2015a, Merabi, Naja et al. 2016). A variety of residential, inpatient and outpatient detoxification and rehabilitation services are operating in the country and are mainly provided by non-governmental sectors.

In Lebanon, HIV prevalence among the general population has remained low, and HIV transmission has remained the same for the past eight years. MSM, and to lesser degree FSWs, PWID, and prisoners are regarded as the main key populations. Less than 3% of the HIV epidemic is attributed to injecting drug use (Lebanon MoPH 2016). A BBS study conducted in 2014-2015 in the Greater Beirut area among current PWID reported an HIV prevalence of 0.26% and an HCV prevalence of 27.6% (MENAHRA 2015a). Risk behaviors are not rare among PWID. The country has launched the 2016-2020 NASP. HIV prevention for PWID is included in the program and includes OST and NSP. BMT was initiated in January 2012. The country reports that by end 2016, the number of people who had received buprenorphine was over 1,700; from which 6% were female. An evaluation showed that 71% of those enrolled were still in treatment at six months follow-up. Nevertheless, access to BMT is centralized and expensive; it is provided under the strict supervision of a psychiatrist (El-Khoury, Abbas et al. 2016, Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016, Abbas 2017). The country has planned for initiating a pilot project on methadone maintenance for 2019 (Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016). Outreach programs distributing needles and syringes, as well as safe injecting materials and condoms were initiated many years ago. SIDC and Skoun are the main NGOs with outreach programs for PWID. In the recent years, about 200 PWIDs were reached and about 50,000 syringes were distributed, annually, by support received from MENAHRA. A national Hepatitis B vaccination campaign was initiated in 2015, and continues to run to ensure provision of Hepatitis B vaccines as well as Hepatitis B and C testing for PWID. In addition, overdose prevention efforts included advocacy for policy change which required hospitals receiving overdose cases to report to the police; this policy was removed in order to allow encourage PWUD to seek help in cases of overdose (MENAHRA 2015b, 2016). One hundred HCT centers are operating throughout the country (Lebanon MoPH 2016). ART is provided in one center and PWID can also receive the treatment, if needed (Shaw, Hermez et al. 2016). NGOs are active members of the national multi-sectoral coordination body (Lebanon MoPH 2014). More than 50% of HIV programs for PWID are estimated to be provided by NGOs (Lebanon MoPH 2013). The secretariat of the regional NGO, MENAHRA, is in Lebanon; and another NGO, SIDC, is a WHO-recognized knowledge hub for harm reduction for the region.

Concerns over the political and security issues faced by the country are constantly the main priority. The country reports a lack of stable financial support and lack of effective collaboration between key stakeholders for the National AIDS Program. Insufficient skilled human resources, lack of proper mechanisms for follow-up and monitoring, and resistance from religious leaders and decision-makers are other limiting factors for expansion of harm reduction activities. A rapid scale-up of services is necessary.







In Libya, post-revolution repercussions and degrees of instability still persist. The government continuously tries to reestablish essential services (Libya National Centre for Disease Control 2015). It is for a decade that no updated information has been available on the situation of drug use; however, there are reports on large scale tramadol use in the country (UNODC 2014). The 2010 IBBS study suggested that buprenorphine is the main drug of injection, followed by heroin. PWID are typically middle-aged, single, and educated (Mirzoyan, Berendes et al. 2013). A few drug treatment facilities that were available years ago have been closed during recent years (Libya National Centre for Disease Control 2015).

In Libya, HIV prevalence among the general population is low (Daw, Shabash et al. 2014). Concentrated HIV epidemics exist among PWID and FSWs (Mirzoyan, Berendes et al. 2013, Valadez, Berendes et al. 2013). There are reports of an increasing trend of sexual transmission (Libya National Centre for Disease Control 2015). In a group of hospitalized HIV cases, 48% were PWID (Shalaka, Garred et al. 2015). HIV prevalence was quite high (87.1%) according to the 2010 IBBS study on PWID, moreover, HCV prevalence was over 90% in this study group. Sharing injecting materials is common and unsafe sex is not rare among PWID (Mirzoyan, Berendes et al. 2013).

The first National AIDS Strategy was drafted for 2012-2014 (Libya MoH 2013), but has yet to be adopted (Libya National Centre for Disease Control 2015). PWID have been recognized as a key population, and some HIV prevention strategies were envisaged for them. The strategies include HTC, STI prevention and treatment, addressing stigma, targeted information on risk reduction, and HIV education. The strategy does not include NSP and OST (Libya National Centre for Disease Control 2015). HIV testing is widely available throughout the country, however, the counselling component is lacking. Only few VCT facilities exist. ART is available in several cities and in one prison (Libya National Centre for Disease Control 2015). At the time being, NGOs are not actively involved in the field of HIV.

The HIV response has seriously been affected by political instability, and the country has suffered from a severe deterioration in basic services. Even ART services have been interrupted. Funding is low and the progress in promoting services is also slow. In addition, data management is a general challenge throughout the country (Libya National Centre for Disease Control 2015). Libya has never received resources from the Global Fund, however, in the framework of a joint project with UNODC, drug treatment facilities have supposedly been developed, NGOs have been trained, and HIV prevention for PWID has been initiated (Libya National Centre for Disease Control 2015).



Morocco continues to be the world's largest producer of cannabis resin (UNODC 2016). In Morocco, cannabis is the most common drug of use, with an estimation of over 750,000 people using cannabis. At least 20,000 Moroccans use heroin, from which two thirds inject it. There are also reports of increase in use of cocaine and opiates (UNODC 2013), with an estimation of 20,000 Moroccans using cocaine. The use of amphetamines and ecstasy are mainly seen in clubs (Toufig, El Omari et al. 2014). The average prevalence of drug use, apart from tobacco, is between 4% and 5% of the adult population, indicating a minimum of 800,000 PWUD (Toufig, El Omari et al. 2014). There are several estimations on number of PWID, ranging from 1,500 up to 18,500 (Sabir and Toufig 2014, Shaw, Hermez et al. 2016, WHO Eastern Mediterranean Region 2016); however, since1,243 PWID were tested for HIV in 2015, and 1.394 PWID received HIV prevention services in 2014, the low estimations do not seem to be correct (Morocco MoH 2015a, WHO Eastern Mediterranean Region 2016). Heroin is the most common drug of injection while cocaine is rarely injected (Morocco MoH 2014). PWID are typically men, with an average age between 36 and 39, unmarried, unemployed, and with high rates of incarceration (Morocco MoH 2012b, Morocco MoH 2014, Morocco MoH 2015b), There are two residential and several outpatient centers for drug treatment and the country has planned to increase the facilities in the upcoming years (Sabir and Toufiq 2014, Toufiq, El Omari et al. 2014).

HIV prevalence has remained low among the general population; however, there are reports of concentrated HIV epidemics among FSWs, MSM and PWID (WHO Eastern Mediterranean Region 2016). Injecting drug use contributes to less than 5% of the HIV epidemic (Morocco MoH 2015a). Several IBBS studies have been conducted in the years 2010 to 2015 in the cities of Tangier, Nador, and Tétouan (Morocco MoH 2012b, Morocco MoH 2014, Morocco MoH 2015b). HIV prevalence has been reported to range from Zero in Tangier up to 25.1% in Nador. HCV prevalence was reported to range from 45% to 79%. Although knowledge about risks of sharing behavior and unprotected sex is high, unsafe injection and unsafe sex are relatively common.

The country is implementing the 2012-2016 National AIDS Strategy. Morocco has adopted the harm reduction policy since 2008. It includes awareness-raising and education activities, promotion of care, distribution of syringes and condoms, and OST using methadone (Morocco MoH 2015a). The national strategic plan on drug use also has included the same strategies for HIV prevention among PWID (Toufiq, El Omari et al. 2014). The country has received support from the Global Fund for several rounds of funding, and HIV prevention for PWID was one of the main programs benefitting from this support (Morocco MoH 2015a). NSP sites are operational in several cities and some are providing outreach services as well. Each year, more than 200,000 needles are distributed for PWID (Morocco MoH 2015a). Several NGOs are active in this field and providing HIV prevention services. An MMT program was initiated in 2010 in the three cities of Tangier, Casablanca and Salé, and at the time being, there are seven centers providing MMT; in 2014, 628 patients were enrolled in methadone program, and the country has planned to expand this service further (Morocco MoH 2015a). HIV testing is widely available in the country; ART is also available, and the coverage has increased considerably in recent years (Morocco MoH 2015a). Arrazi hospital, which has a drug treatment center and provides MMT, also hosted a knowledge hub for promoting harm reduction in the region; the knowledge hub was involved in organizing several training workshops on harm reduction for Morocco and the sub-region up until 2014. Currently, a harm reduction training center has been created at Hasnouna, an NGO in Tangiers, with support from Drosos Foundation.

Morocco has been successful in developing its harm reduction programs; however, inadequate coordination between NGOs, and lack of human resources are the main barriers for further expansion of services. There is a need for rapid scale-up of OST and NSP in order to effectively prevent spreading HIV epidemics. OMAN

Oman is a high income country with good health infrastructure. However, updated data on the drug scene is scarce. A total number of 5,345 admitted cases has been reported by the drug treatment centers for the years 2004-2015, from which 99% were male (Ben Zaher Al Abri 2016). However, it has been reported that the number of women admissions has been increasing (Muscat Daily staff writer 2012). Opiates (69%), followed by cannabis (57%), and sedatives (36%) are the most common drugs of abuse among the treatmentseeking population. The registration data shows that 55% are PWID (Ben Zaher Al Abri 2016), and heroin and morphine are main drugs of injection (Oman MoH 2012). Oman has several inpatient and outpatient treatment facilities for drug dependence.

The HIV epidemic remains low in Oman. There are reports of unknown origin of 0.5%-0.7% HIV prevalence among PWID from 2013-2015 (WHO Eastern Mediterranean Region 2016); however, a figure of 4% HIV prevalence among registered cases has been reported by a drug treatment center (Ben Zaher Al Abri 2016). HCV prevalence among PWID has been reported to range from 24.1% to 52.2%, while HBV prevalence has been reported to be around 6%.

In the years 2005 and 2006, there were reports that the country had faced a concentrated epidemic of HIV among PWID (WHO 2007); however, no such evidence is available for the past recent years. Although PWID are unsystematically tested when arrested and when entering prisons and drug-treatment facilities (Oman MoH 2012), the results are not scientifically reported. There is no updated data on high risk behaviors of PWID. Up until the end of 2014, 4% of all Omani HIV cases that were still alive reported unsafe injection as the mode of transmission (Oman MoH 2015).





The last National AIDS Strategic Plan expired in 2011. Although several years ago there was an attempt to develop a harm reduction policy and expand HIV prevention services to PWID, it seems that no major progress has been made. There was a small outreach and NSP in Muscat (Oman MoH 2012) which seems to be inactive in recent years (Oman MoH 2014). Methadone has been used for opioid detoxification purposes and for several years now, the country has been planning the provision of OST (Oman MoH 2012, Oman MoH 2014); however, there is no report that the service has been initiated to date. It has been reported that voluntary HCT has been initiated in Muscat since 2013, and that ART has been widely available in the country for years (Oman MoH 2012).

The National AIDS Programme still faces inadequate institutional support and understaffing. The role of NGOs in the national response is limited, and stigma and discrimination are also major obstacles in providing services to key populations (Oman MoH 2012). Updated data on various aspects of injecting drug use is needed. Establishment of OST, outreach, and harm reduction interventions, as well as expansion of HCT services are necessary and should be included in the next NASP.



Pakistan is the world's sixth, and the region's first, most populated country (UN Population Division 2017). Located in the vicinity of Afghanistan and being the major southern route of drug transit, accompanied by internal production of opium, leaders to a considerable drug problem within Pakistan. According to the 2012 national survey on drug use (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013), 6% (6.7 million) of the population aged 15 to 64 have used an illicit substance during the previous year, from which 4.5 million were drug dependent. Cannabis, followed by opioids (both opiates and prescription-type), are the main drugs of use in Pakistan. It has been estimated that there are 860,000 regular heroin users and 320,000 regular opium users within the country. Methamphetamine has also emerged in the drug market. In a 2013 study, the number of PWID was estimated to be 430,000 nationwide, or 0.4% of the 15-64 years old population (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013). However, in some official documents of the Ministry of Health, which are used to report to UNAIDS (Pakistan MoH 2015a, Pakistan MoH 2015b); the dated estimation of around 100,000 is still used to report the number of PWID and utilized to estimate the number of PLHIV who inject drugs for the country. Therefore, the estimated number of PLHIV that inject drugs derived from the new figure of PWID in the country (430,000 as per the above) differs from the estimation reported by the Ministry of Health.

Main drugs of injection are heroin and prescription drugs (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013, AP Consultancies & Bridge Consultants Foundation 2014). PWID are mainly male, unmarried, in their early thirties, and have low levels of education (AP Consultancies & Bridge Consultants Foundation 2014). It is reported that 96 drug treatment centers and 34 low-threshold facilities exist throughout the country (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013); however only 13% of PWID have reported that they have received treatment during the previous year (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013).

HIV prevalence is low among general population. Pakistan has concentrated epidemics among PWID and Hijra (Transgender) Sex Workers (HSW). Route of transmission in most HIV identified cases is unknown (WHO Eastern Mediterranean Region 2016), and the contribution of unsafe injection and unprotected sexual practices to the HIV epidemic is poorly understood. In the year 2014, an IBBS study was conducted on 3,840 PWID in Punjab, which is home to more than half of the country's population. HIV prevalence was 36.8% among PWID (AP Consultancies & Bridge Consultants Foundation 2014). The round IV national IBBS study had been conducted in the year 2011 and had reported an HIV prevalence of 37.8% (Pakistan National Institute of Health 2012). There is evidence suggesting intermixing of PWID with other key populations, such as MSM, HSW and FSWs. Unsafe injection is common and unprotected sex is not rare among PWID, and HIV knowledge is relatively poor (AP Consultancies & Bridge Consultants Foundation 2014).

Pakistan is implementing its third National AIDS Strategy (PAS-III 2015-2020) (Pakistan MoH 2015b). In 2011, the Ministry of Health was dissolved at the federal level and provincial control programs were developed (Pakistan MoH 2015a). PAS-III is a consolidated program of four provincial strategies and has acknowledged PWID as a priority key population, and has envisaged harm reduction services for this group. According to this plan, in a three-phase operational program, OST will be introduced and expanded during 2015-2020. Up until the moment, an OST strategy for buprenorphine has been developed (Pakistan MoH 2015b). NSPs have expanded in recent years, with more than 7 million syringes distributed to more than 43,000 PWID in 2014 (Pakistan MoH 2015a). The number of centers providing VCT, as well as their uptake, is low. PLHIV receiving ART have increased in recent years, but the coverage remains less than 10%. NGOs have outstanding roles in HIV prevention and care among different key populations, including PWID. They also have close collaborations with Provincial AIDS Control Programs (Pakistan MoH 2015a). Pakistan has received support from the Global Fund in two rounds of funding, and the last grant included harm reduction as a main strategy.

Effective HIV prevention among PWID is impeded by several factors. Funds have not been sustainable and available at times; devolution of the health program has caused some gaps in continuity of activities; and HIV surveillance and data management are inadequate. Structural and cultural barriers, as well as poverty, interfere with access to prevention and care. Immediate implementation of a comprehensive package of harm reduction, which includes OST deems highly necessary for a country with this magnitude of injecting drug use and its associated harms.



PALESTINE

The Palestinian population has been facing an on-going struggle for decades. This has resulted in serious barriers to the access of basic health services (Horton 2012). The International Narcotics Control Board (INCB) reports that there are alarmingly increasing drug trafficking and abuse rates in Palestine (INCB 2016). Alcohol, followed by cannabis, cocaine, and ecstasy are the main substances of use among Palestinian youth (Council of The European Union 2012, Massad, Shaheen et al. 2016). There are new reports on common use and large seizures of Tramadol, and an increase in consumption of heroin (Council of The European Union 2016, GINAD 2017). Cannabis is produced in areas of Palestine and Israel, and is easily available (GINAD 2017). Drug use is attached to many crime cases presented to the courts (Council of The European Union 2012, GINAD 2017). In 2012, it was estimated that there were 5.000 PWID in Palestine (WHO Eastern Mediterranean Region 2016). An IBBS on PWID was conducted in West Bank in 2013 and showed that most PWID were married and had low levels of education. Heroin was the most popular drug of injection, followed by cocaine (Jwehan, AbuRabie et al. 2014). NGOs are the main providers of treatment and rehabilitation (Council of The European Union 2012).

Palestine has a low HIV prevalence among the general population. The main transmission route is through heterosexual relations. From 1988 to 2014, 3.6% of HIV identified cases were attributed to injecting drug use (Palestine MoH 2015). In the 2013 IBBS conducted in the West Bank, there were no HIV positive cases among 288 PWID; however, hepatitis C infection had been common among the group, and high risk behaviors were not rare (Jwehan, AbuRabie et al. 2014).

Palestine is implementing the 2014-2018 National AIDS Strategic Plan. PWID, as the main key population, are included in the plan, and a variety of harm reduction strategies are envisaged (Occupied Palestinian Territory MoH 2014, WHO 2016). The Global Fund has provided funding support through its 7th Round for HIV prevention among PWID (UNDP 2015). It has been reported that a pilot MMT program was initiated in 2014 in the West Bank. In 2015, 52 cases were under MMT treatment at the center (Harm Reduction International 2016, National Advocates for Pregnant Women 2016). NSPs exist, but the coverage is low. Around 45% reported receiving sterile injecting equipment and 29% receiving free condoms from an NGO in the past 12 months (Jwehan, AbuRabie et al. 2014). VCT is widely available in all districts and two centers provide ART inside Palestine (WHO 2016).

HIV is not recognized as a priority issue by some officials. The unstable political situation and limited financial resources, as well as existing social stigma, are the main barriers affecting the full implementation of the AIDS strategy (Occupied Palestinian Territory MoH 2014). A comprehensive plan for advocacy and the close collaboration of civil society organizations with the government are necessary.



Qatar is a small high-income country with a high rate of migrating populations. There is very scarce data available on the drug scene; however, it seems that the majority of substancerelated mortality and burden are attributed to opioids (Health Grove by Graphiq 2017). There is no information on injecting drug use. The Social Rehabilitation Centre provides inpatient detoxification and psycho-social aftercare plans for drug addicts (Olayiwola 2013).

Qatar has a low HIV prevalence among the general population. The dominant mode of transmission is heterosexual, followed by same-sex relations among MSM (Qatar MoH 2013). In 2015, no newly identified cases of HIV were attributed to injecting drug use (WHO Eastern Mediterranean Region 2016). It has been reported that more than half a million HIV tests are carried out every year (Qatar MoH 2013); however, no IBBS has been conducted for key populations so far (WHO Eastern Mediterranean Region 2016).

Qatar has no specific National HIV Strategic Plan, but HIV is included in the 2011-2016 National Health Strategy. One center is providing voluntary HCT, as well as ART, for Qataris and non-Qataris (Qatar MoH 2013). No specific HIV prevention is planned for PWID, and there are no NGOs involved in HIV prevention and care programs for key populations. Overall, HIV does not seem to be a high-priority issue in Qatar.



SAUDI ARABIA

Saudi Arabia is a high income country. Amphetamines and cannabis are the main drugs of use among the general population (WHO 2013). Cannabis use is more frequent in youth, followed by inhalants, and amphetamines (Al-Musa and Al-Montashri 2016). There is no updated data available on the extent and nature of drug use, as well as injecting drug use, from Saudi Arabia. Three hospitals and several residential facilities are available for treating drug addiction (Alshomrani 2016, Saudi Arabia National Committee for Narcotics Control (NCNC) 2016).

HIV prevalence is low in Saudi Arabia and yet, no key populations have been recognized. STI patients, prisoners, and PWID at rehabilitation centers are tested routinely for HIV. The highest ever-reported prevalence (9.8%) was among a large sample of PWID from 2006-2012; moreover, HCV prevalence was 77.8% among the same sample (Alshomrani 2015). Although the report was not replicated, the figures are alarming. A report from 2010 shows that injecting drug use contributed to 5.7% of the HIV epidemic in Saudi Arabia (WHO Eastern Mediterranean Region 2011). No IBBS study has been carried out on PWID and no data is available on their high risk behaviors.

Saudi Arabia is implementing its 2013-2017 National AIDS Strategy. The main focus of the strategy is HIV screening and counselling, as well as treatment and care. The harm reduction policy is not adopted, and the country does not have OST or NSP services. A VCT center exists in every region, usually attached to the main hospital, and ART is also available. NGOs and Civil Society Organizations (CSOs) have relatively good contribution to IEC prevention programs and HCT, and are running half-way houses for drug treatment and support (Saudi Arabia MoH).

The country has a conservative approach towards HIV prevention. Sex work and homosexual behavior is highly stigmatized. Reaching illegal migrants and key populations, and engaging them in HIV prevention interventions, is a challenge. HIV surveillance needs to be improved, and safe sexuality education needs to be expanded. Although it seems that the drug problem is of a significant size, and PWUD are accessible through drug treatment centers, reliable data is inadequate and is not available for effective policy making.

SYRIA

Syria faces one of the biggest human tragedies of the past decade. The crisis has left no aspect of lives and no Syrian family or person unaffected. Hundreds of thousands have been killed and 1.5 million people are injured. The lack of access to health care, and breakdown of basic sanitation and public health infrastructure have greatly increased health needs of Syrians. Many health care facilities have been attacked, and medical staff have been killed. The long-term social, economic and health consequences that the country faces are incalculable. (Taleb, Bahelah et al. 2015, Editorial 2016, WHO Syrian Arab Republic 2016).

Most information about the drug/HIV situation from Syria is dated. In 2011, UNODC reported that heroin and prescription opioids were the primary substances of use by 95% of patients seeking treatment. Sedatives and cocaine are other drugs used by PWUD seeking treatment (UNODC 2011). Heroin is also the main drug of injection, followed by cocaine (Kobeissi 2014). The main drug-rehabilitation center was located in Damascus, with smaller ones in Homs and two private psychiatric hospitals in Damascus (Syria MOH 2012).

Svria has had a low prevalence HIV epidemic (Svria MoH 2012). Heterosexual relationships, followed by same-sex relations among MSM are the main routes of transmission (WHO Eastern Mediterranean Region 2016). Injecting drug use had contributed to 5% of identified HIV cases up until June 2010 (Syria MoH 2012). In 2011, no cases among PWID were reported among newly identified HIV cases (Bozicevic, Riedner et al. 2014). Previously, an IBBS had been conducted on PWUD in 2006 in Greater Damascus. In spite of the civil war, the Global Fund supported an IBBS that was conducted in four cities in 2013-2014 for key populations, and has reported low HIV prevalence among all groups. The study included 394 PWID, and all tested negative for HIV. However, high risk sexual, as well as syringe-sharing behavior was guite common; 19.5% had shared syringes in their last injection, and 93.9% had not used condoms during their last sexual encounter. Moreover, HIV knowledge was not sufficient among this population (Kobeissi 2014).

Syria has not updated its last National AIDS Strategy (2011-2015). The strategy includes important harm reduction programs, such as NSP; however, it has not been implemented yet (WHO 2013). The funding for the AIDS program was mainly focused on HIV surveillance and treatment (Syria MoH 2012). Syria received a grant from the Global Fund for HIV prevention in Round 10, and the plan included new harm reduction services for PWID. It consisted of extensive sensitization and advocacy for harm reduction, as well as OST: capacity building for drug-treatment professionals and NGOs; recruitment and training of peer outreach workers; as well as implementation of NSP pilot services and condom distribution for key populations (Syria CCM 2011). Few NGOs were active in HIV prevention and activities to strengthen their capacities and efforts had been planned. Currently, in addition to the overall low HIV prevalence, stigma and discrimination attached to HIV/AIDS and key populations; the civil war and interruption of health services are the main barriers for any type of planning for harm reduction in Syria.

TUNISIA

Alcohol, psychotropic drugs, and cannabis, followed by cocaine, are the most common drugs of use among youth (Aounallah–Skhiri, Zalila et al. 2014, Tunisia MoH and Pompidou Group 2014). In recent years, buprenorphine, alcohol, and psychotropic drugs have been the main drugs of abuse among those coming for treatment (Aounallah – Skhiri, Zalila et al. 2014, Sellami, Messedi et al. 2016). Three estimations of 9,500, 11,000, and 20,000 exist for the number of PWID (Tunisia MoPH 2014, GINAD 2016, Shaw, Hermez et al. 2016). Few inpatient and outpatient detoxification facilities exist in Tunisia (Aounallah–Skhiri, Zalila et al. 2014, Tunisia MoPH 2014).

HIV prevalence among the general population remains low. Concentrated HIV epidemics have consistently been reported among MSM (Tunisia MoH 2015). PWID are also the main key population. In 2014, an IBBS in two regions of the country revealed an HIV prevalence of 3.9% among PWID (Bouarrouj 2015). While HIV transmission through injecting drug use was relatively high at the beginning of the epidemic, since 1996, the main HIV transmission route has been heterosexual. Injecting drug use accounts for 21.1% of the identified HIV cases (WHO Eastern Mediterranean Region 2016), and risky behaviors such as unsafe injection and unsafe sex are not rare (Tunisia MoPH 2014, Bouarrouj 2015).

The eighth National AIDS Strategy (2015-2018) has adopted a comprehensive plan for HIV prevention, treatment, and care (Tunisia MoH 2015). HIV harm reduction programs for PWID include OST and NSP. Tunisia has received financial resources from the Global Fund through the Round 6 country grant, an extension for the years 2013-2015, and through Global Fund support to MENAHRA. Although NSPs have been implemented for several years, the number of syringes distributed and the coverage remain low (Tunisia MoPH 2014). OST is unauthorized although is included in the national AIDS strategy (Tunisia MoPH 2014). VCT centers are widely distributed throughout the country and ART is provided through four centers (Tunisia MoPH 2014).

Few NGOs are providing HIV prevention services to key populations, including PWID, but their capacity is low. Human and financial resources are inadequate and political support is insufficient. HIV has remained a low priority issue, and social stigma is significant.



Yemen has a high level of poverty, and is one of the least developed countries of the region. Internal conflicts, which began in 2011 and have further intensified since 2015, have had serious negative impacts on many health policies and services. There is limited information regarding drug use in the country. Khat and prescription drugs, such as tramadol and alprazolam and opioid analgesics, seem to be the main drugs of use (Al-Mugahed 2008, El-Zaemey, Heyworth et al. 2014, El-Menyar, Mekkodathil et al. 2015, Abood and Wazaify 2016).

HIV prevalence is low among the general population in Yemen; however, there is a concentrated HIV epidemic among MSM (Yemen MoPH & Population 2014). Injecting drug use had accounted for 1% of HIV cases in 2009-2011 (Yemen MoPH & Population 2012). No information is available on size, HIV prevalence and risk behaviors of PWID.

UNITED ARAB EMIRATES

The United Arab Emirates is a high-income country with adequate health infrastructure. The UAE has reported an increase in drug treatment demand in the recent years. Most of the data on patterns of drug use and addiction come from the National Rehabilitation Center (NRC) in Abu Dhabi, which is the only specialized addiction treatment center in the country. The number of patients seeking treatment has increased from 433 in 2009 to 1,633 in 2014 (Abdelgawad 2014). Alcohol and opioids appear to be the primary drugs of use among those seeking treatment. The use of prescription opioids and tranquilizers is higher among the youngest age group (tramadol being the primary drug of use), and illicit opioids like heroin is more common among older ages (Alblooshi, Hulse et al. 2016). Heroin is the main drug of injection; however, injecting drug use is rare among those referred for treatment (United Arab Emirates MoH 2014).

The UAE has a low prevalence HIV epidemic (United Arab Emirates MoH 2014). There is no special HIV sero-surveillance study, and there are no reliable estimates of HIV rates among key populations (United Arab Emirates MoH 2014). PWID are tested for HIV when arrested by the police, or upon admission to prisons or drug-treatment facilities; however, the results are not available. So far, only few HIV cases among PWID have been identified (United Arab Emirates MoH 2014).

There is no approved National AIDS Plan and the organizational resources are inadequate. HIV is not a priority for the Ministry of Health and other related organizations. The country's HIV response has remained scattered (United Arab Emirates MoH 2014). Voluntary counselling and testing services are not available in the UAE (United Arab Emirates MoH 2014), however, ART is available throughout the country. Some HIV prevention services for PWID exist in the NRC, and these include screening for HIV, HCV and HBV, as well as OST using buprenorphine. BMT was initiated in 2012 in the NRC, and currently, there are 87 patients receiving it (Elkashef 2017). No NSPs are available in the country (United Arab Emirates MoH 2014). Moreover, no specific improvement has occurred in understanding the extent of the drug problem, and in development of HIV prevention policies and services during recent years.

The country's most recent National AIDS Strategy covers 2009 to 2015 (Yemen MoPH & Population 2014), and mainly focuses on health care and treatment services for PLHIV. Yemen recognizes MSM and FSWs as key populations, but PWID are not identified as a priority population for HIV prevention, and OST and NSP services do not exist in the country. However, coverage of VCT and ART has been increased in recent years.

In recent years, the country's response to HIV has been affected by several factors. Civil and political unrests have hindered the integrity of health services, and funding from the Global Fund has seized to continue. Institutional capacity is low and HIV prevention among key populations is inadequate (Yemen MoPH & Population 2014). No major studies, including IBBS, have been conducted on PWUD, and the nature and extent of injecting drug use are not known.

Drug use: extent and patterns

It is estimated that worldwide. 255 million people have used illicit drugs in the year 2015, which is 5.3% of people aged 15 to 64 (UNODC 2017).

In countries of the MENA region, the data on drug use patterns is mainly based on the observations and opinions of experts and UNODC reports a constantly increasing number of PWUD and authorities. In four countries, national surveys have been carried PWID in the world in recent years (UNODC 2017). Since 2010, out on drug use and/or drug use disorders since 2010. These Afghanistan, Algeria, Iraq, Morocco, and Palestine have reported countries include Afghanistan (Cottler, Alinkya et al. 2014), Algeria an increase in drug use. Meanwhile, Egypt and Libya have (Abdennouri 2014), Iran (Amin-Esmaeili, Rahimi-Movaghar et al. reported an increase in tramadol use. 2016, Nikfarjam, Shokoohi et al. 2016), and Pakistan (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013). In Globally, it is estimated that around 30 million people suffer from Tunisia, a national survey was carried out on the youth for this drug use disorder. Opioids and cannabis are the most common purpose. UNODC also provides some information on the extent use disorders, worldwide (UNODC 2017). Illicit drug dependence and patterns of drug use in its annual world drug reports. The directly accounts for 0.8% of global burden of diseases. Worldwide, 2016 World Drug Report (UNODC 2016) was used for this review. more people are dependent on opioids and amphetamines than The UNODC website also provides an interactive map on use of other drugs (Degenhardt, Whiteford et al. 2013). each class of drugs (UNODC 2016). However, only updated data from five countries (Algeria, Iran, Morocco, Pakistan, and Tunisia) are included on this website.

Updated data on main drugs of use among the general population was found from all countries, except the three countries of Bahrain, Libya, and Oman. In 11 countries, cannabis is the most common drug used by the general population. However, opioids in Afghanistan and Iran, tramadol in Egypt, other prescription drugs in Iraq and Tunisia, and khat in Yemen have been reported as the most common drugs used. In Saudi Arabia, both amphetamine

Injecting drug use

Globally, injecting drug use constitutes a considerable burden of drug use, and has contributed significantly to the burden of HIV and Hepatitis C (Degenhardt, Whiteford et al. 2013). PWID have an elevated risk of death, with overdose and AIDS as the primary causes (Mathers, Degenhardt et al. 2013).

Almost 12 million people worldwide injected drugs in 2015 (UNODC 2017). In the MENA region, estimations on the

Table 2 Average estimates for the size of people who inject drugs

Country	Population aged 15-64 ¹	PWID per 1000 Population aged 15-64 ²	Estimated midpoint number of PWID ²	
Afghanistan	17,398,000	1.15	20,000	
Algeria	25,990,000	(0.81)	(21,050)	
Bahrain	1,047,000	1.91	2000	
Egypt	56,386,000	1.65	93,000	
Iran	56,428,000	3.69	208,000	
Iraq	20,382,000	(0.92)	(18,750)	
Jordan	4,609,000	(0.92)	(4,240)	
Kuwait	2,947,000	(1.19)	(3,510)	
Lebanon	3,972,000	0.81	3,200	
Libya	4,120,000	(1.65)	(6,800)	
Morocco	22,898,000	0.81	18,500	
Oman	3,454,000	(1.19)	(4,110)	
Pakistan	114,297,000	3.76	430,000	
Palestine	2,652,000	1.89	5,000	
Qatar	1,862,000	(1.19)	(2,220)	
Saudi Arabia	21,623,000	0.46	10,000	
Syria	10,881,000	0.92	10,000	
Tunisia	7,769,000	1.42	11,000	
UAE	7,775,000	(1.19)	(9,250)	
Yemen	15,283,000	(0.46)	(7,030)	
Total	401,773,000	2.21	887,000	

¹ The data is for the year 2015 (UN Population Division 2017) ² The proportions in the parentheses are estimations made according to the similarities with other countries where national estimations were available.

REGIONAL OVERVIEW



and cannabis have been used somehow equally. Other drugs of use in the region include amphetamine-type stimulants and cocaine. The details of data available on extent and patterns of drug use are presented in Table A1 and Table A2 in the Annexes.

- In the MENA, information on the extent of drug dependence is mainly based on those who come for treatment. Such information on drugs of abuse among people presenting to treatment for drug problems is available from 12 countries (Table A2). Opioids are the primary drugs of abuse in these groups of patients in most countries. Main opioids include heroin, opium, buprenorphine, and tramadol. Cannabis, amphetamines, and prescription drugs are other drugs of dependence. Drug use is associated with significant social, economic, and health consequences in the region.
- number of PWID were found for 11 out of the 20 countries. Extrapolations were made to other nine countries of the region based on similarities with the 11 countries where estimations on the number of PWID were available. The total number of PWID in the 20 countries is estimated to be around 887,000, which is 2.2
- per 1,000 in the population range of 15 to 64 years old.

Table 2 above, and the details on the year and methods of the estimations are presented in Table A3 in the Annexes. The number of PWID is estimated to be from 0.46 per 1,000 in the population aged 15-64 in Saudi Arabia, up to 3.76 per 1,000 in Pakistan, and 3.69 per 1,000 in Iran. Pakistan has the highest estimated number of PWID (430,000) in the region, followed by Iran. Although Iran and Pakistan are home to less than half of the region's population aged 15 to 64, more than two-thirds of the region's PWID reside in these two countries.

Updated information on drugs of injection is available from fifteen countries of the region. Heroin is the main drug of injection in the injected by the vast majority of PWID. Other opioids like opium, morphine, methadone, and other prescription opioids are also

The estimations for all countries of the region are provided in injected. Buprenorphine is the main drug of injection in several countries, like Libya and Tunisia; it has also been reported to be injected in Iran and Pakistan. Amphetamine-type stimulants (reported from Bahrain, Iran, and Palestine), cocaine (reported from Bahrain, Morocco, Palestine, and Syria), and prescription drugs like benzodiazepines and anti-histamines are other main drugs of injection. Details of data on drugs of injection in the countries are presented in Table A5 in the Annexes.

Data on the socio-demographic characteristics of PWID is available from 22 studies in 10 countries (Table A6). The studies provide information on 19,743 PWID; they are predominantly male, with a mean age of 30 to 40 years. Around one third are region. Heroin has been reported in 11 countries as the main drug currently married, and one- to two-thirds of participating PWID are either uneducated or have an education of less than 5 years. Moreover, more than two-thirds have a history of incarceration.

HIV epidemics in the region

Globally, there are 36.7 million PLHIV, and since 2010, there sex workers, and 4% among the general population. So far, have been no declines in new HIV infections among adults. In 2015, there were 2.1 million new HIV infections worldwide. HIV prevalence among the general population has remained low in all 20 countries of the region. UNAIDS reports that there are 230,000 (160,000-330,000) PLHIV in the Middle East and North Africa. In 2015, 21,000 (12,000-37,000) new HIV infections were reported in the region, which was relatively static in the recent years (UNAIDS 2016). In 2014, distribution of new HIV infections among key populations in the region were estimated to be 41% among clients of sex workers and other sex partners of key The details on HIV identified cases and routes of transmission are populations, 28% among PWID, 18% among MSM, 9% among provided in Table A7 in the Annexes.

several countries have been affected by HIV epidemics among key populations (Table 3). Concentrated HIV epidemics have been reported among key populations as below:

- Among PWID from eight countries: Afghanistan, Egypt, Iran, Libya, Morocco, Oman, Pakistan, and Saudi Arabia.
- Among MSM from five countries: Egypt, Lebanon, Morocco, Tunisia, and Yemen.
- · Among FSWs from two countries: Libya and Morocco.

Table 3 HIV epidemics among key populations

Country	Populations with at least one reported HIV prevalence of >5%	Populations with at least one reported HIV prevalence of 3 to 5%
Afghanistan	PWID	
Algeria		
Bahrain		PWID
Egypt	PWID, MSM	
Iran	PWID, PWUD	Sexual partners of PWID, FSWs, Street children
Iraq		
Jordan		
Kuwait		
Lebanon	MSM	
Libya	PWID, FSWs	MSM
Morocco	PWID, MSM, FSWs	
Oman	PWID	
Pakistan	PWID, transgender SWs	
Palestine		
Qatar		
Saudi Arabia	PWID	
Syria		
Tunisia	MSM	PWID
UAE		
Yemen	MSM	

HIV epidemics among PWID

Table 4 HIV identified cases attributed to injecting drug use

Country	Year	PWID among HIV cases (%)	Source
Afghanistan	(2015) in men 41.3 (WHC (2014) In men 46.2 (WHC (2010) 44.4 (WHC		(WHO Eastern Mediterranean Region 2016) (WHO Eastern Mediterranean Region 2016) (WHO Eastern Mediterranean Region 2011)
Algeria	(End 2010, Cu)	2.3	(Algeria MoH 2014)
Bahrain	(Cu, in Bahrainis) (2012-13) (2010)	55.8 Less than half 37.5	(Bahrain MoH 2014) (Bahrain MoH 2014) (WHO Eastern Mediterranean Region 2011)
Egypt	(2015) (2012) (End 2010, Cu) (2010)	36.5 29 28.3 19.6	(WHO Eastern Mediterranean Region 2016) (Harm Reduction International 2014) (Egypt MoH 2012) (WHO Eastern Mediterranean Region 2011)
Iran	(End 2014, Cu) (2014) (2010)	67.2 45.5 68.6	(Iran MoH 2015) (Iran MoH 2015) (WHO Eastern Mediterranean Region 2011)
Iraq	(End 2011, Cu)	Zero ¹	(Iraq MoH 2012)
Jordan	(2015) (2013) (2012) (End 2011, Cu) (2010)	Zero 10.5 Zero 2.4 Zero	(WHO Eastern Mediterranean Region 2016) (Jordan MoH 2014) (Jordan MoH 2014) (Jordan MoH 2012) (WHO Eastern Mediterranean Region 2011)
Kuwait	(2010)	Zero	(WHO Eastern Mediterranean Region 2011)
Lebanon	(2015) (2014) (End 2013, Cu) (End 2011, In PLHIVs) (2011) (2010)	2.7 Zero 1 5.7 1 Zero	(WHO Eastern Mediterranean Region 2016) (WHO Eastern Mediterranean Region 2016) (Lebanon MoPH 2014) (Lebanon MoPH 2012a) (Lebanon MoPH 2012a) (WHO Eastern Mediterranean Region 2011)
Libya	(2013)	48 ²	(Shalaka, Garred et al. 2015)
Morocco	(End 2015, Cu) (2015) (2014) (2010)	3.3 1 4.6 1.9	(WHO Eastern Mediterranean Region 2016) (Shaw, Hermez et al. 2016) (Morocco MoH 2015a) (WHO Eastern Mediterranean Region 2011)
Oman	(End 2014, Cu) (2010)	4 0.8	(Oman MoH 2015) (WHO Eastern Mediterranean Region 2011)
Pakistan			
Palestine	(End 2014, Cu)	3.6	(Palestine MoH 2015)
Qatar	(2015) (2011-12) (2010)	Zero Zero Zero	(WHO Eastern Mediterranean Region 2016) (Qatar SCH and HPDC 2012) (WHO Eastern Mediterranean Region 2011)
Saudi Arabia	(2010)	5.7	(WHO Eastern Mediterranean Region 2011)
Syria	(2010-11) (June 2010, Cu)	Zero 4.9	(Syria MoH 2012) (Syria MoH 2012)
Tunisia	(2015, Cu)	21.1	(WHO Eastern Mediterranean Region 2016)
UAE	(2010)	4	(WHO Eastern Mediterranean Region 2011)
Yemen	(2009-2011)	1	(Yemen MoPH & Population 2012)

Cu: Cumulative.

n 2012, Iraq reported that HIV surveillance does not include PWUD or PWID.

²Data comes from a retrospective analysis of 227 HIV-related hospitalizations at Tripoli Medical Centre in 2013.

Bio-behavioral surveys among PWID

Bio-behavioral surveys (BBS) are known as the most informative studies on key populations at risk. Ten countries of the region have conducted a total of 21 BBS on PWID since 2010. These countries are (in order of most-least studies conducted):

- Iran (6 studies covering a variety of areas within the country)
- Morocco (5 studies in three areas)
- Pakistan (2 studies in various areas of the country)
- Palestine (2 studies covering several areas)
- Tunisia (2 studies in two areas)
- Afghanistan (one study covering five areas)
- Syria (one study covering three areas)
- Egypt (one study in two areas)

- Lebanon (one study in Great Beirut area)
- Libya (one study in Tripoli)

A full report was available from 18 of the BBSs and a summary report was available from one. The surveys were mainly conducted in large cities. Sample sizes varied from a group of 42 female PWID in Iran up to 4,956 PWID in Pakistan. A total number of 20,636 PWID participated in these studies, from which 364 (1.8%) were reported to be female. The studies were mainly conducted in communities, using the Respondent-Driven Sampling (RDS) method. Few studies were conducted in treatment and harm reduction centers.

UNAIDS reports that in the year 2014, 28% of the new HIV infections were reported to be among PWID (UNAIDS 2016). In review of the relevant literature, data on the contribution of injecting drug use to HIV epidemics from all countries, except Pakistan, was found (Table 4). HIV among PWID accounts for around half of the HIV cases in Afghanistan, Bahrain, Iran, and Libya. PWID have also highly contributed to HIV epidemics in Equpt and Tunisia. Irag has reported that HIV surveillance does not include PWUD or PWID.

Eight countries have reported an HIV prevalence of more than 5% in at least one group of PWID. These countries are: Afghanistan, Egypt, Iran, Libya, Morocco, Oman, Pakistan, and Saudi Arabia.

The definition used for PWID within the studies varied from ever demographic characteristics of respondents, patterns of drug injected abusive drugs during a lifetime to injecting during the last use and injecting drug use, assessments on unsafe injection and month. In four studies, the intention was to design a nationally representative sampling. In others, the sample was recruited either in several cities or from the capital city. All studies - with available details - included HIV testing and confirmatory testing elements. The majority of studies included assessments of socio-

unsafe sex, as well as HIV knowledge and service use. However, questions were not consistent across studies and the details provided in the reports varied considerably. Nevertheless, the reports were the most useful reports for this review.

Table 5 Bio-behavioral surveys on PWID conducted since 2010

Country	Study year	Place	Sample	Female sample	Method	Report available ¹	Source
Afghanistan	2012	Kabul, Herat, Mazar, Jalalabad & Charikar	1,163 PWID (injected in L3M)	?	Community, RDS	Yes	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain							
Egypt	2010	Cairo & Alexandria	560 PWID	Zero	RDS	No	(FHI/Egypt MoHP 2010)
	2014 (IBBS III)	10 cities	2,399 PWID (injection in L12M, >18)	58	DICs and outreaches, treatment centers	Yes	(Haghdoost and Danesh 2014)
	2013	6 cities	420 PWID (injection in L6M, >18)	11	DICs	Yes	(Radfar and Noroozi 2013)
Iran	2012	Karaj, Isfahan, Gorgan	192 PWID (injected in L12M, >18 and have a sexual partner)	9	DICs and DTCs	Yes	(Iran MoH 2012)
	2010	Tehran, Mashad, Shiraz	226 PWID (injection in L12M, >18)	_	DICs	Yes	(Alipour, Haghdoost et al. 2013)
	2010	Tehran, Mashad, Shiraz	42 PWID (injection in lifetime)	42	Sex partners of male IDUs recruited in DICs	Yes	(Alipour, Haghdoost et al. 2013)
	2010 (BBS II)	10 provinces	2,546 PWID (injection in L12M, >18)	66	DICs and outreaches, treatment centers	Yes	(Haghdoost, Osouli M et al. 2012)
Iraq							
Jordan							
Kuwait							
Lebanon	2014-15	Greater Beirut area	392 PWID (injection in LM)	17	Community, RDS	Yes	(MENAHRA 2015a)
Libya	2010	Tripoli	328 PWID (injection in LM)	5	Community, RDS	Yes	(Mirzoyan, Berendes et al. 2013)
	2015	Nador	202 PWID (injection in L6M)	5	Community, RDS	Yes	(Morocco MoH 2015b)
	2015	Tangier	114 PWID (injection in L6M)	2	Community, RDS	Yes	(Morocco MoH 2015b)
Morocco	2013- 2014	Tétouan	221 PWID (injection in L6M)	7	Community, RDS	Yes	(Morocco MoH 2014)
	2011- 2012	Nador	277 PWID (injection in L6M)	4	Community, RDS	Yes	(Morocco MoH 2012b)
	2010-11	Tangier	268 PWID (injection in L6M)	8	Community, RDS	Yes	(Morocco MoH 2012b)
Oman							
Dekister	2014	Punjab	3,840 PWID (regular injection in L6M, >18)	87	Community, multistage cluster sampling	Yes	(AP Consultancies & Bridge Consultants Foundation 2014)
Pakistan	2011 (IBBS 4)	16 cities	4,956 PWID (regular injection in L6M, >18)	39	Community, multistage cluster sampling	Yes	(Pakistan National Institute of Health 2012)
Palestine	2013	Ramallah, Hebron, and Bethlehem governor- ates	288 PWID	1	Time location sampling	Yes	(Jwehan, AbuRabie et al. 2014)
	2010	East Jerusalem Gover- norate (EJG)	199 PWID (injected in LM)	3	Community, RDS	Yes	(Štulhofer and Chatty 2010)
Qatar							
Saudi Arabia							
Syria	2013-14	Damascus, Rif Damascus, Tartous, Lattakia	394 PWID (Probably, injection in LM)	?	Community, RDS	Yes	(Kobeissi 2014)
Tunisia	2014	Tunis & Bizert	802 PWID	?	Community, RDS	A summary	(Bouarrouj 2015)
	2011	Tunis & Bizert	807 PWID	?	Community, RDS	No	(Tunisia MoH 2012)
UAE							
Yemen							

¹ A specific report from the study was made available for the authors of this review.

HIV prevalence among PWID

There is sound information available on HIV prevalence among addition to bio-behavioral surveys, many countries include PWUD PWID from 12 countries in the region, and include 27 sources in routine surveillance. The sites of access to PWUD are prisons, that are summarized in Table 6 below. Other data is also available, upon arrest, and upon admission to treatment or rehabilitation and is presented in detail in Table A9 in the Annexes. Table A9 centers. However, records indicating that a person injects drugs also presents other surveillance data and includes studies with mainly depend on his/her self-report. inadequate information that were not included in Table 6. In

Table 6 HIV prevalence among PWID in the MENA region

Country	No. of sources	Years	Geographical distribution	Settings	No. tested	HIV preva- lence (%)	Sources
Afghanistan	1	2012	Five cities	Community, RDS	1,163	4.4 (0.3-13.3)	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain	2	2010-11	Manama	Rehabilitation center	332	3.3-4.6	(Bahrain MoH 2014)
Egypt	1	2010	Two cities	Community, RDS	560	6.5-6.8	(FHI/Egypt MoHP 2010)
Iran	7	2010-14	Most large cities	DICs, outreach and DTCs	5,858	7.7-19	(Haghdoost, Osouli M et al. 2012, Iran MoH 2012, Alipour, Haghdoost et al. 2013, Haghdoost and Danesh 2014, Ramezani, Amirmoezi et al. 2014, Iran MoH 2016b)
Iraq							
Jordan							
Kuwait							
Lebanon	1	2014-15	Greater Beirut	Community, RDS	339	0.26	(MENAHRA 2015a)
Libya	1	2010	Tripoli	Community, RDS	327	87.1	(Mirzoyan, Berendes et al. 2013)
Morocco	5	2010-15	Three cities	Community, RDS	1,082	0-25.1	(Morocco MoH 2012b, Morocco MoH 2014, Morocco MoH 2015b)
Oman							
Pakistan	2	2011-14	Most cities	Community	8,796	36.8-37.8	(Pakistan National Institute of Health 2012, AP Consultancies & Bridge Consultants Founda- tion 2014)
Palestine	2	2010-13	EJG & West Bank	Community	487	0	(Štulhofer and Chatty 2010, Jwehan, AbuRabie et al. 2014)
Qatar							
Saudi Arabia	1	2014	Two cities	Treatment centers	278	1.4	(Saudi Arabia MoH)
Syria	2	2011-14	National & subnational	Community and prison	872	0	(Syria MoH 2012, Kobeissi 2014)
Tunisia	2	2011-14	Two cities	Community, RDS	1609	2.4-3.9	(Tunisia MoPH 2014, Bouarrouj 2015)
UAE							
Yemen							

¹ Studies included contain a minimum amount of data available on their characteristics.

The highest HIV prevalence among PWID has been reported UNAIDS had estimated that in 2016, there had been 230,000 from Libya (87.1%), Pakistan (37.8%), and Morocco (25.1%). [160,000-380,000] people living with HIV in the Middle East and Afghanistan and Egypt have also reported HIV prevalence of over North Africa (UNAIDS 2016). When compared to the estimation 5% in at least one site, after 2010. Countries with HIV prevalence made in the current report for PWID living with HIV/AIDS (208,000), the data appears disproportionate. Therefore, it is important to of between 3 to 5% include Bahrain and Tunisia. We accessed state that the figure for PLHIV in MENA reported by UNAIDS is only three studies in which estimates of HIV prevalence of female not to be used as a denominator for the estimated number of PWID were available, and all were from Iran (Haghdoost, Osouli M et al. 2012, Alipour, Haghdoost et al. 2013, Haghdoost and PWID living with HIV reported in the current report. This is due to the difference in regional country coverage among the two organizations. The 20 MENA countries covered by MENAHRA Danesh 2014). The total sample size of the 3 studies was 162, with an HIV prevalence of 14.2%. differ from the 20 countries covered by UNAIDS for the region. The current report includes Afghanistan, Pakistan, and Palestine Table 7 presents estimated numbers of PWID living with HIV/AIDS. The total number for the 20 countries of the region is estimated while UNAIDS estimations include Djibouti, Somalia, and Sudan to be over 208,000, which is 23.5% of the estimated number of instead. This difference in country coverage largely affects the PWID. Pakistan has the highest estimated number of PWID living profile of injecting drug use and related HIV/AIDS epidemiology with HIV/AIDS with an estimation of over 162,000. Iran follows as and creates a discrepancy in the related estimations between the second country with over 28,000 PWID living with HIV/AIDS. different organizations.

Table 7 Estimated number of PWID living with HIV/AIDS

Country	Estimated midpoint number of PWID ¹	Estimated HIV prevalence (%) among PWID	Estimated midpoint number of HIV positive PWID ²
Afghanistan	20,000	4.4	880
Algeria	(21,050)	(6.5)	(1,368)
Bahrain	2000	3.9	78
Egypt	93,000	6.6	6,138
Iran	208,000	13.8	28,704
Iraq	(18,750)	(0.6)	(113)
Jordan	(4,240)	(0.6)	(25)
Kuwait	(3,510)	(0.6)	(21)
Lebanon	3,200	0.26	8
Libya	(6,800)	87.1	(5,923)
Morocco	18,500	9.1	1,684
Oman	(4,110)	(0.6)	(25)
Pakistan	430,000	37.8	162,540
Palestine	5,000	0	≈ 0
Qatar	(2,220)	(0.6)	(13)
Saudi Arabia	10,000	1.4	140
Syria	10,000	0	≈ 0
Tunisia	11,000	3.9	429
UAE	(9,250)	(0.6)	(56)
Yemen	(7,030)	(0.6)	42
Total	887,000	23.5	208,187

¹ The data for this column is derived from Table 2.

² The proportions in the parentheses are estimations made according to the similarities with other countries where national estimations were available.

Viral hepatitis among PWID

HCV prevalence among PWID, since 2010. Table 8 presents HBV prevalence among PWID since 2010. Table 9 presents summarized data on the 19 studies. Other data is also available, summarized data on the 12 studies. Other data is also available, and is presented in detail in Table A10 in the Annexes, which and is presented in detail in Table A10 in the Annexes; and includes studies with inadequate information that were not includes studies with inadequate information that were not included in Table 8.

HCV infection among 5,138 PWID is reported to be from 3.3% in Syria, up to 94.2% in Libya; however, most of results range between 20% and 56%. The studies show high HCV prevalence in the eight countries of Afghanistan, Iran, Lebanon, Libya, and Saudi Arabia. There is also evidence from Kuwait and Oman Morocco, Palestine, Pakistan, and Saudi Arabia. There is also evidence from Kuwait and Oman illustrating high HCV prevalence among PWID.

A recent systematic review (Malekinejad, Navadeh et al. 2015) from Iran showed that the pooled HCV prevalence among PWUD, with and without an injection history, was 45% and 8% respectively. Therefore, HCV is prevalent among non-injecting PWUD, as well.

There are at least 19 studies available from 9 countries on There are at least 12 studies available from seven countries on included in Table 9.

> HBV infection among 3,740 PWID is reported to be from 0.5% indicating high HBV prevalence among PWID.

Table 8 HCV prevalence among PWID in the MENA region

Country	No. of sources	Years	Geographical distribution	Settings	No. tested	HCV prevalence (%)	Sources
Afghanistan	1	2012	5 cities	Community	1,163	9.5-70.0	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain							
Egypt							
Iran	5	2009-12	8 cities	DICs, DTCs, prisons	719	20.3-56	(Iran MoH 2012, Alipour, Haghdoost et al. 2013, Ramezani, Amirmoezi et al. 2014, Ziaee, Sharifzadeh et al. 2014)
Iraq							
Jordan							
Kuwait							
Lebanon	2	2013 & 2014-15	Beirut	Community and DTC	398	23.4-27.6	(Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016, Merabi, Naja et al. 2016)
Libya	1	2010	Tripoli	Community	316	94.2	(Mirzoyan, Berendes et al. 2013)
Могоссо	5	2010-15	3 cities	Community	1,063	45.4-79.2	(Morocco MoH 2012b, Morocco MoH 2014, Morocco MoH 2015b)
Oman							
Pakistan	1	2012-13	Lahore	Community	241	36.1	(Akhtar, Majeed et al. 2016)
Palestine	2	2010- 2013	EJG & West Bank	Community	487	40.6-42	(Štulhofer and Chatty 2010, Jwehan, AbuRa- bie et al. 2014)
Qatar							
Saudi Arabia	1	2006-12	Riyadh	Hospital	357	77.8	(Alshomrani 2015)
Syria	1	2013-14	4 cities	Community	394	3.3	(Kobeissi 2014)
Tunisia							
UAE							
Yemen							

¹ The studies included contain a minimum amount of data on their characteristics, and have a sample size over 40.

Table 9 HBV prevalence among PWID

Country	No. of sources	Years	Geographical distribution	Settings	No. tested	Prevalence of HBs-Ag (%)	Sources
Afghanistan	1	2012	5 cities	Community	1,163	3.2-8.3	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain							
Egypt							
Iran	5	2009-12	8 cities	DICs, DTCs, prisons	719	1.6-8.5	(Iran MoH 2012, Alipour, Haghdoost et al. 2013, Ramezani, Amirmoezi et al. 2014, Ziaee, Sharifzadeh et al. 2014)
Iraq							
Jordan							
Kuwait							
Lebanon	1	2014-15	Greater Beirut Area	Community	304	2	(MENAHRA 2015a)
Libya	1	2010	Tripoli	Community	316	4.5	(Mirzoyan, Berendes et al. 2013)
Morocco							
Oman							
Pakistan							
Palestine	2	2010- 2013	EJG and West Bank	Community	487	5.3-6.6	(Štulhofer and Chatty 2010, Jwehan, AbuRabie et al. 2014)
Qatar							
Saudi Arabia	1	2006-12	Riyadh	Hospital	357	7.7	(Alshomrani 2015)
Syria	1	2013-14	4 cities	Community	394	0.5	(Kobeissi 2014)
Tunisia							
UAE							
Yemen							

¹ The studies included contain a minimum amount of data on their characteristics, and have a sample size over 40.

Risk behaviors among PWID

No updated information is available on risk behaviors of PWID in nine countries of the region, and these are: Algeria, Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE, and Yemen. The assessments made by the other 11 countries are mainly the bio-behavioral surveys detailed in Table 5 as well as a few behavioral or KAP studies that are detailed in Table A11 in the Annexes. The countries have used a variety of indicators. Details of available information from 11 countries are provided in Table A12 in the Annexes.

Unsafe injection is the main HIV risk behaviour of PWID. This behaviour is usually assessed in different ways, such as:

- Having shared needles/syringes (N/S)
- Shared other injecting equipment
- Shared any injecting equipment
- Injected with used N/S
- Injected with a N/S already used by another person
- Injected with a N/S already used by himself/herself •
- Usual frequency of sharing •
- Proportion of injections with used N/S
- Used sterile needles and syringes

These questions might have been asked for a variety of durations, such as: In lifetime.

- In last 12 months
 - In last six months
 - In last three months
 - In last month
 - In last week
 - In last injection
 - In last injection, if it occurred during the last month

Table 10 Behaviors of PWID related to safe injection

Any of these questions might have been asked for the duration that the person has been incarcerated, as well.

Table 10 shows behaviors of PWID related to unsafe injection. Information presented in the reports that seemed distorted or inaccurate were not presented in this table. Three questions that have been used more frequently in studies from the region are provided in this table. One example is the main indicator proposed for effective monitoring of unsafe injection and commonly used for global reporting on AIDS (UNAIDS 2009): "Percentage of PWID who reported using sterile injecting equipment the last time they injected". The numerator of this indicator is the number of PWID who report using sterile injecting equipment the last time they injected drugs, and the denominator is the number of PWID who report injecting drugs in the last month.

Table 10 shows that there are large differences between countries and/or within countries in the sharing practices of PWID. "Ever shared needles or syringes" has been reported among 0.8% to 85% of PWID. "Shared needles or syringes in the last month" has been reported in 4.7% to 36.2% of respondent PWID, "Used sterile needles and syringes in last injection" has been reported in 65.3% to 95% of PWID. Overall, the information shows that unsafe injection is not rare and occurs in probably about 20% of injections, which is similar to the previous estimation for 2005-2012 (Rahimi- Movaghar, Amin-Esmaeili et al. 2012).

The main reasons reported for not using sterile needles and syringes include difficulty in accessing new syringes at the time of need for a quick injection, and the belief of the safety of injection with a trusted partner.

Country	Study year	Ever shared N/S (%)	Shared N/S in LM (%)	Used sterile N/S in last injection (%)	Source
Afghanistan	2012	0.8-36.0			(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria					
Bahrain					
Egypt	2010		31.8		(Egypt MoH 2012)
	2014		27	78	(Haghdoost and Danesh 2014)
	2013	43.3		88.1	(Radfar and Noroozi 2013)
	2012	18.8	4.7		(Iran MoH 2012)
Iran	2012	54			(Ramezani, Amirmoezi et al. 2014)
	2010-females	55			(Alipour, Haghdoost et al. 2013)
	2010-males	39.1			(Alipour, Haghdoost et al. 2013)
	2010		8	91.7%	(Haghdoost, Osouli et al. 2012) (Haghdoost, Osouli M et al. 2012)
Iraq					
Jordan					
Kuwait					
Lebanon	2014-15			95 ¹	(Lebanon MoPH 2016)
Libya	2010	85	29	71.8 ¹	(Mirzoyan, Berendes et al. 2013)
	2015			72.2 - 73.8	(Morocco MoH 2015b)
Morocco	2013			74.1%	(Morocco MoH 2014)
	2010-12		33.1-36.2	65.3 1-69.1 ¹	(Morocco MoH 2012a) (Morocco MoH 2012b)
Oman					
Pakistan					
Palestine	2013			68.9	(Jwehan, AbuRabie et al. 2014)
	2010			89	(Štulhofer and Chatty 2010)
Qatar					
Saudi Arabia					
Syria	2013-14		11.2	80.5	(Kobeissi 2014)
Tunisia	2014		20.9		(Bouarrouj 2015)
TATIIOIO	2011		29.6	87.7	(Tunisia MoPH 2014)

Unsafe sex is the second most important risk behavior contributing to the HIV epidemic among PWID. The type of information provided from countries is diverse. Details of available information from a variety of studies are presented in Table A12 in the Annexes. The studies have assessed several related subjects, including:

- Having sexual experience

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Sex with a regular partner Data on several selected indicators is presented in Table 11. The Sex with non-regular partner data for indicators that were not defined precisely is not included Sex with non-spouse in this table. The indicator which is recommended to be assessed continuously for monitoring unsafe sex among PWID (UNAIDS Sex with non-regular non-commercial partner Paid money, goods or drugs for sex 2009) is: "Percentage of PWID who report the use of a condom Received money, goods or drugs for sex at last sexual intercourse". The numerator is the number of PWID Paid for sex with a woman (for men) who reported that a condom was used the last time they had Sex with a man (for men) sex, and the denominator is the number of PWID who report Paid for sex with a man (for men) having injected drugs and having had sexual intercourse in the Sex in prison last month. Data on this indicator shows ranges from 6.1% to Number of sex partners 33.4%, meaning that less than one-third of PWID use condoms Number of female sex partners in their sexual practice. In addition, condom use in last sex with Number of male sex partners female sex workers, and in same-sex relation, is reported to • be low. It should be noted that in the studies from the region, In addition, the "frequency of condom use" for each type of denominators of this indicator are inconsistent and do not match partner or "condom use in last sex" with each type of partner the recommended definition.

Table 11 Sexual behaviors of PWID

Country	Study year	Ever had sex (%)	Condom use in last sex (%)	Men ever sex with FSWs (%) ¹	Cor use sex FSV
Afghanistan	2012		23.4	19.8-63.4	
Algeria					
Bahrain					
Egypt	2010	96.1-97.5			24
	2014	84.1	33.4		
lucu	2013	92.1	33.2		
Iran	2012		30.7		
	2010	85			5
Iraq					
Jordan	2011		71		
Lebanon		97.8			
Libya	2010	77	15.1 ¹		79
	2015		22		
	2015		29		
Morocco	2013-14		31.4		
	2011-12		29.8		
	2010-11		32.8		
Oman					
	2014	75.0			19
Pakistan					
	2011	93.2			2
Delection	2013		29.2		5
Palestine	2010		30.4 ¹		
Qatar					
Saudi Arabia					
Syria	2013-14	95.7	6.1		
Tunisia					
UAE					
Yemen					

¹ From the whole sample

² From those who had sex with FSWs

From those who had sex with 1 GV/S
 From those who had sex with FSWs in L12M

- might be questioned. Moreover, questions on sex and condom use with any partner might be asked for different durations of time, such as:
- l ifetime •
- Last six months
- Last month
- Last 12 months
- Last three months
- Last week

- Condom use in Men ever last sex with a sex with Source men (%) man (%) (Johns Hopkins University and Afghanistan 0-16 MoPH 2012) 7.7-14.3 4.6² (FHI/Egypt MoHP 2010) 16.5 10.7 (Haghdoost and Danesh 2014) 22 13.8³ (Radfar and Noroozi 2013) 24.6 (Iran MoH 2012) 3.34 12.2 41.55 (Haghdoost, Osouli M et al. 2012) (Shahroury 2011) 3.3 (MENAHRA 2015a) 9.7 6 (Mirzoyan, Berendes et al. 2013) (Morocco MoH 2015b) (Morocco MoH 2015b) (Morocco MoH 2014) (Morocco MoH 2012a) (Morocco MoH 2012a) (AP Consultancies & Bridge Consultants 9.07 20.7^{8} Foundation 2014) 8.47 16.3⁸ (Pakistan National Institute of Health 2012) 6.84 (Jwehan, AbuRabie et al. 2014) (Štulhofer and Chatty 2010) (Kobeissi 2014)
 - ⁵ From those men who had sex with men in L12M
 - ⁶ From those who had sex with FSWs in LM
 - From those who had sex with FSWs in L6M ⁸ From those men who had sex with men in L6M

HIV knowledge among PWID

Knowledge of PWID regarding HIV/AIDS has been assessed in • 10 countries, and the details are provided in Table A12 in the Annexes. Table 12 below presents data on selected items. Below is a summary of the findings:

- The proportion of PWID who have ever heard of HIV/AIDS Overall, the findings show that many PWID do not have good was available from nine studies in five countries and the range was from 49.5% to 100%.
- Data on identifying sharing injection equipment as an HIV transmission route was available from 11 studies in six countries and the range was from 43% to 99.2%.

Table 12 HIV knowledge among PWID

Data on knowing that condoms are a mode of protection for HIV transmission was available from 11 studies in five countries and the reported range was from 16.3% to 97.5%.

knowledge on HIV/AIDS, its risk behaviors, and preventive measures. This poor knowledge predisposes PWID to risky behaviors and HIV infection.

Country	Study year	Ever heard of HIV/AIDS (%)	Identified sharing as HIV transmission route (%)	Knowing condom as a protection for HIV transmission (%)	Source
Afghanistan	2012	49.5-95.2		16.3-66.3	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria					
Bahrain					
Egypt	2010	98.9-100			(FHI/Egypt MoHP 2010)
	2014	93.5	94.1	94.4	
	2013	97.4			(Radfar and Noroozi 2013)
Iran	2012	78.6		73.4	(Iran MoH 2012)
	2010		99.1	84	(Alipour, Haghdoost et al. 2013)
	2010	96.9	98.6	94.6	
Iraq					
Jordan	2011		43		(Shahroury 2011)
Kuwait					
Lebanon					
Libya					
	2015		97.5	97.5	(Morocco MoH 2015b)
Morocco	2015		96.8	72.7	(Morocco MoH 2015b)
	2013-4		99.2	96.4	(Morocco MoH 2014)
Oman					
Pakistan	2014	73.9	55.0	38.5	(AP Consultancies & Bridge Consultants Foundation 2014)
Fakistan	2011	86.7		68.8	(Pakistan National Institute of Health 2012)
Palestine	2013		94.1		(Jwehan, AbuRabie et al. 2014)
T diestine	2010	-	95.5		(Štulhofer and Chatty 2010)
Qatar					
Saudi Arabia					
Syria	2013-14	98.5	95.2	69.5	(Kobeissi 2014)
Tunisia					
UAE					
Yemen					

Harm Reduction Policy

Adoption of harm reduction policy in the overall HIV prevention or drug control efforts has a history of fifteen years in the Eastern Mediterranean Region, and started from Iran and Pakistan. Currently only six countries have adopted the harm reduction policy and clearly noted it in their national plans or reports. These countries are: Afghanistan, Iran, Lebanon, Morocco, Pakistan, and Palestine. Eight other countries have noted PWID as an important key population in their national plans in addition to some HIV prevention strategies, such as awareness raising.

These countries are: Algeria, Bahrain, Egypt, Jordan, Libya, Oman, Syria, and Tunisia.

However, developments have occurred in several countries since 2010. In Libya, where a new NASP has been developed, PWID are included as key population. In addition, several countries, such as Kuwait, Oman, Pakistan, Palestine and the UAE, have planned for starting new harm reduction strategies in their drug treatment facilities.

Table 13 Policies toward HIV prevention in PWID

Country	Policies toward PWID in NASP	Policies toward PWID in other National documents	Country	Policies toward PWID in NASP	Policies toward PWID in other National documents
Afghanistan	HRD in NASP	HRD in National Drug Control Strategy National OST Policy GF-R7 grant	Могоссо	HRD in NASP	HRD in National Plan for Harm reduction National Strategy on Drug Use GF-R6 and R10 grant
Algeria	PWID in NASP	PWID in GF-R3 grant	Oman	PWID in NASP	OST as a new drug treatment
Bahrain	PWID in NASP				approach
Egypt	PWID in NASP	PWID in GF-R6 grant	Pakistan	HRD in NASP	HRD in GF-R9 grant OST as a new drug treatment
		HRD in National Drug Control			approach
Iran	HRD in NASP	Program GF-R2 and GF-R8 grant	Palestine	PWID in NASP	HRD in GF-R7 grant OST as a new drug treatment
Iraq	-				approach
Jordan	PWID in NASP	PWID in GF-R2	Qatar	-	
		GF-Ro grant	Saudi Arabia		
Kuwait	-	OST as a new drug treatment approach	Syria	PWID in NASP	PWID in GF-R10 grant
		Decree on OST implementation	Tunisia	PWID in NASP	PWID in GF-R6 grant
Lebanon	HRD in NASP	OST in the National Strategy on Substance Use	UAE	-	OST as a new drug treatment approach
Libya	PWID in NASP		Yemen	-	

Opioid Substitution Treatment

of the region: MMT in the four countries of Afghanistan, Iran, Morocco, and Palestine; and BMT in the four countries of Iran, Kuwait, Lebanon, and the UAE. Iran uses opium of tincture for substitution treatment, as well. Iran has a large OST program, with more than 7,000 centers and several prisons providing OST to more than 650,000 opioid dependents. However, a small proportion of these clients are PWID (Shekarchizadeh, Ekhtiari et al. 2012). Morocco and Lebanon have expanded their OST

Prior to 2010, Iran was the only country offering OST. Since 2010, Afghanistan, Morocco, and Lebanon initiated OST, followed later on by Kuwait, Palestine, and the UAE. Afghanistan stopped enrolling new patients after a pilot OST program; however, for the past several years, the country has been planning to re-initiate the service. Oman and Pakistan are also currently planning to initiate OST. As shown in Table 14, OST currently exists in seven countries services in recent years.

Table 14 OST availability in the countries of the region

Country	Data Year	Medication	No. of centers	No. of clients on OST	Source
Afghanistan	2010	MMT	One site	71	(Moszynski 2011)
Algeria					
Bahrain					
Egypt					
Iran	2016	MMT BMT Tincture of Opium	7016 outpatient centers and several prisons	No. on MMT: >520,000 No. on BMT: > 100,000 No. on Tincture of opium: >30,000	(Iran MoH 2016b)
Iraq					
Jordan					
Kuwait	2017	BMT	One center	135	(Al-Zayed A. 2017)
Lebanon	2016	BMT	>10	>1,700 (from 2012 to end 2016) 200-250 new patients annually	(Abbas 2017)
Libya					
Morocco	2014	MMT	Seven sites	625 enrolled in 2014	(Morocco MoH 2015a)
Oman		Planned for MMT			
Pakistan		Planned for MMT			
Palestine	2015	MMT	One site in West Bank	52	(Harm Reduction International 2016, National Advocates for Pregnant Women 2016)
Qatar					
Saudi Arabia					
Syria					
Tunisia					
UAE	2017	BMT	One center	87	(Elkashef 2017)
Yemen					

Needle and Syringe Programs

already provide this service to PWID. Iran and Pakistan have large NSP services; and Afghanistan, Lebanon, Morocco, Palestine, and Tunisia also have extensive programs. NSP also existed in Egypt and Oman for some time.

Several changes have occurred in recent years. Jordan started NSP in five governorates in 2013, and later expanded to include and outreach facilities.

It is for fifteen years that NSPs exist in the region. Nine countries 10 governorates. The service has also expanded in Iran, Pakistan, and Palestine. However, the program was stopped in Egypt following some issues with the authorities; it was also stopped in Oman. Availability of funding, political commitment and support, long bureaucratic process of getting approval, as well as security problems have been the main challenging factors in providing free needles and syringes to PWID through harm reduction centers

Table 15 Needle and Syringe Programs in the countries of the region

Country	No. of PWID received free N&S	No. of NSP sites	No. of N&S distributed	No. of Sy/PWID/ Year	% of PWID received Sy.	Source
Afghanistan				(2012) 92.2	(?) 30%	(Afghanistan MoPH 2014)
Algeria						
Bahrain						
Egypt	(2010-11) 3,492 (2014, in Minya & Greater Cairo) 368 (2015, in Minya) 586		(2014, in Minya & Greater Cairo) 11,451 (2015, in Minya) 41,297 (2016, in Minya) 29,588			(Egypt MoHP 2014b, MENAHRA 2015b, MENAHRA 2016)
Iran		(2014) 580	(2014) 10,136,060	(2014) 44-60	(2014) 58.4%	(Haghdoost and Danesh 2014, Iran MoH 2015)
Iraq						
Jordan	(2013) 264 (2014) 182 (2015) 557 (2016) 393	(2016) 10	(2014) 21,775 (2015) 143,764 (2016) 120,963			(Jordan MoH 2014, MENAHRA 2015b, MENAHRA 2016)
Kuwait						
Lebanon	(2014) 285 (2015) 192 (2016) 193		(2014) 18,898 (2015) 48,668 (2016) 53,113			(MENAHRA 2015b, MENAHRA 2016)
Libya						
Morocco	(End 2010) 915	(2014) 6	(2014) 238,946 (2013) 203,690 (2012) 225,320 (2011) 224,040	(2011, 3 cities) 13		(Morocco MoH 2011, Morocco MoH 2015a)
Oman						
Pakistan	(2014) 43,300		(2014) 7,714,000	(2014) 178	(2011) 41.3%	(Pakistan MoH 2015a)
Palestine	(2009-10) 255	(2009-10) 2	(2014) 23,540 (2009-10) 1,500		(2010, EJ) 22.8% (2013, WB) 45%	(Štulhofer & Chatty 2010, UNAIDS & GFATM 2012, Jwehan, AbuRabie et al. 2014, UNDP 2015)
Qatar						
Saudi Arabia						
Syria						
Tunisia		(2013) 25 (2012) 5 (2011) 3	(2013) 48,000 (2012) 85,000 (2011) 137,000	(2013) 4.4 (2012) 9.4 (2011) 15.2		(Tunisia MoH 2012, Tunisia MoPH 2014)
UAE						
Yemen						

HIV counselling and testing

HIV counselling and testing is widely available in 14 countries countries of Libya, Oman, and Qatar. There is no HCT available in Bahrain, Kuwait, and the UAE. Three countries (Egypt, Iran, and of the region. Iran reports a very high number of centers providing testing, whether by rapid test or by Enzyme-Linked Tunisia) have reported that voluntary HCT is available in prisons, Immunosorbent Assay (ELISA), in many health facilities and in as well. The most recent available data on number of centers providing HCT, and the number of clients are presented in Table centers providing services for key populations. Yet, the country reports that coverage for key populations is inadequate. The A13 in the Annexes. service is limitedly available through one or few centers in the

Table 16 The history of HIV testing among PWID

Countries	Study characteristics	Sample	Ever tested (%)	Ever tested and know the result (%)	Tested in L12M (%)	Tested in L12M and know the result (%)	Source
Afghanistan	2012, five cities	1,163	6.8-70.9		4.9-63.4	4.0-50.5	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain							
Egypt	2010, two cities	560	9.5	3.9			(FHI/Egypt MoHP 2010)
	2014, 10 cities	2,399	55.9			27.2	(Iran MoH 2015)
	2012, three cities		32.3	26.6			(Iran MoH 2012)
Iran	2010, 10 provinces	2,146	49.8	39.7	30.3	24.9	(Shokoohi, Karamouzian et al. 2016)
	2010, three cities	226	39.6	34.2			(Alipour, Haghdoost et al. 2013)
Iraq							
Jordan	2011, four cities	214		12.6			(Shahroury 2011)
Kuwait							
Lebanon	2014-15, Greater Beirut	390	73.5				(Lebanon MoPH 2016, MENAHRA 2015a)
Libya						About half	(Mirzoyan, Berendes et al. 2013)
	2015, Nador	202			33.9	31.3	(Morocco MoH 2015b)
Morocco	2015, Tangier	114			28	17.8	(Morocco MoH 2015b)
Morocco	2011-12, Nador	277				10.9	(Morocco MoH 2012a)
	2010-11, Tangier	268				7.6	(Morocco MoH 2012a)
Oman							
Dekiston	2014, Punjab	3,840	70.8	20.0			(AP Consultancies & Bridge Consultants Foundation 2014)
Fakistan	2011, 16 cities	4,956				9.1	(Pakistan National Institute of Health 2012)
Palastina	2013, WB	288	33.1		16.6		(Jwehan, AbuRabie et al. 2014)
raiestine	2010, EJG	199	61.3	57.5			(Štulhofer and Chatty 2010)
Qatar							
Saudi Arabia							
Syria	2013-14, three cities	394	43.4				(Kobeissi 2014)
Tunisia	2011, two cities	807				19.5	(Tunisia MoH 2012)
UAE							
Yemen							

through surveys on PWID (Table 16), and are summarized below:

- In seven countries, the prevalence of "ever been tested" has
- Overall, many countries do not have information on these been reported. The figure ranges from 6.8% up to 73.5%. indicators, and those with such information have reported that • From five countries, the prevalence of "ever been tested and know the results" has been reported. The results vary from HIV testing has been carried out among less than one-third of 3.9% to 57.4%. PWID during the 12-month period before their survey.
- Four countries have reported on "tested for HIV in the last 12 months". The results are from 4.9% to 63.4%.

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- Data from ten countries are available on pattern of HIV testing In six countries, the prevalence of "tested in the last 12 months and know the results" has been reported. The figure is from 4% to 62.6%.

Prisons

Information available from several countries confirms that drugs and injecting drug use exist within prisons. However, generally, HIV prevalence is low in prisons in countries of the region. Since 2010, an HIV prevalence of higher than 1% has been reported from Egypt, Iran, and Saudi Arabia (Table 17). In addition, seven in Iran and includes MMT, HIV education, and in limited number countries had updated data on HCV, with a median prevalence of of prisons - NSPs. 1.7% in Afghanistan, 23.6% in Egypt, 28.1% in Lebanon, 15.6% in Pakistan, and 37.8% in Iran. Syria and Libya had only one HCV prevalence measure each at 1.5% and 23.7%, respectively (Heijnen, Mumtaz et al. 2016).

Despite all the evidence for risk of HIV in prisons, the overall response in the region has been insufficient. Several countries provide VCT and HIV preventive education for prison inmates. The largest HIV prevention service, started in 2003, is provided

Table 17 HIV/Drugs in prison

Countries	Drugs in Prisons	HIV in Prisons
Afghanistan	(2012, IBBS in PWID in five cities) Ever injected in prison: 0.6-29.5% (Johns Hopkins University and Afghanistan MoPH 2012)	(2012, IBBS in prisoners) >1% (Johns Hopkins University and Afghanistan MoPH 2012) (2011-2015) 0.03-0.2% (Heijnen, Mumtaz et al. 2016)
Algeria		
Bahrain		
Egypt		(2010-2012) 0.7-1.6% (Heijnen, Mumtaz et al. 2016)
Iran		(2010-2012) 0.7-2.9% (Heijnen, Mumtaz et al. 2016)
Iraq	5% of prisoners are regular users of prescription drugs (Iraq MoH 2012)	(2010) No case (Heijnen, Mumtaz et al. 2016) (2013 and 2015) No case (WHO Eastern Mediterranean Region 2016)
Jordan		(2010) No case (Heijnen, Mumtaz et al. 2016)
Kuwait		(2011-13) 0.1-0.3% (WHO Eastern Mediterranean Region 2016)
Lebanon		(2012) 0.08% (WHO Eastern Mediterranean Region 2016)
Libya		
Morocco	80-90% of PWID had used drugs and one-third were injected in prison (Morocco MoH 2014, Morocco MoH 2015b) Two MMT centers in prison	(2010) 0.5% (Heijnen, Mumtaz et al. 2016) (2014) 0.2% (2015) 0.6% (WHO Eastern Mediterranean Region 2016)
Oman		(2010) 0.3% (Heijnen, Mumtaz et al. 2016) (2010-15) 0.1-0.8% (WHO Eastern Mediterranean Region 2016)
Pakistan	(2012) 17% of prisoners in a prison reported using drugs in prison (Mansoor, Muazzam et al. 2014)	
Palestine	48.8% of PWID ever injected in prison (Jwehan, AbuRabie et al. 2014)	(2010) No case (Heijnen, Mumtaz et al. 2016)
Qatar		
Saudi Arabia		(2010-12) 0.2-1.3% (Heijnen, Mumtaz et al. 2016) (2015) 0.3% (WHO Eastern Mediterranean Region 2016)
Syria	22% of 400 prisoners indicated drug use in prison (Kobeissi 2014)	(2011-14) 0-0.2% (Heijnen, Mumtaz et al. 2016)
Tunisia		(2015) 0.1% (WHO Eastern Mediterranean Region 2016)
UAE		
Yemen		

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Priority setting for future plans

In order to set priorities for future planning on HIV prevention for PWID, several indicators were selected. Each indicator was defined and classified, and criteria for ranking the countries were set as described below:

Extent of injecting drug use:

Extent of injecting drug use was assessed by the indicator "PWID prevalence". It is defined as "average estimate for the number of PWID per 1000 adult population of the country". According to the distribution of prevalence of PWID in the countries of the MENA region, the following classification was used:

- High PWID prevalence: > 1.5 per 1000 of adult population
- Moderate PWID prevalence: 1-1.5 per 1000 of adult population
- Low PWID prevalence: < 1 per 1000 of adult population

Contribution of injecting drug use to HIV epidemics:

This subject was assessed through the two following indicators:

1- HIV prevalence among PWID:

As several reports with wide variations on HIV prevalence among PWID might be available across time or sites, the definition included the "highest reported HIV prevalence among any PWID population in the country, since 2010". The following categories were used for classifying this indicator:

- High prevalence: Any report of more than 5%
- Moderate prevalence: 1-5%
- Low prevalence: All reports <1%
- NA: No data available

2- HIV/AIDS cases attributable to PWID:

Since there is variability in reports on the degree of PWID contribution to the HIV scene of the country, again "the highest reported percentage of HIV/AIDS cases attributable to PWID since 2010 or cumulative figure" was applied for defining this indicator and categorized as below:

- High: Any report of >20%
- Moderate: 5-20%
- Low: All reports <5%
- NA: No data available

For concluding on importance of HIV among PWID in the countries, both of the above indicators were utilized:

- o High contribution: High for indicators 1 or 2
- o Moderate contribution: Not high contribution, moderate for any indicators 1 and 2
- o Low contribution: Low contribution for both indicators

Therefore, the following priorities for HIV prevention among PWID Table 18 shows the final conclusion on the significance of the were determined (Figure 2): IDU/HIV situation in the 20 countries of the region. As shown, injecting drug use is a serious problem in Pakistan and Iran. In Priority 1 countries: the eight countries of Afghanistan, Bahrain, Egypt, Libya, and Palestine, there are also considerable Bahrain, Egypt, Iran, Libya, Morocco, Pakistan, and Tunisia. proportions of PWID in the population. Injecting drug use is Priority 2 countries: the eight countries of Jordan, Kuwait, contributing significantly to HIV epidemics in Afghanistan, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, and UAE. Bahrain, Egypt, Iran, Libya, Morocco, Pakistan, and Tunisia.

Figure 2 Ranking of countries in terms of priority for HIV prevention among PWID



drug use. It includes bio-behavioral studies conducted since 2010, changes in adoption of harm reduction policies, and establishment or scale-up of services in recent years. Figure 3

Table 18 Final conclusion on importance of IDU/HIV situation in the countries of the region

Country	Extent of injecting drug use	Contribution of PWID to HIV epidemics	Priority
Afghanistan	Μ	Н	1
Algeria	L	L	3
Bahrain	Н	Н	1
Egypt	Н	Н	1
Iran	Н	Н	1
Iraq	L	L	3
Jordan	L	Μ	2
Kuwait	М	L	2
Lebanon	L	Μ	2
Libya	Н	Н	1
Morocco	L	Н	1
Oman	Μ	L	2
Pakistan	Н	Н	1
Palestine	Н	L	2
Qatar	Μ	L	2
Saudi Arabia	L	М	2
Syria	L	L	3
Tunisia	Μ	Н	1
UAE	Μ	L	2
Yemen	L	L	3

L: Low, M: Moderate, H: High

- Priority 3 countries: the four countries of Algeria, Iraq, Syria and Yemen.

Lebanon Afganistan Iran **Palestine** Pakista ()a Saudi Arat

Table 19 shows a summary of countries' responses to injecting also shows developments in policies and services over time. Using data on the current situation, main priority areas for each country have been suggested.

Table 19 Summary of countries' responses to injecting drug use

Countrico	DDC among DWID aires 2005	Changes since 2010			
Countries	BBS among PWID Since 2005	HRD policies	OST	NSP	
Afghanistan	2005, 2007, 2009, 2012	+	\downarrow	+	
Algeria					
Bahrain					
Egypt	2006, 2010			\checkmark	
Iran	2006, 2006, 2007, 2008, 2010, 2012, 2013, 2014	+	\uparrow	\uparrow	
Iraq					
Jordan	2008	\uparrow		\uparrow	
Kuwait		\uparrow	\uparrow		
Lebanon	2007, 2014	+	\uparrow	+	
Libya	2010	\uparrow			
Morocco	2010, 2011, 2013, 2015		\uparrow	+	
Oman			Approval	\downarrow	
Pakistan	2005, 2006, 2008, 2011, 2014	\uparrow	Approval	\uparrow	
Palestine	2010, 2013	\uparrow	\uparrow	\uparrow	
Qatar					
Saudi Arabia					
Syria	2006, 2013				
Tunisia	2009, 2011, 2014			\checkmark	
UAE		\uparrow	\uparrow		
Yemen					

Bold fonts show BBS conducted since 2010.

Figure 3 Harm reduction policy and services in the years 2008, 2012 and 2016



understanding of the IDU/HIV situation to help in developing appropriate policies and services (Table 20):

- Need PWID size estimation: Algeria, Iraq, Jordan, Kuwait, Ready to establish OST service and would benefit from ٠ Libya, Oman, Qatar, UAE, Yemen. receiving support in this regard: Afghanistan, Oman, and Pakistan.
- Need BBS study on PWID: Algeria, Iraq, Jordan, Kuwait, Ready for scale-up of OST services: Palestine and UAE. Oman, Qatar, UAE, Yemen. • Would benefit from advocacy for establishing NSP: Bahrain,
- Need improving HIV case identification and reporting: ٠ Pakistan. Egypt, Libya, and Oman.
- Would benefit from advocacy for adopting harm reduction Ready for scale-up their NSP services: Jordan, Lebanon and • policy: Bahrain, Egypt, Jordan, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Tunisia, and UAE. Tunisia.

Table 20 Areas that will help countries in harm reduction

Country	Priority	Main studies	Advocacy for HRD policy	OST	NSP
Afghanistan	1			Advocacy and establishment	
Algeria	3	PWID size estimation BBS on PWID			
Bahrain	1		Yes	Advocacy	Advocacy
Egypt	1		Yes	Advocacy	Advocacy
Iran	1				
Iraq	3	PWID size estimation BBS on PWID			
Jordan	2	PWID size estimation BBS on PWID	Yes	Advocacy	Scale-up
Kuwait	2	PWID size estimation BBS on PWID	Yes		
Lebanon	2				Scale-up
Libya	1	PWID size estimation	Yes	Advocacy	Advocacy
Morocco	1				
Oman	2	PWID size estimation BBS on PWID	Yes	Establishment	Advocacy and establishment
Pakistan	1	HIV case identification		Establishment	
Palestine	2			Scale-up	
Qatar	2	PWID size estimation BBS on PWID	Yes	Advocacy	
Saudi Arabia	2		Yes	Advocacy	
Syria	3				
Tunisia	1		Yes	Advocacy	Scale-up
UAE	2	PWID size estimation BBS on PWID	Yes	Scale-up	
Yemen	3	PWID size estimation BBS on PWID			

Bold fonts highlight the areas of work for Priority 1 countries

Below are the areas that will help countries to have a better • Would benefit from advocacy for establishing OST: Afghanistan, Bahrain, Egypt, Jordan, Libya, Qatar, Saudi Arabia, and Tunisia.

Table A1 Annual prevalence of drug use among population aged 15-64, country reports to UNODC since 2010 (UNODC 2016)

Countries	Year and source of the report	Cannabis (%)	Opioids (%)	ATS (%)	Cocaine
Afghanistan					
Algeria	2010 - ARQ	0.52	0.55 (0.50 – 0.60)	0.030	0.010
Bahrain					
Egypt					
ran	2010 – ARQ (Opioids) 2010 – Government Source (ATS)		2.27	0.13 (0.10 – 0.16)	
raq					
Jordan					
Kuwait					
Lebanon					
_ibya					
Morocco	2011 – Government Report		0.08		
Oman					
Pakistan	2012 - Government/UNODC	3.60 (3.10 - 4.00)	2.40 (2.00 – 3.10)	0.080 (0.04 – 0.20)	0.010 (0.00 – 0.02)
Palestine					
Qatar					
Saudi Arabia					
Syria					
Funisia	2013 – ARQ (Cannabis) 2011 – Government Report (Opioids)	2.60	0.12		
JAE					
/emen					

Table A2 Drugs of use in the countries of the region

Countries	Main drugs used ¹ - in order of prevalence	Primary drugs of abuse among persons treated for drug problems
Afghanistan	<u>Opioids</u> (opium, codeine, heroin), cannabis, benzodiazepines (Cottler, Ajinkya et al. 2014)	(2010, 3 DTCs) In women: Opium, followed by crystal (potent heroin) (Abadi, Shamblen et al. 2012)
Algeria	Cannabis, psychotropics and opioids	(2008-2012) cannabis, opiates and psychotropic drugs poly-drug use is very common (Abdennouri 2014)
Bahrain		
Egypt	<u>Tramadol</u> , cannabis, opioids (Egypt Independent 2013, Bassiony, Salah El-Deen et al. 2015, Loffredo, Boulos et al. 2015)	Tramadol, heroin and alcohol (The economist 2015, Zaki, Soltan et al. 2016)
Iran	(2011, National) <u>Opioids</u> , cannabis, ATS (Amin-Esmaeili, Rahimi-Movaghar et al. 2016)	Opioids, ATS, tramadol and prescription opioids, cannabis
Iraq	Prescription drugs, alcohol and cannabis (Al-Hemiary, Al-Diwan et al. 2014, Iraq MoH 2016)	Alcohol or prescription drugs (Iraq MoH 2012)
Jordan	Cannabis, ATS, opioids (UNODC 2011)	Two main public DTCs: (2010-2011) Heroin constitutes 23% of all drug abuse admissions (Jordan MoH 2012); (2012-2013) heroin constitutes 22.5% of all drug abuse admissions (Jordan MoH 2014)
Kuwait	(2013, students) Cannabis, ATS, cocaine and opioids (Bajwa, Al-Turki et al. 2013)	(2014) Heroin, methamphetamine and tramadol (Kuwait MoH 2010)
Lebanon	<u>Cannabis</u> , prescription drugs, ATS, opioids (Salameh, Rachidi et al. 2015, Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016)	(2012) Heroin (31%), cocaine (20%) and cannabis (17%) (El-Khoury, Abbas et al. 2016)
Libya		
Morocco	Cannabis, opioids and cocaine (Toufiq, El Omari et al. 2014)	
Oman		Opiates (69%), cannabis (57%), sedatives (36%), stimulants (5%) (Ben Zaher Al Abri 2016)
Pakistan	Cannabis, opioids (Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013)	
Palestine	<u>Cannabis</u> , cocaine, tramadol, ecstasy (Council of The European Union 2012, Massad, Shaheen et al. 2016, GINAD 2017)	
Qatar	<u>Cannabis</u> , opioids	
Saudi Arabia	Amphetamine pill (Captagon) and cannabis (WHO 2013)	Amphetamines, cannabis and opioids (Bassiony 2013, WHO 2013)
Syria	<u>Cannabis</u> , opioid	
Tunisia	(2013, students) <u>Prescription drugs</u> , Cannabis, cocaine (Aounallah – Skhiri, Zalila et al. 2014, Tunisia MoH and Pompidou Group 2014)	Buprenorphine (34.8-50%), alcohol and psychotropic drugs (Aounallah – Skhiri, Zalila et al. 2014, Sellami, Messedi et al. 2016)
UAE	Cannabis, opioids (UNODC 2016)	Opioids and alcohol (tramadol is higher among the youngest group, heroin in the older group) Poly-substance use is rising affecting 84.4% of all clients (Alblooshi, Hulse et al. 2016)
Yemen	Khat, sedatives, opioid analgesics (Al-Mugahed 2008, El-Zaemey, Heyworth et al. 2014, El-Menyar, Mekkodathil et al. 2015, Abood and Wazaify 2016)	

ANNEXES



Table A3 Estimations on the number of PWID

Countries	Year	Estimation	Method of estimation	Source
Afabanistar	2012	16,700 for four cities	Indirect estimation	(Johns Hopkins University and Afghanistan MoPH 2012)
Afgnanistan	2009	20,000 (18,000 - 23,000) ¹		From 2009 Drug Use Survey ² (Afghanistan MoPH 2012)
Algeria				
Bahrain	NK	3000	50% more than number of registered PWID	Estimated from data presented in (Bahrain MoH 2010)
Egypt	2014	93,314 male (86,142 - 119,412)	Indirect estimation by key informants in three areas	(Egypt MoHP 2014a)
Iran	2013	208,000 (183,000 - 238,000)	Indirect national estimation by network scale-up method	(Nikfarjam, Shokoohi et al. 2016)
Iraq				
Jordan				
Kuwait	2014	12,000	Indirect estimation from the pattern of use among clients in treatment	(Kuwait MoH 2015)
1 - 4	NK	2000 - 4000		(Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016)
Lebanon	2015	3114 (±2302) for Great Beirut	Indirect estimation by RDS method	(MENAHRA 2015a)
Libya				
	2015	1500 (504-2132)		(Shaw, Hermez et al. 2016)
Morocco	2013	5000	Indirect estimation based on multiplier method	(WHO Eastern Mediterranean Region 2016)
	2010	18,500	Indirect estimation	(Sabir and Toufiq 2014, WHO Eastern Mediterranean Region 2016)
Oman				
	2012	430,000		(Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013)
Pakistan	2014 (Extrapolated from 2011 data)	104,804		(Pakistan MoH 2015a)
Palestine	2012	5,000		(WHO Eastern Mediterranean Region 2016)
Qatar				
Saudi Arabia	2008	10,000		(WHO Eastern Mediterranean Region 2016)
Syria	NK	10,000	Provided by local experts	(WHO Eastern Mediterranean Region 2016)
	NK	20,000		(GINAD 2016)
Tunisia	2013	11,000	Mapping by NGOs	(Tunisia MoPH 2014)
	2011	9,500 (8,000-11,000)		(Shaw, Hermez et al. 2016)
UAE				
Yemen				

¹ Two-thirds are current and regular injectors.

² UNAIDS, MoCN, et al. (2009). Drug Use in Afghanistan: 2009 survey, United Nations Office on Drugs and Crime, Ministry of Counter Narcotics, Ministry of Public Health.

Table A4 Proportion of PWID among PWUD population

Countries	Proportion of PWID among PWUD	Source
Afghanistan		
Algeria		
Bahrain		
Egypt		
	(2011, Tehran, clients of MMT) 5%	(Shekarchizadeh, Ekhtiari et al. 2012)
Iran	(2011, general adult population) From those with daily opioid use, injected in L12M: 5.1%	(Rahimi-Movaghar, Amin-Esmaeili et al. 2012)
Iraq		
Jordan	Two main public DTCs (2010-11) Heroin users: 58% inject (2012-13) Heroin users: 68.6% inject	(Jordan MoH 2012)
Kuwait	60% of PWUD in treatment	(Kuwait MoH 2015)
Lebanon	(January 2012 to December 2013) (from 1373 cases admitted to eight DTCs): 69.6%	(Lebanon Ministry of Public Health, Lebanon Ministry of Education and Higher Education et al. 2016)
Libya		
Morocco	From heroin users two-third inject	(Toufiq, El Omari et al. 2014)
Oman	55% of those registered for drug use treatment are PWID	(Ben Zaher Al Abri 2016)
Pakistan		
Palestine	(2010, 352 DUs) 42% inject, 24% injected in LM	(UNODC and AWARD 2011)
Qatar		
Saudi Arabia		
Syria		
Tunisia	6.4% of PWUD are injecting	Derived from (GINAD 2016)
UAE	(Key informant report) Relatively small proportion of the PWUD inject PWID are a minority group at NRC	(United Arab Emirates MoH 2012, United Arab Emirates MoH 2014)
Yemen		

Table A5 Main drugs of injection

Countries	Main drugs of injection	Source
Afghanistan		
Algeria		
Bahrain	Heroin, followed by ATS and cocaine	(Bahrain MoH 2012)
Egypt		
Iran	(2014, IBBS, 10 provinces) Opioids (mainly heroin) (>90%), methamphetamine (21%), buprenorphine (4%)	(Haghdoost and Danesh 2014)
Iraq	Probably prescription drugs	(Iraq MoH 2012)
Jordan	(2010-2013, two main public DTCs) Heroin	(Jordan MoH 2012, Jordan MoH 2014)
Kuwait	Heroin	(Kuwait MoH 2015)
Lebanon	Heroin (67%), cocaine (18%), pharmaceutical opioids (10%)	(MENAHRA 2015a)
Libya	(2010) Buprenorphine (84%), heroin (over 10%)	(Mirzoyan, Berendes et al. 2013)
Morocco	Heroin and rarely cocaine	(Morocco MoH 2014)
Oman	Heroin, morphine or combination	(Oman MoH 2012)
	(2014, Punjab) Avil (injection containing antihistamine pheniramine) (82 %), followed by heroin (53%) and psychoactive drug diazepam (30%)	(AP Consultancies & Bridge Consultants Foundation 2014)
Pakistan	(2012, national) Heroin and prescription drugs	(Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013)
	(2011, National) Avil (containing antihistamine pheniramine) in most cities: heroin, in others: temgesic & benzodiazepines	(Pakistan National Institute of Health 2012)
Palestine	(2010, National) Heroin (81%), cocaine (71%), morphine (26%), methadone (15%), ATS (12%) and opium (10%)	(UNODC and AWARD 2011)
	(2013, West Bank) Heroin (79%), cocaine (8%), Mixed heroin and cocaine (12%)	(Jwehan, AbuRabie et al. 2014)
Qatar		
Saudi Arabia		
Syria	Mainly heroin, followed by cocaine	(Kobeissi 2014)
Tunisia	(2014, Tunis & Bizerte) Buprenorphine (99.5%), morphine (28%), heroin (17%), cocaine (14%)	(Bouarrouj 2015)
UAE	Heroin	(United Arab Emirates MoH 2014)
Yemen		

Table A6 Socio-demographic characteristics of PWID

<- Table A6 (Continued)

Countries	Study characteristics	Sample	Male sample	Age	Currently married	Education	Employment	Homelessness	Ever incarcerated	Source
Afghanistan	(2012) Five cities	1163	?	Most age group: 18-30	36.5-61.4%	Uneducated: 40.1-65.7%	Unemployed: 0-17.4%		26.5%-74%	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria										
Bahrain										
Egypt	(2010) Two cities	560	100%	Median: 27 & 34 Range: 20-64	29.3% & 48.7%	Less than secondary school: 49.8% & 66.1%				(FHI/Egypt MoHP 2010)
	(2014) 10 large cities	2,399	97.9%	36.9 ± 8.7	22.1%	Uneducated: 5.1% Up to 5 years: 34.8%	Unemployed: 10.9% Temporary jobs: 60.8%		79%	(Haghdoost and Danesh 2014)
	(2013) Six cities	420	97.4%	35.7 ± 8.5	18.8%	Uneducated: 4.3% Up to 5 years: 34.1%		32.2%	77.1%	(Radfar and Noroozi 2013)
Iran	(2012) Three cities	192	95.3%	36.0 ± 8.0	70.3%*	Uneducated: 8.9% Up to 5 years: 38.1%	Unemployed: 32.8%	10.4%	61.5%	(Iran MoH 2012)
nan	(2010) Three cities	226	100%	Mean age: 37 ± 1.1	61.0%*	Uneducated: 10.2%				(Alipour, Haghdoost et al. 2013)
	(2010) Three cities	42	0	Mean age: 33 ± 1	26.2%	Uneducated: 14.3%				(Alipour, Haghdoost et al. 2013)
	(2010) 10 provinces	2,546	97.9%	Mean age: 34.6 ± 8.9	30.5%	Uneducated: 6% Up to 5 years: 30.8%	Unemployed: 12.6% Temporary jobs: 39.1%		77.9% (last 10 years)	(Haghdoost, Osouli M et al. 2012)
Iraq										
Jordan	(2011) 4 cities	214	97%	Most age group: 25-30	36%	Uneducated: 19%	Unemployed: 14% Temporary jobs: 48%			(Shahroury 2011)
Kuwait										
Lobanon	(2013) One DTC	94	98.9%	>30 years old: 66%	27.7%	Low to moderate level: 78.7%	Unemployed: 25.5%			(Merabi, Naja et al. 2016)
Lebanon	(2014-15) Beirut	392	95.6%	Mean age: 31.7 ± 13.3	13.2%	Primary school or less: 67.3%	Employed or have income: 36.2%		75.2%	(Leb-18)(MENAHRA 2015a)
Libya	(2010) Tripoli	328	98.7%	>35 years old: 17.3%	12.1%	Less than higher education complete: 58.4%	Employed: 55.4%			(Mirzoyan, Berendes et al. 2013)
	2015 Nador	202	98.9%	Mean age: 38.5	19.4%	Illiterate: 11.5%	Employed: 32.1%	4%		(Morocco MoH 2015b)
	2015 Tangier	114	98.1%	Mean age: 37	22.4%	Illiterate: 6.9%	Employed: 42.2%	8.2%		(Morocco MoH 2015b)
Morocco	2013-14 Tétouan	221	97.5%	Median age: 39 Range: 21-60	20.7%	Primary school or less: 56.9%	Employed: 31.3%	5.1%	80.3%	(Morocco MoH 2014)
	2011-12 Nador	277	99.4%	Mean age: 36.7	21.1%	Illiterate: 15%	Employed: 50.9%	4.5%		(Morocco MoH 2012b)
	2010-11 Tangier	268	97.6%	Mean age: 36.1	20.1%	Illiterate: 6.4%	Employed: 43%	8%		(Morocco MOH 2012b)
Oman										
Pakistan	(2014)	3,840	97.3%	Mean age: 31.0 ± 7.5	33.7%	Uneducated: 30.0% Up to 5 years: 59.8%		Living in street: 19.5%		(AP Consultancies & Bridge Consultants Foundation 2014)
	(2011) 16 cities	4,956	98.4%	Mean age: 30.4 ± 8	33.8%	Uneducated: 57.1% Up to 5 years: 75.6%		Living in street: 47.6%		(Pakistan National Institute of Health 2012)
Palestine	(2013) Three governorates in West Bank	288	99.7%	16-64, Median: 41 Mean age: 39.2 ± 11.1	59.7%	Up to 5 years: 69%	Full or part-time employment: 26.2%		83.3%	(Jwehan, AbuRabie et al. 2014)
	(2010) EJ	199	98.5%	Mean age: 41.3 ± 8.1	66.5%	Uneducated: 5% Up to 5 years: 85.9%	Employed: 7.5% Part time job: 19.1%		93.4%	(Štulhofer and Chatty 2010)
Qatar										
Saudi Arabia										
Syria										
Tunisia	(2014) Two cities	802		Mean age: 35.9 ± 10.5	34.9%	Up to 5 years: 53.2%	Employed: 38.7%			(Bouarrouj 2015)
UAE										
Yemen										

* All participants had to have a sexual partner who was willing to participate in the study.

Table A7 HIV profile of the countries

Countries	HIV in GP or adult rate, epidemics	Cumulated HIV identified	Cases of HIV	HIV	Transmission routes other than injecting drug use ¹			
Afghanistan	HIV prevalence in GP: <0.1% Concentrated in PWID	(End 2015, Cu) 2088	(2015) Estimation of total number of HIV/AIDS: 6,900 (3,800-16,000) (End 2015) No. of deaths: 133 HIV identified in 2015: 212 HIV identified in 2014: 180		Women: (2015) Heterosexual: 68.4% (2014) Heterosexual: 66.7% Men: (2015) Heterosexual: 27.1% (2014) Heterosexual: 24.4% (2015) MSM: 18.1% (2014) MSM: 23.1%			
Algeria	HIV prevalence in GP: 0.1%	(End 2014, Cu) 9,103	HIV identified in 2014: 845 (47% women)		Heterosexual: >90%			
Bahrain	HIV prevalence in GP: <0.1%	(Cu) Bahrainis: 437 Non-Bahrainis: 1,609	HIV identified in 2013: 99 HIV identified in 2012: 90		(Cu) Heterosexual:33.0% (2012-13) Heterosexual: Over half			
Egypt	HIV prevalence in adults: 0.013% Concentrated epidemics in PWID and MSM	(End 2014, Cu) 4,631	No. of death: 1275 Egyptians (End 2010, Cu) Men: 79.6% HIV identified in 2015: 1,171 HIV identified in 2014: 891		(2010) Heterosexual: 46.2% Homosexual: 20.6%			
Iran	HIV prevalence in GP: <0.15% concentrated in PWID	(March 2016, Cu) 31,950 Men: 84%	(March 2016, Cu) identified AIDS cases: 10,674 (For 2015) Estimated No. of PLHIVs: 126,300 No. of death: 8,053 HIV identified in 2015: 1,613 HIV identified in 2015: 1,697 HIV identified in 2013: 1.794		(March 2016, Cu) Sexual route: 18%, Unknown: 11% 015) Newly identified cases: Sexual: 42%, unknown: 16%			
Iraq	Low prevalence	(End 2011, Cu) 615 Iraqi citizens: 309 (50%)	No. of PLHIVs: 59 HIV identified in 2015: 32 HIV identified in 2014: 22		(End 2011, Cu) Hemophilic by parental route: 66% Heterosexual: 17% (2015) Heterosexual: 75% (2014) Heterosexual: 54.5%			
Jordan	Low prevalence	(End 2013, Cu) 1,026 Jordanians: 28%	HIV identified in 2015: 20 HIV identified in 2013: 19 HIV identified in 2012:16 HIV identified in 2010 and 2011: 36 (2012-2013) Men: 83% (End 2013, Cu) No. of death in Jordanian PLHIV: 107		(End 2011, Cu) Heterosexual: 56.3%, MSM: 8.5% (2013) MSM: 58% (2012) MSM: 19%			
Kuwait	HIV prevalence in GP: <0.1%	(End 2014, Cu) 274 Kuwaiti Men: 74.5%	HIV identified in 2014: 22 Kuwaiti and 425 expatriates		(End 2014, Cu) Heterosexual: 70% in men and 77% in women			
Lebanon	2013) HIV prevalence in GP: 0.1% Concentrated in MSM	(End 2015, Cu) 1,893	HIV identified in 2015: 113 HIV identified in 2014: 109 HIV identified in 2013: 119		Sex: 81.4% (MSM: 34.5%, heterosexual: 15%)	(Lebar		
Libya	Low prevalence in GP (2011: 0.3% in blood donors) (2011) In population survey: 0.15% Concentrated in PWID and FSWs	(Cu) 10,557		Hete	Increasing trend toward sexual transmission erosexual ² : 17.6%, Homosexual ² : 0.9%, Unknown ² : 33.5%	(Libya M		
Могоссо	Low prevalence in GP (2012) Adult prevalence: 0.14% Concentrated in FSWs, MSM, PWID in some regions	(End 2015, Cu) 11,298	(2014) Estimated No. of PLHIV: 28,740 (20,000-37,000) HIV identified in 2015: 1,249 (49.6% were men) HIV identified in 2014: 1,312 HIV identified in 2013: 1,281	(End	2015, Cu) Men: Heterosexual: 77.6%, Homosexual: 11.5% (End 2015, Cu) women: Heterosexual: 91.5%			
Oman	Low prevalence	(End 2014, Cu) 2506 Omani	(End 2014) No. of PLHIV: 1,593 Omani Men: 70% HIV identified in 2015: 142 HIV identified in 2014: 112		(End 2014, Cu) Unknown: more than 20% Heterosexual: 51.1% Homosexual-bisexual: 13.9%			
Pakistan	Low prevalence in GP Concentrated in PWID and HSW	(End 2015, Cu) 17,015 Adult men: 81.6%	(2015) Estimated No. of PLHIV: 91,540 HIV identified in 2015: 4,098		(2015) Unknown: 71.3%			
Palestine	Low prevalence in GP: <0.1%	(End 2015, Cu) 87	(End 2015, Cu) No. of death: 50 HIV identified in 2015: 3 HIV identified in 2012: 5 HIV identified in 2011: 6 HIV identified in 2010: 0		(End 2014, Cu) Heterosexual: 56% Homosexual: 2.4% Bisexual: 4.6% Unknown: 13.1%	(Pales		
Qatar	Low prevalence in GP: <0.2%	(End 2015, Cu) 320	HIV identified in 2015: 16 HIV identified in 2013: 18 HIV identified in 2010-11: 14		(2015) From 16 new cases: Heterosexual: 10 Homosexual: 6	(Qatar S		
Saudi Arabia	HIV prevalence in GP: <0.1% Concentrated epidemics reported in PWID	(End 2014, Cu) 21,761 Nationals: 6,334 (29.1%)	HIV identified in 2015: 436 Nationals HIV identified in 2014: 1,222 (444 nationals) HIV identified in 2013: 1,777 (542 nationals)		(2015) Unknown in 68.2% of men and 65.5% of female Heterosexual: 25.8% in men and 26.4% in female (End 2015, Cu) Unknown: 53.9% Heterosexual: 32.7%			
Syria	Low prevalence	(End 2015, Cu) 845 Men: 61.5%	(End 2012, Cu) identified AIDS cases: 353 HIV identified in 2014: 23	(End	2015, Cu) Heterosexual: 77.6%, Homosexual: 9.4% of men (2014) newly identified cases: Heterosexual: 69.6%			
Tunisia	Low prevalence in GP: <0.1% Concentrated in MSM	(End 2015, Cu) 2,193	(2015) Estimated No. of PLHIV: 2600 (1700-3800). Men: 68.3% (End 2015, Cu) No. of death: 615 HIV identified in 2015: 163 HIV identified in 2011: 73 HIV identified in 2010: 65		(2015) Estimated No. of PLHIV: 2600 (1700-3800). Men: 68.3% (End 2015, Cu) No. of death: 615 HIV identified in 2015: 163 HIV identified in 2011: 73 HIV identified in 2010: 65		(2015, Cu) heterosexual: 46.3% (2012-13) MSM: 9% Sexual route is increasing	
UAE	Low prevalence		(End 2012, Cu) No. of PLHIV: 780 UAE nationals HIV identified in 2012: 55 among UAE nationals		(2011, Cu) Unknown: 43.4%, Heterosexual: 25.5%	(
Yemen	Low prevalence (2011, HIV size estimate) 0.2% in GP Concentrated in MSM	(End 2013, Cu) 3,763	(2013) Estimated No. of PLHIV: 35,000 HIV identified in 2013: 232 HIV identified in 2012: 261 HIV identified in 2012: 261		Heterosexual: 85% Homosexual: 6%			

GP: General population; **Cu**: Cumulative.

¹ The information on HIV transmission through injecting drug use is presented in Table 3.

² Data comes from a retrospective analysis of 227 HIV-related hospitalizations at Tripoli Medical Centre in 2013.

Source

(Afghanistan MoPH 2014, WHO Eastern Mediterranean Region 2016)

(Algeria MoH 2014)

(Bahrain MoH 2014)

(Egypt MoH 2012, Egypt MoHP 2015)

(Iran MoH 2016a) (Iran MoH 2015)

(Iraq MoH 2012, WHO Eastern Mediterranean Region 2016)

(Jordan MoH 2014, WHO Eastern Mediterranean Region 2016)

(Kuwait MoH 2015, WHO Eastern Mediterranean Region 2016)

non MoPH 2014, Lebanon MoPH 2016, WHO Eastern Mediterranean Region 2016)

MoH 2012, Daw, Shabash et al. 2014, Libya National Centre for Disease Control 2015, Shalaka, Garred et al. 2015)

(Morocco MoH 2015a, WHO Eastern Mediterranean Region 2016)

(Oman MoH 2015, WHO Eastern Mediterranean Region 2016)

(Pakistan MoH 2015a, WHO Eastern Mediterranean Region 2016)

stine MoH 2015, Lebanon MoPH 2016, WHO Eastern Mediterranean Region 2016)

SCH and HPDC 2012, Qatar MoH 2013, WHO Eastern Mediterranean Region 2016)

(Saudi Arabia MoH , WHO Eastern Mediterranean Region 2016)

(Kobeissi 2014, WHO Eastern Mediterranean Region 2016)

(Tunisia MoH 2015, WHO Eastern Mediterranean Region 2016)

(United Arab Emirates MoH 2014, WHO Eastern Mediterranean Region 2016)

(Yemen MoPH & Population 2012, Yemen MoPH & Population 2014)

Table A8 HIV surveillance data for the year 2010 (WHO Eastern Mediterranean Region 2011)

Countries	Identified acces	Fema	le cases	Transmission by injecting drug use		
Countries		No.	%	No.	%	
Afghanistan	342			152	44.4	
Algeria						
Bahrain	16	2	12.5	6	37.5	
Egypt	409	83	20.3	80	19.6	
Iran	1635	291	17.8	1121	68.6 (1.7)	
Iraq						
Jordan	12	3	25	0	0	
Kuwait	10	2	20	0	0	
Lebanon	21	3	14.3	0	0	
Libya						
Morocco	319	161	50.5	6	1.9	
Oman	119	50	42	1	0.8	
Pakistan						
Palestine						
Qatar	1	0	0	0	0	
Saudi Arabia	386	77	19.9	22	5.7	
Syria	46	25	54.3	0	0	
Tunisia	45	18	40	5	11.1	
UAE	25	4	16	1	4	
Yemen	237	72	30.4	1	0.4	
Total	3623	791	21.8	1395	38.5	

Table A9 Data from countries of the region on HIV prevalence among PWUD, since 2010

<- Table A9 (Continued)

Countries	Year	Place	No tested ²	Setting and method	Definition of PWUD ³	HIV prevalence (%)	Source	
	2015	Kabul & Mazar	16,975	?	?	0.2		
	2014	Kabul & Mazar	14,393	?	?	0.4	(WHO Eastern Mediterranean Region 2016)	
Afghanistan	2013	Kabul & Mazar	9,519	?	?	0.8	_	
	20121	Kabul, Herat, Mazar, Jalalabad, Charikar	1,163	Community, RDS	PWID (injected in L3M)	0.3-13.3 (Average 4.4)	(Johns Hopkins University and Afghanistan MoPH 2012)	
	2015	?	?	?	PWID	2.9	(Shaw, Hermez et al. 2016)	
Algeria	2014	?	95	Screening centers	PWID	1.1	(Algeria MoH 2014)	
	2011	National	58	VCT	PWID / referred for HIV testing	6.9	(Algeria MoH 2012)	
Bahrain	20111	Manama	151	Mandatory testing on admission to rehabilitation program	PWID	4.6	(Babrain MoH 2014)	
Daman	2010 ¹	Manama	181	Mandatory testing on admission to rehabilitation program	PWID	3.3		
Egypt	20101	Cairo & Alexandria	560 (275 & 285)	RDS	 PWID	6.8 & 6.5	(FHI/Egypt MoHP 2010)	
	2015	?	2174	?	 PWID	2.4	(WHO Eastern Mediterranean Region 2016)	
	20141	10 Cities	2,399 (58 females)	DICs and outreaches, DTCs	 PWID (injected in L12M)	13.8 (95% Cl: 9.4-18.2)	(Haghdoost and Danesh 2014)	
	20131	Six cities	420 (11 females)	DICs	 PWID (injected in L6M)	8.6 (From 0 to 18)	(Radfar and Noroozi 2013)	
	20121	Karaj, Isfahan, Gorgan	192 (9 females)	DICs and DTCs	 PWID (injected in L12M)	4.2	(Iran MoH 2012)	
Iran	20121	Arak	100 males	MMT clinic	 PWID (injected in L3M)	19	(Ramezani, Amirmoezi et al. 2014)	
	2010'	Tehran, Mashhad, Shiraz	226 males	DICs	 PWID (injected in L12M)	9.4	(Alipour, Haghdoost et al. 2013)	
	2010	lehran, Mashhad, Shiraz	42 temales	DICs	 PWID (injected in lifetime)	1.1		
	2010	10 provinces	2479 (62 females)	DICs and outreaches, DTCs	 PWID (injected in L12M)	Weighted: 15.1 (9.5-22.9)	(Haghdoost, Osouli M et al. 2012)	
	2009-10	Kongiloyen & boyerahmad	158		 PWID (Lifetime injection)	9.9	(llami, Sarkari et al. 2012)	
	2012-13	Amman	1943	Iwo drug treatment centers (NCHA & SAIC)			(Jordan MoH 2014)	
Jordan	2011	ŕ	1	Of all barain injectors admitted 22% tested for HIV at MaH (NICPA). 8 all	 FWID	Une case	(Jordan MoH 2012)	
	2010-11	?	?	admitted to the PSD (SATC)	?	Zero		
	2014		419	Treatment center	PWID and PWUD	Zero		
Kuwait	2012-13		1321 (Kuwaiti & non-Kuwaiti)	Treatment center	PWID and PWUD	Zero	(Kuwait MoH 2015)	
	2010	?	454 or 545?	On admission to prisons or treatment in APH	PWID	0.2	(Kuwait MoH 2012)	
	2014-15 ¹	Greater Beirut Area	339	Community, RDS	PWID (injected in LM)	0.26	(MENAHRA 2015)	
Lebanon	2012	?	956	Admissions in eight treatment and detoxification centres	PWID	0	(El-Khoury, Abbas et al. 2016)	
Libya	2010 ¹	Tripoli	327 (5 females)	Community, RDS	PWID (injection in LM)	87.1	(Mirzoyan, Berendes et al. 2013)	
	2015 ¹	Nador	202 (5 females)	Community, RDS	PWID (injected in L6M)	9.6	(Adverse Mall 0045h)	
	2015 ¹	Tangier	114 (2 females)	Community, RDS	PWID (injected in L6M)	0	(מטוטכט מטר 2013)	
	2013-14 ¹	Tétouan	221 (7 females)	Community, RDS	PWID (injected in L6M)	3.7	(Morocco MoH 2014)	
Morocco	2011-12 ¹	Nador	277 (4 females)	Community, RDS	PWID (injected in L6M)	25.1	(Morocco MoH 2012b)	
	2010-111	Tangier	268 (8 females)	Community, RDS	PWID (injected in L6M)	0.4		
	2010	?	?	?	PWID	14.0	(WHO, UNAIDS et al. 2011)	
	2010	Nador	?	?	 PWID	17.9	(UNAIDS 2011)	
	2015	?	277	?	 PWID	0.7	_	
Oman	2014	?	910	?	 PWID	0.5	(WHO Eastern Mediterranean Region 2016)	
	2013	?	780	?	 PWID	0.5		
	2004-15	Muscat	5345	Drug treatment center	 ?	4	(Ben Zaher Al Abri 2016)	
	2014	Faisalabad	80 (2 females)	Drug treatment center	 ?	38.8	(Dogar, Baig et al.)	
Pakistan	20141	Punjab	3,840	Community, multistage cluster sampling	 PWID (regular injecting in L6M)	Weighted: 36.8 Higher in Mandi Bahaudin & Faisalabad	(AP Consultancies & Bridge Consultants Foundation 2014)	
	2011	16 cities (National estimation)	4,956 (39 females)	(IBBS 4) Community, multistage cluster sampling	 PWID (regular injecting in L6M)	Weighted: 37.8 Higher in Faisalabad and Karachi	(Pakistan National Institute of Health 2012)	
Palestine	20131	3 governorates in WB	288	Community (time location sampling)	 PWID	0	(Jwehan, AbuRabie et al. 2014)	
	2010	EJG	199	RDS	 PWID (injected in LM)	0	(Stulhofer and Chatty 2010)	
	2015	?	7,184	Routine testing	 PWID	0.04	(WHO Eastern Mediterranean Region 2016)	
	20141	Riyadh and Damam	278	The largest DTC	 PWID	1.4	(Saudi Arabia MoH)	
Saudi Arabia	2010-11	?	111	The largest DTC	 PWID	8.1	_	
	2010-11	Riyadh	3,441	Admissions to AL Amal Hospital	 PWUD	0.6	(Saudi Arabia MoH 2012)	
	2010	?	2,925	Routine testing	 PWID	0.4		
Syria	2013-141	Damascus, Rif Damascus, Tartous, Lattakia	394	Community, RDS	 PWID	Zero	(Kobeissi 2014)	
	20111	National surveillance data	478	Mostly arrested or in prison	 PWID	Zero	(Syria MoH 2012)	
	2015	?	555	Testing services	PWID	3.6 (2.8-4.8%)	(Shaw, Hermez et al. 2016)	
Tunisia	20141	Iunis & Bizerte	802	HDS	 PWID	3.9%	(Bolariouj 2015)	
	2012	Iunis	23	Outpatient drug treatment center	 PWID	4.3%	(Derardi, Ben Ammar et al. 2013)	
	2011	Iunis and Bizerte	807	RDS	PWID	2.4 (1.1-3./)	(TUNISIA MOPH 2014)	

Missing data for: Iraq, Qatar, UAE and Yemen

LM: Last month; L3M: Last three months; L6M: Last six months; L12M: Last 12 months; RDS: respondent-driven sampling. ¹ Studies are also included in Table 6.

² For those studies that the number of female cases is not mentioned, the information on gender distribution of the sample was not available. ³ In some of reports, although it was mentioned that HIV testing was conducted for PWID, due to large sample size, the study group might be PWUD, in general.

Table A10 Data from countries of the region on the prevalence of HCV and HBV infections among PWUD, since 2010

<- Table A10 (Continued)

Countries	Year	Place	No tested	Setting	De	efinition of PWUD	Tests	Prevalence (%)
Afghanistan	2015	Kabul & Mazar	15,754 16,131	?		?	HCV HBV	5.1 1.5
	2014	Kabul & Mazar	13,190 13,572	?		?	HCV HBV	9.7 2.5
	2013	Kabul & Mazar	7,275 7,356	?		?	HCV HBV	14.4 3.9
	2012 ¹	Kabul, Herat, Mazar, Jalalabad & Charikar	1,163	Community, RDS	PV	VID (injected in L3M)	HCV HBS-Ag	9.5-70.0 3.2-8.3
	1995-2012	Various areas	8,139	Systematic review of 14 studies		PWID	HCV	32.6 (Rage: 9.5-70) (95% Cl 24.5-41.3)
Algeria								
Bahrain								
Egypt	_							
	20121	Karaj, Isfahan, Gorgan	192 (9 females)	DICs and DTCs	PW	/ID (injected in L12M)	HCV HBS-Ag	26.6 1.6
	20121	Arak	100 males	MMT clinic	PV	VID (injected in L3M)	HCV HBS-Ag	56 6
Iran	20101	Tehran, Mashad, Shiraz	226 males	DICs	PW	/ID (injected in L12M)	HCV HBV	38.6 3.6
	2010 ¹	Tehran, Mashhad, Shiraz	42 females	DICs	PW	ID (injected in lifetime)	HCV HBS-Ag	36.6 7.3
	2009-10	Kohgiloyeh & boyerahmad	158	?	PW	ID (injected in lifetime)	HCV	42.4
	2009-10 ¹	Southern Khorasan	59	Three prisons		PWID	HCV HBS-Ag	20.3 8.5
	2001-12	Various areas	4,972	Systematic review of 14 studies		PWID	HCV	45 (95% Cl 37–54%)
Iraq	_							
Jordan	2012-13	Amman	1943	Two drug treatment centers (NCRA & SATC)		All admitted PWUD	HCV HBV	2.9 0.5
Kuwait	2013-14	?	98	?		PWID	HCV HBV	54.1 4.1
Lebanon	2014-15 ¹	Greater Beirut Area	304	RDS	P	WID (injected in LM)	HCV HBV	27.6 2
	2013 ¹	Beirut	94 (one females)	Heroin dependents admitted to a treatment center		PWID	HCV	23.4
Lebanon	2013	Beirut	92 (3 females)	Heroin dependents admitted to a treatment center	5	Sniffers (non-PWID)	HCV	14.1
	2012	?	956	Admissions in eight treatment and detoxification centres		PWID	HCV HBV	27.7 0.67
Libya	2010 ¹	Tripoli	316	Community, RDS	P	WID (injected in LM)	HCV HBV	94.2 4.5
	20151	Nador	202 (5 females)	Community, RDS	PV	VID (injected in L6M)	HCV	71.9
	20151	Tangier	104	Community, RDS	PV	VID (injected in L6M)	HCV	74.5
Morocco	2013-141	Tétouan	212	Community, RDS	PV	VID (injected in L6M)	HCV	45.4
	2011-12'	Tapoior	277 (4 females)	Community, RDS	PV	VID (injected in L6M)	HCV	/9.2
	2010-11	?	485 485	?	FV	PWID	HCV	52.2
	2014	2	2207	2		PWID	HCV	24.1
Oman	2011		691			DWID	HBV	6.4
	2013	? Muscat	5345	2 Drug treatment center		?	HCV	47
	2011	?	2	Hospital-based DTCs		PWID	HCV	48
Pakistan	2012-131	Lahore	241	Community, snowball sampling		PWID	HCV	36.1
	2013 ¹	3 governorates in WB	288	Community (time-location sampling)		PWID	HCV HBS-Ag	40.6 6.6
Palestine	2010 ¹	EJG	199 (3 females)	Community, RDS		PWID	HCV HBS-Ag	42
Qatar							¢, ,	
Saudi Arabia	2006-12	Riyadh	357	Alamal hospital		PWID	HCV HBS-Ag	77.8 7.7
Syria	2013-14 ¹	Damascus, Rif Damascus, Tartous, Lattakia	394	Community, RDS		PWID	HCV HBS-Aq	3.3 0.5
Tunisia	2012 ¹	Tunis	23	Outpatient treatment center		PWID	HCV HBV	21.7 4.3
UAE								
Yemen								

Source

(WHO Eastern Mediterranean Region 2016)

(Johns Hopkins University and Afghanistan MoPH 2012)

(Chemaitelly, Mahmud et al. 2015)

(Iran MoH 2012)

(Ramezani, Amirmoezi et al. 2014)

(Alipour, Haghdoost et al. 2013)

(Sarkari, Eilami et al. 2011)

(Ziaee, Sharifzadeh et al. 2014)

(Malekinejad, Navadeh et al. 2015)

(Jordan MoH 2014)

(Kuwait MoH 2015)

(MENAHRA 2015)

— (Merabi, Naja et al. 2016)

(El-Khoury, Abbas et al. 2016)

(Mirzoyan, Berendes et al. 2013)

(Morocco MoH 2015b)

(Morocco MoH 2014)

(Morocco MoH 2012b)

(WHO Eastern Mediterranean Region 2016)

(Ben Zaher Al Abri 2016)

(Oman MoH 2012)

(Akhtar, Majeed et al. 2016)

(Jwehan, AbuRabie et al. 2014)

(Štulhofer and Chatty 2010)

(Alshomrani 2015)

(Kobeissi 2014)

(Belarbi, Ben Ammar et al. 2013)

Table A11 Main Researches on drug use since 2010¹

Country	Study year	Objective	Sample	Place	Report available ²	Source
Afghanistan	2010-12	Afghanistan National Urban Drug Use Study (ANUDUS)	2,187 households	11 Provinces	Yes	(Cottler, Ajinkya et al. 2014)
Algeria	2010	National survey on drugs in Algeria	?	?	No	(Abdennouri 2014)
Bahrain						
Egypt						
Iron	2013	National indirect estimation of illicit drug use	7,535	National	Yes	(Nikfarjam, Shokoohi et al. 2016)
lian	2011	Iranian national mental health survey (IranMHS)	7,900	National	Yes	(Amin-Esmaeili, Rahimi-Movaghar et al. 2016)
Iraq						
Jordan	2011	KAP study of PWID	214 heroin injectors	Four governorates	Yes	(Shahroury 2011)
Kuwait						
Lebanon						
Libya						
Morocco						
Oman						
Pakistan	2012	National study on drug use	51,453	National	Yes	(Pakistan's Ministry of Interior and Narcotics Control and UNODC 2013)
Palestine	2010	Assessment of drug use and HIV among PWUD	352 DUs (42% IDU)	West Bank, Gaza & EJ	Yes	(UNODC and AWARD 2011)
Qatar						
Saudi Arabia						
Syria						
Tunisia	2013	National survey on drug use in age 15-17	5,437	National	Yes	(Tunisia MoH and Pompidou Group 2014)
UAE						
Yemen						

This table does not include bio-behavioral surveys presented in Table 5.
 A specific report from the study has been available for the authors of this review.

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<- Table A12 (Continued)

Table A12 Survey results from countries of the region on risk behaviors of PWIDs

Countries	Year	Place	Sample size	Sexual Risk behaviors	Sharing risk behaviors	HIV Knowledge	Source
Afghanistan	2012	5 cities	1,163	Condom use at last sex: 23.4% Ever bought sex from a woman: 19.8-63.4% Ever sex with a man: 0-1.6% Ever sex with a boy: 3.5-25.0%	Ever shared N/S: 0.8%-36.0% Shared N/S in L3M: 0-23.7%	Ever heard of HIV: 49.5-95.2% Knowing condom as a protection for HIV transmission: 16.3-66.3% Adequate HIV knowledge: 0-39.1%	(Johns Hopkins University and Afghanistan MoPH 2012)
Algeria							
Bahrain							
Egypt	2010	Two governorates	560	Sex with a commercial partner in L12M: 10.5% and 11.2% in Cairo and Alexandria From above, condom use at last sex with a commercial partner: 24.6% Sex with a non-commercial regular partner in L12M: 63.6% and 63.8% in Cairo and Alexandria From above, condom use at last sex with a non-commercial regular partner: 4.8% Sex with a non-commercial non-regular partner in L12M: 22.2% and 32.8% in Cairo and Alexandria From above, condom use at last sex with non-commercial non-regular partner: 14.3% Exchanged sex for money: 13.1% and 10.8% in Cairo and Alexandria Ever MSM activity: 14.3% and 7.7% in Cairo and Alexandria	Injecting with used needles in LM: 30.7% and 79.8% in Cairo and Alexandria Injecting with a used needles of someone else in LM: 22.9% and 40.5% in Cairo and Alexandria	Ever heard of HIV: almost all	(FHI/Egypt MoHP 2010)
	2014	10 cities	2,399	Ever had sex: 84.1% From above, sex for money or drugs in L12M: 63.4% Condom use in last sex: 33.4% Ever sex with men (for men): 16.5% From above, ever condom use in sex with men: 10.7%	Sharing in LM: 27% Using sterile N/S in last injection: 78% Mean No. of injection partners in LM: 4.2	Ever heard of HIV: 93.5% Knowing shared injection as HIV transmission route: 88% Knowing condom as a HIV prevention mode: 88.3%	(Haghdoost and Danesh 2014)
	2013	Six cities	420	Ever had sex: 92.1% Condom use in last sex: 33.2% Ever sex with men (for men): 22% From above, ever condom use in sex with men: 13.4%	History of sharing syringes: 43.3% Sharing in L12M: 25% Using sterile N/S in last injection: 88.1%	Ever heard of HIV: 97.4%	(Radfar and Noroozi 2013)
	2012	3 cities	192	Condom use in last sex: 30.7% Ever sex with men (for men): 24.6% From above, ever condom use in sex with men: 15.6%	History of sharing syringes: 18.8% Sharing in L12M: 5.7% Sharing in LM: 4.7%	Ever heard of HIV: 78.6% Knowing condom as a HIV prevention mode: 73.4%	(Iran MoH 2012)
	2012	Arak	100	Sex with men: 1% Sex with men and women: 8% Sex with PWID partners: 14%	History of sharing syringes: 54% History of sharing syringes in prison: 25%		(Ramezani, Amirmoezi et al. 2014)
Iran	2010	3 cities	42	Used condom with primary sex partner in L6M: 57.1% Ever had sex with non-primary partner: 78.6% Average No. of partners in L6M: 2.5 ± 0.5	Sharing needles: 55%	Good HIV knowledge: 21.6%	
	2010	3 cities	226	Used condom with primary sex partner in L6M: 55.8% From the above, used condom in last sex: 63.8% Ever had sex with non-primary partner: 72.7% From the above: condom use in last sex with the above partner: 51.6% Sex with a man in LM: 19.5% Average No. of partners in L6M: 1.3 ± 0.3	Sharing needles: 39.1%	Knowing shared injection as HIV transmission route: 99.1% Knowing condom as a HIV prevention mode: 84% Good HIV knowledge: 22.5%	- (Alipour, Haghdoost et al. 2013)
	2010	10 provinces	2546	Ever had sex: 85% Married cases: Sex with wife in L12M: 58.9% From the above: used condom in last sex with wife: 34.1% From those ever had sex, sex without exchanging money with non-spouse in L12M: 29% From the above, used condom in last sex with the above: 43.1% From those ever had sex, sex with paid partner in L12M: 22.4% From the above, used condom in last sex with above: 53.3% No. of paid partner more than one in L12M: 71.1% From men ever had sex, ever had sex with a man: 14.4% From men ever had sex, had sex with a man in L12M: 3.1% From the above, used condom in last sex with a man: 41.5% From men ever had sex, ever had sex with a man for money/goods: 7.6% From men ever had sex, sex with a man for money/goods in L12M: 1.8%	Using non-sterile syringe in last injection: 9% Shared N/S in LM: 8% Shared other injection equipment in LM: 12% Ever incarcerated: 77.9% From those incarcerated, ever injected in prison: 26.3% From those ever injected in prison, injected with a used N/S in last injection: 72.7%, injected with a used other injection equipment in last injection: 62.5%	Ever heard of HIV: 96.9% Knowing shared injection as HIV transmission route: 98.6% Knowing condom as a HIV prevention mode: 94.6%	(Haghdoost, Osouli M et al. 2012)
Iraq							
Jordan	2011	4 Governorates	214	Condom use in last sex: 7%	used a syringe already used by another addict in last week: 63%	HIV knowledge: inadequate Knowing that sharing needles can lead to HIV and HCV transmission: 43% and 24% Knowing that sexual contact with an HIV positive person can transmit HIV: 65%	(Shahroury 2011)
Kuwait					It seems that sharing of injection equipment is common, both in community and in prison		(Kuwait MoH 2012, Kuwait MoH 2015)
Lebanon	2014-15	Greater Beirut Area	392	Ever sex with a woman (for men): 97.8% Ever sex with a man (for women): 70.6% Males giving or receiving money or goods or services for sex: 12% Ever having anal sex with a man (For men): 3.3% Sex with a man in past 12 months: 1.6% No Condom Use, for those reporting ≥1 partner: 65.2%	Sharing in last injection: 5% Ever injected in prison: 12.4% From above, shared in prison: 25%		(MENAHRA 2015a, Lebanon MoPH 2016)
Libya	2010	Tripoli	328	Ever had sex: 77% From above, past month sex: 22.9% (Condom use in last sex: 65.7%) From above, had sex with commercial partner: 19.6% From above, used a condom at their last sex: 79.7% Number of sexual partners in the past month (≥ 2): 5.8%	Ever shared N/S: 85% Shared in LM: 29% Shared in last injection: 18.2% Main source of needles: pharmacies (97%)	Good HIV knowledge: 45%	(Mirzoyan, Berendes et al. 2013)

<- Table A12 (Continued)

<- Table A12 (Continued)

Countries	Year	Place	Sample size	Sexual Risk behaviors	Sharing risk behaviors	HIV Knowledge	Source	
Countries	2015	Nador	202	Sex in last 6 months: 35.5% Condom use in last sex: 22% Sex for money or drugs: 19.3% Sex with non-regular partner in past 12 months: 31.7%	Sharing in past 6 months: 34.5% Using sterile needle in last injection: 73.8% Reuse their own syringes in past 6 months: 72%	Identified sharing as HIV transmission route: 97.5% Knowing condom as a protection for HIV: 97.5% Correct answer to all five questions regarding HIV:0%	(Maragoo MaH 2015b)	
Могоссо	2015 Tangier 114 Sex with n		114	Sex in last 6 months: 28.4% Condom use in last sex: 29% Sex for money or drugs: 12.9% Sex with non-regular partner in past 12 months: 25.5%	Sharing in past 6 months: 24.6% Using sterile needle in last injection: 72.2% Reuse their own syringes in past 6 months: 82%	Identified sharing as HIV transmission route: 96.8% Knowing condom as a protection for HIV: 72.7% Correct answer to all five questions regarding HIV:0%	(IVIOTOCCO MIOH ZU I 3D)	
	2013-14	Tétouan	221	Sex in past month: 29.7% Condom use in last sex: 31.4% Sex for money or drug in lifetime: 16.1% Sex with non-regular partner in last 12 months: 18.5%	Sharing in last injection: 18.3% Using sterile syringe in last injection: 74.1%	Identified sharing as HIV transmission route: 99.2% Do not recognize injection equipment materials as HIV risk: 25% Knowing condom as a protection for HIV transmission: 96.4%	(Morocco MoH 2014)	
	2011-12	Nador	277	Used condom in last sex:29.8%	Used sterile injection eq. in last injection: 69.1% Shared in last month: 36.2%		(Morocco MoH 2012a, Morocco MoH 2012b)	
	2010-11	Tangier	268	Used condom in last sex:32.8%	Used sterile injection eq. in last injection: 65.3% Shared in last month: 33.1%			
Oman								
Delister	2014	Punjab	3,840	Ever had sex: 75.0% Had sex with FSW in L6M: 10.2% From above, condom use in last sex with FSW: 19.0% Had sex with a MSW/HSW in L6M: 9.6% From above, condom use in last sex with MSM/HSW: 20.7% Sex for drugs or money in L6M: 14.3%	Sharing N/S in last injection: 15.2% Higher in women Always using new syringe in LM: 57.8% Never used new syringe in LM: 4.1%	Ever heard of HIV: 73.9% Know HIV can be transmitted by sharp instruments/needle: 54.9% Aware of sexual intercourse as mode of HIV transmission: 47.2% Know condom as a protection for HIV: 38.5%	(AP Consultancies & Bridge Consultants Foundation 2014)	
Pakistan	2011	16 cities	4956	Ever had sex: 93.2% Had sex with FSW in L6M: 13.9% From above, condom use in last sex with FSW: 28.4% Had sex with a MSW/HSW in L6M: 7.1% From above, condom use in last sex with MSM/HSW: 16.3% Sex for drugs or money in L6M: 15.3% High variations between cities	Sharing N/S in last injection: 39.2% Higher in women Always using new syringe in LM: 38.6% Never used new syringe in LM: 2.5% High variations between cities	Ever heard of HIV: 86.7% Know HIV can be transmitted by sharp instruments/needle: 75.6% Aware of sexual intercourse as mode of HIV transmission: 72.7% Know condom as a protection for HIV: 68.8%	(Pakistan National Institute of Health 2012)	
	2013	3 governorates in WB	288	Sexually active in L12M: 80.5% From above more than one sex partner in L12M. 15.5% Used a condom at most recent sexual intercourse: 29.2% Sold or bought sex, or exchanged it for drugs in L12M: 15.1% Condom use at most recent commercial sexual activity: 56.8% Anal intercourse in L12M: 33.0% From above, used a condom at most recent anal intercourse: 12.2%	Used sterile equipment in last injection: 68.9%	Good HIV knowledge (answering correctly to all 5 questions): 14.7% Identified sharing as HIV transmission route: 94.1% Knowing that washing used needles with water does not prevent HIV: 88.9%	(Jwehan, AbuRabie et al. 2014)	
Palestine	2010	EJG	199	Had sex in LM: 63.3% Used condom consistently in LM: 22.9% Using condom at most recent sex: 30.4% More than one sexual partner in the past year: 29.2% Sold sex in the last 12 months: 7.9%, condom use at last sex with a client: 49.1% Bought sex in the last 12 months: 17.5%	Sterile syringe in last injection: 89% Shared in the last week: 31.7%	Correctly identifies ways of preventing HIV transmission and rejects major misconceptions about HIV transmission: 17.4% Correctly recognized HIV transmission by syringe sharing: 95.5%	(Štulhofer and Chatty 2010)	
	2010	National	352 DUs	(n=352) Ever had sex: 88%, 48% of them with more than one partner Among sexually active users, never or almost never used a condom: 55% Condom use in last sex: 28%	(n=148 PWIDs) Ever shared needles: 47%, higher in West Bank More sharing in those inject in shooting galleries, less sharing in refugee camp (n=352) Injected in prison: 19% from those were imprisoned, Among those who injected in prison, sharing in prison: 22%, sharing in prison highest in EJ	(n=352) Aware of sharing injection as HIV transmission route:77% Aware of vaginal sex as HIV transmission route: 85% Aware of anal sex as HIV transmission route: 76%	(UNODC and AWARD 2011)	
Qatar								
Saudi Arabia								
Syria	2013-14	Four cities	394 PWIDs	Ever had sex: 95.7% Had sex in L12M: 89.1% Had sex with men in L12M: 19.3% Average sex partner in L12M: 11.2 Never condom use in L6M: 33% Always condom use in L6M: 3.6% Condom use in last sex: 6.1% Got paid for having sex with non-usual partner: 55.3%	Sharing in LM: 11.2% (Always: 4.6%, often: 6.6%) Used shared N/S in last injection: 19.5% Average number of people whom shared N/S in LM: 28.3 Always cleaned shared syringes before use: 14%	Ever heard of HIV: 98.5% Identified sharing as a root of HIV transmission: 95.2% Knowing condom as a protection for HIV transmission: 69.5%	(Kobeissi 2014)	
	2014	2 cities	802	Sex in L12M: 78.6% Sex in LM: 66.8% Sex under influence of alcohol or drugs: 76.3%	Not shared in LM: 79.1% Not shared syringes in last injection: 88.6% Sharing with multiple partners: 5.5%	Rejection of misconceptions about modes of transmission: 14%	(Bouarrouj 2015)	
Tunisia	2011	2 cities	807	Used condom in last sex: 19.3% (in <25 y/o: 32.3%, in >25: 15.7%) Engaged in sex trade: 28.3%	Not shared in LM: 70.4% Used new N/S in last injection: 87.7% (in <25 y/o: 90.5%, in >25: 87%) Access to sterile N/S.: 96.1%	Good HIV knowledge: 49.7% (Poor knowledge was important risk factor for HIV infection)	(Tunisia MoPH 2014)	
UAE								
Yemen								

Table A13 Availability of the HIV Counseling and Testing (HCT) and the beneficiaries

Countries	HCT centers	Clients of HCT centers	Source
Afghanistan	(2010) 11 centers		(Afghanistan MoPH 2012)
Algeria	Free HIV testing is available throughout the country	(2013) HIV testing: 68,779	(Algeria MoH 2014, Harm Reduction International 2014)
Bahrain	No VCT available		(Bahrain MoH 2014)
Egypt	(Last 7 years, end 2011) 23 Governmental units of VCT in 17 governorates (14 fixed and 9 mobile), available in 4 prisons	(Last 7 years, end 2011) Cu.: 35,000 clients	(Egypt MoH 2012)
Iran	(End 2014) 1,017 centers all over the country (in a variety of settings and in prisons)	(2014) 113,413 in public facilities	(Iran MoH 2015)
Iraq	98 centers (18 of which in Baghdad) No. of centers are constantly increasing.	(end 2011) Cu. No. of clients: 3819	(Iraq MoH 2012)
Jordan	12 centers, most in Amman	(2010) 134 clients in one year	(WHO, UNAIDS et al. 2011, Jordan MoH 2012)
Kuwait	Not available		(Kuwait MoH 2015)
Lebanon	100 VCT facilities	(2015) 970 clients in one year	(Lebanon MoPH 2016)
Libya	(2013-14) One center (NCDC reference laboratory in Tripoli, used primarily for confirmatory testing from other laboratories) and one mobile facility	(2014) 626 clients by the mobile facility	(Libya National Centre for Disease Control 2015)
Morocco	(2010) 103 centers all over country	(2014) 632,520 clients	(Morocco MoH 2012a, Morocco MoH 2015a)
Oman	Establishment of first VCT service in 2013		(Oman MoH 2014)
Pakistan	(2012) 16 sites nationally; (2014) 9 sites in Punjab		(Pakistan MoH 2012, AP Consultancies & Bridge Consultants Foundation 2014)
Palestine	Integrated at all PHC clinics at all directorates		(Occupied Palestinian Territory MoH 2014)
Qatar	One site in Doha		(Qatar MoH 2013)
Saudi Arabia	A VCT center in every region, mainly in hospitals new mobile VCT units in 8 cities, 24 hours hotlines for HIV counselling services		(Saudi Arabia MoH)
Syria	23 VCT centers	(2011) 1541 clients	(WHO, UNAIDS et al. 2011, Syria MoH 2012)
Tunisia	(2013) 25 Centers, VCT is available in prisons	(2011) 8573 clients	(Tunisia MoH 2012, Aounallah – Skhiri, Zalila et al. 2014)
UAE	Not available		(United Arab Emirates MoH 2014)
Yemen	(2013) 32 sites	5,378 clients	(Yemen MoPH & Population 2014)

Table A14 ART availability

Countries	ART sites	Number of PLHIV under ART	Source
Afghanistan	2 centers		(Afghanistan MoPH 2012)
Algeria		(Cu, 2014) 6,020	(Algeria MoH 2014)
Bahrain	One center	61	(Bahrain MoH 2014)
Egypt	11 sites in 11 governorates	(2014) 1715	(Egypt MoHP 2013, Egypt MoHP 2015)
Iran	162 clinics (including 60 in prisons)	(2014) 5,585	(Iran MoH 2015)
Iraq		8	(Iraq MoH 2012)
Jordan	Probably one center	111	(Jordan MoH 2014)
Kuwait		(2014) 248	(Kuwait MoH 2015)
Lebanon	One center	(2012) 536	(UNAIDS 2013, WHO Eastern Mediterranean Region 2016)
Libya	7 sites in four cities and one in prison	3,700	(Libya National Centre for Disease Control 2015)
Morocco	Six cities	(2014) 7498	(Morocco MoH 2015a)
Oman	15 sites throughout country	908	(Oman MoH 2015)
Pakistan	18 centers	5,019	(Pakistan MoH 2015a)
Palestine	2 centers	(2015) 26	(WHO 2016, WHO Eastern Mediterranean Region 2016)
Qatar	One center in Doha (HMC hospital)		(Qatar MoH 2013)
Saudi Arabia		(2014) 3094	(Saudi Arabia MoH)
Syria	14 centers	130	(UNAIDS 2011)
Tunisia	Four centers in different cities	(2013) 546	(Tunisia MoPH 2014)
UAE	11 Governmental centers throughout country	(2012) 299	(United Arab Emirates MoH 2014)
Yemen	5 centers in main cities	901	(Yemen MoPH & Population 2014)

Table A15 NGOs working on HIV prevention

Countries	NGO structure
Afghanistan	HIV prevention interventions are mainly provided by NGOs (A
Algeria	Few NGOs like AIDS Algeria are working on HIV prevention (
Bahrain	Few NGOs are active in HIV prevention among general population
Egypt	NGOS mainly involved for PWID and key populations: Fiftee Egyptian NGOs Network Against AIDS (ENNAA), National NC Caritas, Friends of HIV+ Association, Friends Association in Roayah Association for integrated development (Egypt MoH
Iran	Large number of NGOs, PLHIV, self-help groups and private
Iraq	Not active for key populations and HIV prevention (Iraq MoH
Jordan	57 CBOs and NGOs active in AIDS prevention including prev Zarqa, Irbid, Jerash and Al Mafraq are providing outreach se (FDIS) and Forearms Of Change Center to Enable Communi
Kuwait	Not active for key populations and HIV prevention
Lebanon	More than 50% of HIV interventions for PWID is estimated to provided by NGOs. SIDC and Skoun are providing NSP. The the regional knowledge hub for harm reduction.
Libya	Twelve NGOs were involved in HIV prevention in 2005. The N in the year 2014.
Morocco	Most HIV prevention for PWID is carried out by NGOs. Active aux Usagers de Drogues (AHSUD), Association marocaine of MoH 2015a).
Oman	Al-Hayat, the only NGO in Muscat that provided some HIV p
Pakistan	Since the beginning of the HIV response; NGOs and CSOs h (Pakistan MoH 2012). Nai Zindagi and Organization for Socia
Palestine	Al Maqdese: NSP and condom distribution in Jerusalem and
Qatar	No NGOs working directly with key populations (Qatar MoH
Saudi Arabia	NGOs and CSOs are active in providing IEC prevention prog
Syria	Only two NGOs are known for their active role in HIV/AIDS c Family Planning Association. These key populations include: truck drivers, merchant marines, prisoners, and refugees (Ko
Tunisia	Three NGOs involved in NSP: Association Tunisienne de Lut la Toxicomanie (ATUPRET), Association Tunisienne d'Informa prevention for key populations (Aounallah – Skhiri, Zalila et a
UAE	No active NGO exists for key populations.
Yemen	Few number of NGOs active in HIV prevention (Yemen MoPh

Afghanistan MoPH 2014).

(Algeria MoH 2014).

ulation, but not for key populations (Bahrain MoH 2014).

en work together as part of the Network of Associations for Harm Reduction (NAHR), IGO "Youth Association for Population and Development" (YAPD), Al-Shehab, Freedom, Minya, National Association for Family and Society Development, Hemaya Project, IP 2013, Egypt MoHP 2014a, Egypt MoHP 2014b).

e sector are involved in harm reduction interventions.

H 2012).

evention for key populations. National NGOs in five main governorates of Amman, ervices to PWID (Jordan MoH 2014). Friends of Development and Investment Society hity (FOCCEC) work on PWIDs (MENAHRA 2015b).

o be provided by CSOs (Lebanon MoPH 2013). Addiction treatment is also mainly e secretariat of Regional NGO (MENAHRA) is in Lebanon and another NGO (SIDC) is

NGOs had become inactive in recent years. 17 NGOs were trained on HIV prevention

ve NGOs in HIV prevention for PWID in several cities: Association Hasnouna de Soutien de lutte contre le SIDA (ALCS), TheL'association de réduction de risque (RDR) (Morocco

prevention to PWID was shut down in 2015.

have been very active; involved in decision-making; NGOs are recipients of GF ial Development (OSD) are the main NGOs active in harm reduction.

id West Bank; Juzoor

12013).

grams, VCT, and half-way houses for drug treatment and support (Saudi Arabia MoH).

control efforts for key populations: Syrian Association of Red Crescent (SARC) and b: FSWs, heterosexual men with multiple sexual partners, MSM, young people, PWID, iobeissi 2014).

tte contre les MST et le SIDA (ATLMST/SIDA), Association Tunisienne de Prévention de lation et d'Orientation sur le SIDA (ATIOS). There are also other NGOs working on HIV al. 2014, Tunisia MOPH 2014).

H & Population 2014).

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