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APMG HEALTH

GLOBAL SUMMARY OF FINDINGS OF AN ASSESSMENT OF HIV SERVICES PACKAGES FOR KEY POPULATIONS IN SIX REGIONS

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AP	Asia and the Pacific
ART	Antiretroviral Treatment
BCC	Behavior change communication
CBS	Community-based screening
CBO	Community-Based Organization
CCM	Country Coordinating Mechanism
DSD	Differentiated Service Delivery
EECA	Eastern Europe and Central Asia
ESA	Eastern and Southern Africa
FGD	Focus group discussion(s)
FSW	Female sex worker(s)
GAM	UNAIDS Global AIDS Monitoring reports
GBV	Gender Based Violence
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HTA	High Transmission Area
HTC	HIV Testing and Counseling
IBBS	Integrated Bio-Behavioral Surveillance
IEC	Information, education and communication
KP	Key population(s)
LAC	Latin America and the Caribbean
LGBTI	Lesbian, Gay, Bisexual, Transgender, Intersex
LTF	Lost/Loss to follow-up
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa
MSM	Men who have sex with men
NGO	Non-Governmental Organization
NSP	Needle and Syringe (Exchange) Program
OST	Opioid Substitution Therapy
PEP	Post Exposure Prophylaxis
PEPFAR	The U.S. President's Emergency Plan for AIDS Relief
PLHIV	Person (People) Living with HIV
PMTCT	Prevention of Mother to Child Transmission of HIV

PR	Principal Recipient(s) of Global Fund funds
PrEP	Pre-exposure prophylaxis
PSE	Population size estimate(s)
PTSD	Post-traumatic stress disorder
PWID	Person **(**People) who inject(s) drugs
SLA	Service Level Agreements
SOGI	Sexual Orientation and Gender Identity
SOP	Standard Operating Procedure(s)
SR	Sub-recipient(s) of Global Fund funds
SRH(R)	Sexual Reproductive Health (Rights)
SSR	Sub-sub-recipient(s) of Global Fund funds
STI	Sexually Transmitted Infection(s)
SW	Sex Worker(s)
TB	Tuberculosis
TG	Transgender people
UIC	Unique Identifier Code(s)
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNODC	United Nations Office on Drugs and Crime
UTT	Universal Test and Treat
VMMC	Voluntary medical male circumcision
WCA	Western and Central Africa
WHO	World Health Organization

EXECUTIVE SUMMARY

The World Health Organization (WHO) and other international agencies have clearly outlined the comprehensive package of services which should be available the for key populations affected by HIV (KP), including men who have sex with men (MSM), people who inject drugs (PWID), sex workers (SW), transgender people (TG) and people in prisons and other closed settings. In 2017, the Global Fund contracted APMG Health to conduct assessments of the design, implementation, and monitoring of national HIV service packages for KP in 65 countries, across six regions in which the Global Fund has provided HIV grant funds. This report is a global-level analysis of those assessments.

Each of the country assessments consisted of an initial desk review of resources provided by the Global Fund Country Team for that country. In 32 of the countries, a follow-up field assessment was carried out to verify and expand upon data collected during the initial desk review. Most field assessments were conducted over five days, with the exception of five countries where ten-day visits were conducted. For each country, a selection of key populations (usually two) and sites (again, usually two) was made with guidance from the Global Fund Country Teams and Country Coordinating Mechanism (CCM). Table ES1 below summarizes the KP that were chosen and assessed in each country. Six regional reports have been produced and provide a summary of results from the countries assessed in that region, together with results of literature reviews on KP packages in that region. The regions were: Asia and the Pacific (AP), Eastern Europe and Central Asia (EECA), Eastern and Southern Africa (ESA), Latin America and the Caribbean (LAC), the Middle East and North Africa (MENA), and Western and Central Africa (WCA).

Table ES1. Key Populations Assessed in Country Visits

MSM	SW	PWID	TG	Prisoners
Afghanistan Angola Belarus Benin Cameroon Dominican Republic Georgia Guatemala Guyana Haiti Indonesia Kenya Kosovo Madagascar Malawi Mali	Angola* Armenia* Benin* Cameroon* Guyana* Haiti* Indonesia* Kenya Kyrgyz Republic Madagascar* Malawi* Mali* Morocco* Papua New Guinea* Sierra Leone*	Afghanistan Armenia Belarus Georgia Kenya Kosovo Kyrgyz Republic Moldova Morocco Nepal Pakistan Sierra Leone Ukraine Uzbekistan	Dominican Republic Guatemala Indonesia Nepal Peru Philippines Papua New Guinea	None[1]

[1] The key populations that were chosen for in-country assessment were selected by the Global Fund, in collaboration with the CCM in each country. Prisoners were not selected as a key population of focus for any of the in-country assessments.

Moldova Morocco Nepal Pakistan Peru Philippines Sierra Leone South Africa Sudan Togo Tunisia Ukraine	South Africa* Sudan* Togo Uzbekistan*			

*Indicates country assessment where female sex workers were the specific KP of focus

Table ES2. Other Countries Assessed[2] (Desk Review Only)

AP	EECA	ESA	LAC	MENA	WCA
Bangladesh	Azerbaijan	Botswana	Bolivia	Egypt	Burundi
Cambodia	Bosnia &	Lesotho	Ecuador	Iran	Cape Verde
India	Herzegovina	Mauritius	El Salvador	Jordan	Cote d'Ivoire
Mongolia	Kazakhstan	Seychelles	Honduras	Lebanon	Ghana
Sri Lanka	Tajikistan	Tanzania	Panama		Nigeria
Thailand		Uganda	Paraguay		
Timor-Leste					
Vietnam					

It is important to point out here that, in the 'desk review only' countries, APMG Health did not conduct an in-country assessment to collect data and information that could verify information summarized in the desk review, and desk reviewers were limited to the data and information provided by the Global Fund in the fourth quarter of 2017. Also, due to time restrictions of country visits, only two to three sites were selected for the in-country assessments. As a result, country assessments may not be nationally representative, and reports only speak to data available in the regions, districts, and cities that were visited or within other reports reviewed. Also due to time restrictions, only two out of a potential five key populations were assessed during in-country data collection in most countries.

In most countries, population size estimates (PSE) have been undertaken for at least two or three KP and, in many cases, these exercises have been repeated or otherwise validated, so that countries can feel fairly confident that their PSE are accurate. What is unclear, particularly for those countries that received only a desk review, is what methods were used both to generate and to validate the PSE. Country visits revealed a mixed response to questions about the development process and accuracy of PSE.

From these assessments, it is clear that much more is known today about the sizes and characteristics of key populations in many countries than was known five years ago. For instance, most MSM PSE in EECA have been carried out for the first time in the past five years. In many countries (both in EECA and parts of Africa), there were no officially accepted estimates of the MSM population until very

[2] All five key populations were assessed during the desk review process.

recently. Similarly, the number of African countries with PWID estimates and the number of countries globally that have separate PSE for MSM and TG have both increased even in the past three years.

PACKAGE DESIGN: RESULTS

It is notable and encouraging that most countries in this assessment have formally recognized at least MSM, SW, and PWID, and developed a package of services designed to meet the needs of each population, with clear consideration of the guidance provided in the *WHO Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations* (hereafter, the *Consolidated Guidelines*). Populations and services packages are outlined in the national reference document (e.g. National Strategic Plan for HIV, or similar), in most countries. In many cases, the inclusion of key populations matches the country's HIV epidemiological situation, though there is resistance in some countries to include MSM packages despite the likelihood that this population is being impacted by HIV. There is, however, some notable divergence from the *Consolidated Guidelines* across regions and populations.

Most importantly, some key populations are still not recognized by countries and therefore they remain without packages of services designed to meet their needs. This is the case for transgender people in the majority of countries assessed, with the exception that several Latin American and Asia & the Pacific countries have detailed designs for TG programming. In some cases other KP are excluded as well. It is impossible to design an appropriate package for a population that remains unrecognized or is poorly understood. This underscores the importance of all countries gathering and using improved data on TG and prisoners in particular. In LAC and some parts of Africa, there is also a need for better understanding and inclusion of PWID or people who use drugs (PWUD) in order to understand their service needs.

Where populations are recognized and packages designed for them, KP themselves are largely inadequately included in the design process. There is good evidence of collaboration between KP representatives and/or networks and other stakeholders in the design of some KP service packages in some countries. Many of the issues mentioned below can be at least partially solved through the full involvement of KP in the design process. It would be helpful for WHO, UNAIDS and the Global Fund to provide governments with capacity development assistance to support the implementation of existing guidance on the involvement of KP representatives and networks in the process of designing service packages for KP. Even between design process periods (which typically occur every three to five years) there may be opportunity for greater involvement of KP through the implementation of client feedback loops, which would provide a regular source for data to feed into design-related decisions when appropriate.

Sub-populations of KP may need specific goods and services that should be included in service package designs: these sub-populations include male and TG sex workers, women who inject drugs and adolescent KP.

Most assessed countries provided little detail in their national design documents on the quantity of prevention products (condoms, lubricant, injecting equipment) to be distributed to KP members, on methods to provide prevention commodities and services, testing, treatment, care and support and on frequency of availability of services. This is understandable given that many countries use Standard

Operating Procedures (SOP) documents to guide implementation of these programs and these issues are often covered in SOP. However, some countries lack specifications in both the design and SOP documents.

There is a recurrent issue of lack of, or inadequate definition of, what constitutes coverage with most interventions within most package designs. Only a few countries set out within their design documents the defined package of services that KP members should be able to access and the frequency of service delivery that should constitute effective coverage. In some cases, there is also a lack of clear definition of who is regarded as a member of the key population to be targeted by KP programming.

There is also a need for designs to better accommodate and support the involvement of KP in service delivery. Guidance from WHO (2018) states that "involving key population communities in service delivery will increase the reach and effectiveness of prevention, testing, treatment and care" and this should be specified – where feasible and safe for members of KP to participate – in service package designs. In particular National HIV Strategic Plan or accompanying SOP should describe provide guidelines for outreach that ensure the safety of both outreach workers and clients – an issue raised in focus groups with KP and key informant interviews with KP-led organizations in many countries. In addition, where e-outreach is to be used, the available guidelines on effective, safe and ethical practice need more consistent implementation (UNFPA, 2015).

Many countries still seem to be experiencing problems in consistently getting the right prevention commodities (including condoms and lubricant, treatment for PEP and PrEP, as well as clean needles and syringes for PWID), of the right quality, to the populations who need them most. Some countries set tight restrictions on the quantity of prevention products to be distributed each month to KP, well short of need and of optimal levels set out in international guidance.

Lubricant distribution is still seen as either optional or too difficult to include in condom distribution programs in about half of the countries assessed (for example, only 32 of 62 countries and 43 out of the 59 countries that identify MSM and SW respectively as a key population include lubricant in their package of services). This indicates a need for greater consideration of the WHO standards around condom programming and of the need to ensure that lubricant distribution accompanies condoms.

Needle-syringe programs (NSP) and opioid substitution treatment (OST) for PWID and prisoners are not sufficiently included in the service package of many countries. While three quarters of countries assessed have recognized PWID as a key population, only 84.8% include NSP in their PWID package, and fewer than 16.7% of assessed countries that list prisoners as a KP include NSP for prisoners. Likewise, OST is specified in only 76.1% of countries' packages for PWID and 40.0% for prisoners.

Pre-exposure prophylaxis (PrEP) and overdose prevention have not been added to packages in the majority of countries. The availability of voluntary HIV testing and ART is particularly important to reach 90-90-90 treatment targets, however, not all countries specify these interventions as part of key population packages.

Additionally, while most countries include some sort of behavioral interventions for most KP, there is a concerning lack of definition in most national reference documents, specifying what behavioral interventions entail. While many indicate behavior change communication or the distribution of IEC materials, lack of details and standards for what these entail, coupled with limitations in commodities

distribution noted above, call into question the reliability and/or efficacy of current prevention approaches in many countries.

Other complementary services addressing co-morbidities and related health needs require more careful consideration by the countries within the design of their service packages. In particular, STI services need to be made easily accessible to at least SW, MSM and TG. With emerging drug-resistance within TB epidemics it is critical that all countries include TB testing and treatment in service packages for all KP.

Activities to reduce the most prominent human rights barriers to KP access to HIV service package elements need to be included in designs. Few National HIV Strategy documents include the structural interventions recommended in the *Consolidated Guideline* in their service package designs. This need more attention. Specifically, KP representatives need to be supported to work with other stakeholders to define the greatest barriers to access for each KP and determine which of the UNAIDS/Global Fund list of activities to reduce human rights barriers[3] and attention to which of the critical enablers set out in the Consolidated Guidelines will work most quickly and effectively for their population. These activities should then be included as core elements of the KP service packages.

It is particularly noteworthy that most countries include few or no interventions for community empowerment of KP or to address violence. Yet, as discussed below in the Implementation section, the weakness of KP community systems is contributing to sub-optimal coverage of KP services, and violence continues to be raised as a major issue in KP focus group discussions in many countries. Despite the centrality of this activity to many UN publications on working with KP, the only references to KP community empowerment found in this assessment were to the establishment, funding or role of KP networks in a few countries. In some countries, there is an assumption that community system strengthening will lead to community empowerment, but this process is not explained, and the community systems strengthening (CSS) activities are not included within the guaranteed KP service packages. A major issue for most countries appears to be a lack of understanding of the value of KP community empowerment in meeting national targets for reducing or eliminating HIV infection, as well as averting AIDS-related death amongst KP living with HIV. Advocacy materials and capacity development is required to assist national stakeholders see the value of these activities.

There is a recurrent issue of lack of, or inadequate definitions of coverage with most interventions, within most package designs. In addition, only a few countries set out within their national reference documents the 'defined package of services' that KP members should be able to access, the frequency of service delivery and a clear definition of those regarded as members of the key population and therefore targeted by KP programming.

PACKAGE IMPLEMENTATION & COVERAGE: RESULTS

In most of the countries assessed in this exercise there are disconnects between the packages of services outlined in their national reference documents and what appeared on the ground in terms of accessible services. In some countries this is because elements of the packages outlined in the *Consolidated Guidelines* are not being provided at all (most significantly harm reduction for PWID,

[3] Described in Technical *Brief HIV, Human Rights and Gender Equality,* Global Fund to Fight AIDS, TB and Malaria (April 2017)

gender-affirming medical care for transgender people, PEP for sexual assault, reproductive health services for female sex workers, mental health services and alcohol and other drug treatment services). In all countries there were significant issues of coverage for particular key populations. There are also significant gaps between the stated packages and available services for some important sub-populations, most particularly younger KP.

Having said that, the availability of services for people from key populations appears to have benefited significantly from the work done on developing and disseminating the *Consolidated Guidelines* and associated implementation tools, and also from the pressure and funding that donors have exerted in countries where focusing on illegal or marginalized populations would have been difficult for governments. The downside of this is that much of the key population programming that is provided comes from donor funds rather than from the government, and has operated somewhat outside, or in enclaves within, the mainstream health system in many countries. Despite this, there are numerous examples of innovation to integrate HIV prevention, treatment, care, and support into national and jurisdictional health systems and services.

Data on coverage with a defined package of prevention services shows the following:

Table ES3: Average coverage with defined prevention package among countries for which coverage figures could be derived

MSM	SW	PWID	TG	Prisoners
37.9%	45.1%	39.6%	37.0%	Insufficient data

In terms of elements of services packages, condom programming is in place in all countries included in this report, though in many cases, without the provision of lubricant. There are however many problems with appropriate quality, consistency of supply, and availability of lubricant. There are problems in distributing the right condoms (in terms of quality and quantity) consistently to the right people at the right time. Stock-outs of various commodities persist in many countries due to fragile procurement and supply systems.

There is strong evidence of increased levels of HIV testing among KP. However, linkage to prevention, treatment, care and support programs remains suboptimal or inconsistent at best. There is evidence of widespread innovation in testing access models, particularly community-based HIV testing by peer outreach workers and self-testing trials. Many outreach NGOs and CBOs are regularly meeting the HIV testing targets set in their (usually donor-created) funding agreements and are recording individuals tested rather than number of tests, but there are persistent problems in many countries in regard to the linkage of newly-diagnosed KP living with HIV to onward treatment, care and support.

There are also problems with who is being tested. Some programs are regularly re-testing the same individuals every quarter and reporting this as meeting targets under their funding agreement. HIV positive yield levels in some programs are well below the KP population prevalence in that area, indicating that the models they are using are not allowing them to reach under-diagnosed sub-populations.

Many NGOs report having to reduce the range of services they provide under pressure to meet ambitious testing targets. Pressure to meet ambitious testing targets leads to blanket testing approaches that focus on volume rather than on targeted approaches that use reliable information about where to reach KP at highest risk for HIV infection. The latter is only possible through meaningful partnerships with KP-led community-based organizations that know and are trusted by their respective constituents. NGOs and communities complain that there is little time and insufficient resources to work on critical enablers like reducing and responding to violence, providing drug and alcohol treatment, mental health services and improving economic security. They also report having limited resources for advocacy for enabling political and legal environments.

Social media outreach to KP is increasingly becoming an essential element of services but requires standardization and guidance. There are issues with ethics, privacy and security that need to be addressed. There is still a resistance among some KP to undertaking a HIV test. Prevention-focused KP NGOs rarely appear to provide positive information or campaigns on the benefits of knowing your status, the advances in ART and living well with HIV. Linkage to treatment and onward support for newly-diagnosed KP with HIV is inconsistent.

PLHIV support and case management models are generally under-developed, under-utilized and under-resourced. In some countries, HIV testing-focused NGOs are expected to refer newly-diagnosed KP with HIV immediately to PLHIV support organizations, with little attention to the effectiveness of referrals.

Linkage between HIV and TB services is reportedly improving for KP in many countries, but data are still unavailable in some countries. There has been a move towards 'Test and Treat' policies in many countries (immediate enrolment on ART for all who test HIV-positive), but some still lag behind on implementation, charging PLHIV in some cases for 'work-up' tests for ART initiation that lead to loss to follow-up due to economic hardship.

Community empowerment seems to have been a casualty of the increased focus on testing and of flat lined funding in general. Many of the KP NGOs consulted were finding it increasingly difficult to attract consistent core funding, let alone funding to pursue their broader goals in relation to advocacy, reduction of stigma and discrimination, legal support or economic empowerment. This has important implications for sustained capacity as funding fluctuations and a focus of funding on the lowest-paid staff members to ensure meeting HIV testing targets makes it difficult for KP NGOs to hire sufficient management staff to ensure quality and to provide any capacity development or career pathways for lesser-experienced staff and volunteers.

In general, attention to the critical enablers for KP programs set out in the *Consolidated Guidelines* is limited. KP groups report that the primary barriers to service availability and access are criminalization and policy conflicts. Harm reduction services are the biggest casualty here. Drug policies in many countries conflict with HIV policy, with a focus on criminal justice rather than health. This approach leads to a reduction in the availability or coverage of essential harm reduction services like needle-syringe programs, OST, naloxone and drug treatment. Prohibitions and fluctuations in law and policy in relation to sex between men and gender identity also threaten outreach services in some countries. Crackdowns on sex worker precincts and drug availability precincts also disperse key populations, eroding trust and making it harder to reach them with services.

Although it has been clear for many years that stigma, discrimination and violence are ever-present in the lives of many people from KP and serve as key deterrent to sustained engagement with health services, there are only scattered examples of consistent national programming in these areas. Sustained efforts to reduce stigma and discrimination by health services and by police and other uniformed services (the two main areas reported by KP in the consultations) are difficult to find. There are however some examples of sustained practice in this area, including for example systematic stigma and discrimination reduction programs in the Ukraine and systematic work in South Africa to introduce standards and accreditation for KP-friendly and high-quality services in government primary care clinics.

Violence against KP remains a key issue and consistent efforts to provide advocacy, prevention programs for key perpetrators, legal aid and clinical care for KP experiencing violence were also difficult to find. Post-exposure Prophylaxis (PEP) is rarely specifically available to KP experiencing gender-based violence. In some countries, recent crackdowns on drug use (the Philippines) and sex work (Indonesia) have seen increases in violence by police and security forces. KP peers involved in outreach programs in some countries also express concerns about harassment and violence associated with their work in communities.

KP organizations in several countries (Indonesia, the Philippines, Kosovo, Morocco) express concerns about providing services to young KP (particularly those below the legal age of consent for services). They reported being criticized by local government agencies for promoting homosexuality, drug use, sex work or the expression of gender identity. In some countries, these services are successfully advocating for lowering of the age of consent for services, for improved policies regarding guardian consent for services and for adapted service delivery approaches whereby health workers can act as legal guardians to enable access to services (e.g. HIV testing).

There is lack of sensitivity to sex and gender across the full range of population size estimation and epidemiological monitoring, design, implementation and service monitoring in most countries. This is particularly notable for PWID, where women are often inadequately included or altogether excluded from population size estimates, and then further excluded from package design and delivery because they remain an invisible population.

Key informants and focus group participants in some of the assessed countries report being involved in recent Global Fund-supported national assessments of human rights-related barriers to service access for KP (Benin, Honduras, Indonesia, Kenya, Kyrgyz Republic, Nepal, the Philippines and South Africa.) Five-year costed plans are under development to address human rights-related barriers in these countries.[4]

[4] These assessments have been conducted in 20 countries: Benin, Botswana, Cameroon, Democratic Republic of Congo (province-level), Cote d'Ivoire, Ghana, Honduras, Indonesia (selected cities), Jamaica, Kenya, Kyrgyz Republic, Nepal, Mozambique, Philippines, Senegal, Sierra Leone, South Africa, Tunisia, Uganda and Ukraine.

MONITORING

The process of monitoring the implementation of packages of services against their design is multi-faceted. As a part of this assessment process, there was a requirement to rate the unique identifier code (UIC)[5] systems used to monitor KP service packages. The results of this process show that 90% of countries assessed with an in-country visit have some form of UIC system. The list of all 32 countries with notes on their UIC systems appears in Annex 4 as Table A4. It should be noted that UIC systems in desk review-only countries could not be assessed due to the general lack of data held by the Global Fund on these systems.

The use of a national UIC is of great importance as it is one of the cornerstones of coverage calculations. Just as the PSE is the important denominator, the UIC leads to the construction of national coverage numerators. While it is excellent to see that 11 of 32 countries now have a UIC system that allows for de-duplication of results and hence can provide accurate numbers of clients receiving various services, it is a concern that the other 21 countries do not have this ability. In Table A5 in Annex 5, an attempt has been made to provide coverage figures that reviewers felt were the most reliable of the several available.

As with the other sections of this report, the results on monitoring are mixed. On the one hand, there are many more countries implementing UIC in at least some KP programming than was the case a decade ago but there is still much to be done before it is possible to state that the majority of the assessed countries have sufficient data to determine how the KP service packages are being implemented.

Accuracy of programmatic coverage data continues to be a concern. The validity of coverage data is still questionable for many programs in many countries. Even where a national UIC is in use, there may not be data aggregation processes in place to ensure that all data from all programs are brought together and de-duplicated to provide accurate coverage data. Similarly, a national UIC may be in place for one or more KP but the structure of the UIC may be different for each KP. This prevents analysis of service use by KP who may be for example, be both MSM and PWID, or TG and SW. The PSE issues outlined earlier mean that, even where numerator data are increasingly accurate, problems may remain with the denominator.

Coverage with a defined package of services is difficult and rarely recorded well. A UIC alone cannot usually capture the full set of items on the list of HIV prevention, treatment and care services that should be made available to each KP, so most countries nominate a subset of HIV prevention activities plus HIV testing as the 'defined package of services' for that KP. The indicators currently used to capture data are insufficient to be able to confidently state that KP are covered with a defined package of services.

Data collection and data entry are highly inefficient in most countries. The use of paper and pen to collect data which then needs to be entered into computer programs – mostly Excel-based and often

[5] UIC here refers to a system, usually developed at the national or programmatic level, to provide an anonymous way of tracking service use. It usually does not incorporate national identification or health insurance or other formal numbers and is usually either alphanumeric (comprising several characters) or biometric (delinked fingerprints, iris scans). A national UIC is defined here as a UIC system that is used across the country and across all implementers of at least prevention services.

designed by the implementing agency – is very costly in terms of time, which could be more effectively spent on providing more services or increasing the reach of programs. Automation of various types – including software such as SyrEx and biometric systems and use of smartphones or other handheld devices can reduce the time required for data entry.

Security of data also remains a major concern. The recording of names and addresses of KP in a wide range of country contexts creates major risks for KP members. The poor security for storing this data exacerbates the risks.

In Global Fund funded programs data analysis is generally only carried out at the Principal Recipient (PR) level or not at all. It was clearly stated in most countries that data flows from sub-recipients (SR) to the PR then to the Global Fund. Any analysis that occurs is generally done at the PR level to explain problems or changes to the Global Fund. There is little evidence in many countries of data analysis being used by CCMs or national programs to drive programmatic improvement.

In addition, there are only rare examples of quality monitoring or of communicating and discussing data analysis with communities of KP. These processes are combined in some service delivery settings, where monthly or quarterly meetings are held of clients to discuss any problems with goods and services provided, and to share results of the program's work, asking for KP suggestions for improved service delivery. Such processes, implemented regularly, would be a key first step in the feedback loops described in the Design section of this report (Figure 9).

Data disaggregation remains rare. Most data on sex workers refer to female sex workers without specifying that this is the case. But in some countries, male and TG sex worker data are combined with female SW data, leading to an unrealistic picture especially of HIV prevalence. Behavior, risks and HIV prevalence among male, female and transgender SW can be very different so SW PSE, prevalence and coverage statistics need to be derived for each of male, female and transgender SW. A similar lack of disaggregation occurs for age disaggregation and sex and gender of PWID, and age disaggregation for MSM and TG.

Prisoner data remains very poor. As noted in the other sections, the low emphasis on prisoners as a KP is reflected in the lack of monitoring data in most countries.

FINANCE

Financing the delivery of KP packages was examined where possible during the country visits (but not in the desk review countries). Data on financing is sparse and general with little breakdown of the costs of various activities. Most prevention programs that focus on key populations globally rely substantially on donor funding. In many of the assessed countries, the only source of funding for prevention work with KP is the Global Fund and in some cases the US Government. Despite the current widespread reliance on external funding for much of the KP activity in many countries, there are several examples of NGOs and CBOs being funded by governments to participate in the KP response. Obviously, this is easier to achieve in countries where NGOs and CBOs are already an established part of the health system (like Papua New Guinea where NGOs and faith-based organizations deliver

around 50% of healthcare) and more challenging in countries where social contracting is not the norm.[6]

A 2017 global consultation on social contracting and HIV highlighted several good examples of KP NGOs and CBOs receiving grant funding and service contracts from national, provincial or city governments and playing a key role in KP service delivery. Some countries like Brazil, India and Mexico and Papua New Guinea have long-established social contracting mechanisms in their health systems. Other countries that have taken steps to open up opportunities for social contracting in HIV include Belarus, China, Croatia, the Former Yugoslav Republic of Macedonia, Guyana, Kazakhstan, the Kyrgyz Republic and Ukraine.

Another model that emerged from this assessment process is the funding of NGO KP service through government insurance schemes that provide an annual allocation per person with HIV for treatment, care and support. Love Yourself (an MSM organization operating in Manila) provides a one-stop-shop HIV, STI, TB prevention and care service for MSM. It also supports transgender clinics and includes legal aid in its services. As an accredited clinic under the Philippines health insurance agency PhilHealth, Love Yourself receives an annual allocation for each person with HIV on its register. This can be used to fund a range of health and welfare services.

GLOBAL CONCLUSIONS

The approach of promoting the development of HIV service packages for KP has been substantially successful. More countries have identified key populations for programming within their National Strategic Plans now than they did five years ago. More countries are implementing specific interventions to KP for HIV prevention, testing, treatment and care, and to address human rights barriers and co-morbidities. Most of the implemented activities are consistent with those recommended by WHO and other agencies as evidence-informed HIV-related interventions. More countries now know more about KP including population sizes, behaviors of KP, and how to reach and provide prevention and care services to KP. With more funding from international donors (and some increase in domestic funding) in recent years, more countries are reaching more KP with appropriate services and can measure the reach and coverage of these interventions.

While there is no doubt that the promotion of KP service packages has had an array of positive benefits, some of the issues observed during country visits suggest that there may be limits to the usefulness of standardized packages which have been put in place by most countries. Three trends in particular point to the need to consider changes to the way packages are designed and implemented.

The first and most obvious is the reduction of growth in HIV spending globally, particularly from international donors. This trend in funding means that most countries are striving to achieve efficiencies in service delivery and, in particular, in outreach and peer education activities, as these often involve the

[6] Social contracting is defined as the process by which government resources are used to fund entities which are not part of government (called here civil society organizations, or CSOs) to provide health services which the government has a responsibility to provide, in order to assure the health of its citizenry (Open Societies Foundation, Global Consultation 2017)

largest workforce and are more difficult to integrate financially into existing health systems. This has led to the second trend in which outreach workers and/or peer educators have become mostly delivery systems for health products (condoms, lubricant, injecting equipment, IEC materials), data collectors and HIV test promoters. The third trend is that there is a small group of the reviewed countries with a very mature response to KP – often having started 15 years ago or more – for whom the comprehensive service package, as promoted in the *Consolidated Guidelines*, may be too restrictive and may hamper creativity and local problem-solving.

The final conclusion of this report is that work done to date in Differentiated Service Delivery (DSD) needs to be strengthened and scaled up in order to assist countries (and stakeholders within countries) to turn the considerable guidance in this area into sustained good practice. This guidance includes the WHO *Consolidated Guidelines*, the KP-specific implementation guidance documents, the guidelines on HIV testing and HIV treatment and care. It also includes attention to the principles outlined the Global Prevention Coalition Roadmap (UNAIDS 2017b) and in the Decision Frameworks for ART service delivery for key populations and for HIV testing (International AIDS Society 2018, 2018a). A differentiated approach to service packages (as set out in the *Consolidated Guidelines* and supporting implementation guidelines) is likely to be the most beneficial, but has been difficult to achieve in practice.

Coverage for most interventions is low across the regions and there appear to be particular problems in testing sufficient numbers of the right people and, where they test positive, linking them to care in most countries. This finding, coupled with the findings related to stigma and discrimination, violence, legal issues and so on suggests that there is a need for change.

One important distinction to be made is between prisoners and all other KP. Prisoners (or those in other forms of detention including compulsory rehabilitation) are, by definition, institutionalized. There are very limited ways that critical enabler activities such as community empowerment and stigma reduction can work within these settings. Concepts such as voluntary HIV counselling and testing, confidentiality of test results and of treatment, and even outreach, may be unrealistic in closed settings. For this reason, the current advice from UNODC and partners (2013) should continue to be followed, but donors and governments must ensure significant resources are provided to designing and covering 90% or more of prisoners with a defined package of services.

It is also important to differentiate geographically. It may be useful to conceptualize a country as consisting of areas of high concentration (AHCs) of a particular KP, usually in larger cities, areas of lower concentration (ALCs), often in peri-urban areas, and rural KP. Services could be designed to match these circumstances with perhaps:

- KP-led or KP-involved organizations (including clinics and ART distribution) in AHCs using a constantly expanding model of testing untested KP together with ongoing prevention for those who are negative and strong linkage to (and possibly provision of) care.
- A cohort approach (such as that used by Lifeline in South Africa) which tries to keep in regular contact with all KP members in ALCs, and where testing is done mostly for new entrants to the KP in that area (as well as regular yearly testing of HIV-negative KP).
- Rural KP may require a quite different approach, relying more on health care workers.

- In all cases, reduction of stigma and discrimination among healthcare workers would be a key activity.

Another way to differentiate is along the axis of community empowerment. In some countries, KP were afraid to even meet with reviewers due to the possibility of police or vigilante raids. In such circumstances, to rely on community-led organizations may be not merely ineffective but dangerous to KP. Differentiation could include:

- In those countries where KP are already running effective organizations (or where a review shows that with some technical assistance this could occur), expand the range, role and activities of KP-led organizations.
- In those countries where KP cannot legally form NGOs, where the KP is generally not trusted to manage NGOs or KP representatives believe it would be too dangerous to start KP-led organizations, consider how to assure that NGOs led by people other than the KP involve the KP as much as possible in decision-making, planning, designing, implementing, monitoring and improving the quality of these organizations, with a long term goal of establishing a more favorable environment for service delivery and stronger inclusion of human rights interventions to mitigate risks in the short- and medium-term.

Differentiating along the axes above will lead to different types of service models in different places. Depending on the number of KP in a district and the existence KP-led or otherwise of KP-involved organizations, HIV testing can be diversified with greater levels of community-based testing, self-testing may be promoted and index testing may be easier for communities to do for themselves rather than rely on healthcare workers. Similarly, there may be expanded roles of KP organizations in ART delivery and treatment adherence support as well as prevention.

The role of KP in planning and implementing critical enabler activities may need to be different, depending on the level of experience of KP-led organizations in the country. In countries without these organizations, simply placing an individual on a CCM or planning group as a representative of all KP in the country is tokenistic and usually ineffective. At the least, training and technical support needs to be provided to such individuals and, if possible, national network-building should occur to ensure that KP representatives can, to at least some extent, represent the voices of the KP.

A final suggestion on differentiation is to assess the usefulness of service packages for specific sub-populations at higher risk. For example, should services offered be the same for men and women who inject drugs, for adolescent boys and men who have sex with men or for TG who sell sex and those who do not?

Whether differentiation occurs at the design and implementation levels or not, there certainly needs to be differentiation in monitoring of service provision. The process needs to begin with PSE that should, wherever possible, be accompanied by mapping. Another important point in PSE is to determine who exactly is being counted. The PSE should reflect the programming target, which may mean: active PWID (injected within the past 6 months, disaggregated by gender and aged under or over 18); active SW (earned the majority of their income from SW, or sold sex in the past 6 months, depending on how closely you want to target; or a number of sexual partners could be used; disaggregated by M/F/T and aged under or over 18); or, active MSM (more than one same-sex sexual partner in the past 6 months, disaggregated by aged under or over 18). TG populations are generally so small that the whole population can be considered, but there should be at least separate information on both TG men and TG women, and by those under and over 18.

There may also need to be differentiation of service coverage monitoring based on the acceptance by KP of using national identification, health or health insurance numbers for HIV prevention and testing activities. In those countries where a KP, through its network(s) or through seeking the advice of its population members, agrees to have national ID information collected, the UIC can be dispensed with and there is no need to develop joined or combined databases for prevention and treatment. However, it must be stressed that this can only occur for those KP (and that may not include all KP in the country) who agree to share this information. For other KP, such as those who are most stigmatized or whose behavior is subject to constant police raids, a UIC should continue to be used.

The standardized approach to KP package design and implementation was needed to bring many countries to the point where KP are the focus of resources and efforts to address the HIV epidemic. It is unlikely, however, that this approach will enable countries to meet Global Prevention Coalition targets of 90% coverage of KP as well as UNAIDS 90-90-90 targets. The highest numbers of PLHIV and those needing treatment in most countries are likely to be KP. It should be noted that most KP had only nascent global and regional networks when the WHO Consolidated Guidelines were first designed in 2013. Now, there are more KP networks with capacity built through Robert Carr Civil Society Network Fund (RCNF) and other funding and technical assistance sources. These networks should be resourced to work with international partners to develop guidance and capacity development strategies for further differentiated approaches to KP service packages.

A full set of recommendations coming out of this assessment is provided on the following pages.

RECOMMENDATIONS

	DESIGN RECOMMENDATIONS
Global Fund, WHO, UNAIDS and partners,	D1. Assist national stakeholders to use guidance on KP programming and service packages to ensure that they have documented KP service packages in their national HIV plans that are tailored to KP context and need. Include attention to the strengthening of involvement of KP representatives and/or networks. This process should take into account the differentiation processes suggested in the Overall Recommendations. D2. Develop/strengthen guidelines for differentiated approaches to KP service package design and implementation, including: • Prisoners considered separately from MSM, SW, TG and PWID • Differentiation based on geography/ mapping of KP • Level of experience of KP-led organizations • Potential roles of KP in planning services and in critical enabler activities. D3. Identify and advocate for resources for global and regional KP networks to work on the above guidance.
All countries developing new national strategies and plans for HIV	D4. Consider inclusion of all five KP defined by WHO. At a minimum, every national strategy should include service packages for MSM, SW and prisoners. If there is a belief that TG and/or PWID do not exist in the country, an investigation should be carried out to verify this. D5. Fully involve key population representatives and/or networks in designing KP service packages.

D6. Define and regularly (every 3-5 years) update packages of services for all key populations as part of the development of the national HIV strategy, and of a National HIV Prevention Plan and Results Framework[7].

D7. Provide detailed information in either the national strategy or Standard Operating Procedures (SOP) (or equivalent document) for each KP service package, including:

- The population for whom the package is designed: including definition of the population, and definition of any significant sub-populations for whom separate designs are developed;
- Elements of the designed package, potentially differentiated by site, gender and other criteria (see Overall Recommendations), including critical enabler activities;
- Estimated numbers of prevention products (condoms, lubricant, injecting equipment) to be distributed to individuals from KP;
- A range of methods to provide appropriately differentiated prevention commodities and services, testing, treatment, care and support with specific attention to outreach (including e-outreach), community-based service delivery especially of HTC and ART;
- Methods to ensure involvement of KP in achieving targets of critical enabler activities;
- Expected frequency of services: these should be targets against which progress can be measured;
- How coverage with a defined package of services will be measured;
- Feedback loops to monitor and control quality of commodities and services.

D8. Include lubricant with all male condom distribution.

D9. Ensure at least community needle-syringe programs and overdose management are included in every country where PWID are identified; ensure OST is provided in every country with a significantly large PWID population.[8] Include, where possible, needle-syringe, overdose management and OST programs in prisons in countries where PWID are identified in the community.

D10. Include PrEP for all KP at substantial risk of HIV infection as part of combination HIV prevention.

[7] UNAIDS is developing guidance documents on how to develop prevention plans and results frameworks for KP among the five pillars of HIV prevention. See https://hivpreventioncoalition.unaids.org/

[8] Set-up costs of OST are very high, compared to needle-syringe programs. These include ensuring availability of OST medications, interactions between the government and International Narcotics Control Board, training of staff, secure storage and transport of OST medications, need for doctors (usually) to prescribe OST medication.

	D11. Include TB testing and treatment in all service packages for all KP. While TB testing is often available to KP through the health system, its availability should be clearly specified in package descriptions. D12. Include other complementary services, addressing co-morbidities and related health needs as determined by meetings between national stakeholders and KP representatives and/or networks. Depending on diversity within each KP, a flexible approach may be utilized to provide different complementary services to different subpopulations or in different geographic regions.

IMPLEMENTATION RECOMMENDATIONS	
Global Fund, WHO, UNAIDS and partners	I1. Support development and promotion of quality, safety and ethical practice standards for social media outreach to KP: While there is rapidly increasing use of technology for outreach, practice in this area is inconsistent, with some peers posing as contacts for sex in order to arrange meetings with clients. Reporting of contacts also potentially breaches client confidentiality in some cases, where screen-shots are used as verification of contact. A clear set of quality and ethical standards needs to be developed, with provisions for protection of both outreach workers and clients. I2. Review guidance on programs and services for people who use drugs to reflect changing drug use patterns: This should include strategies for expanded access for OST for PWUD who still require this intervention and greater attention to the needs of women who use drugs. It should also address emerging (or sometimes long-standing) use of stimulants and non-injecting drug use, with attention to sexual risk behavior associated with these. I3. Develop/strengthen global and regional strategies to increase the level of support for resolving policy conflicts that affect service availability: This is especially true for conflicts between illicit drug policies and harm reduction service availability; legal and policy changes that affect the ability of agencies to provide information and outreach to MSM; policy changes and crack-downs on sex work localities that limit the ability of health services to access sex workers. I4. Support increased access to a full HIV service package in prisons and other closed settings: Global and regional assistance is needed to help countries put in place practical and effective strategies to serve this population. This should include the insistence that compulsory drug detention and rehabilitation centers must be closed, and should be replaced by voluntary, evidence-informed and rights-based health and social services in the community, as already stated and supported by WHO, UNODC and UNAIDS.

National governments, with external technical assistance as needed	I5. Advocate to shore up support for KP programming in countries (or jurisdictions within countries) where KP are being re-criminalized, or where crackdowns are resulting in reduced access to KP: This must be done on a reactive basis, with global partners mobilizing quickly and efficiently to lend assistance when necessary. I6. Support documentation of evidence of positive outcomes from police engagement in supporting HIV prevention needs. While this element is often supported using donor funds, its implementation is inconsistent, and the current evidence base is insufficient to shape programming. I7. Develop or strengthen strategies to engage countries in transition planning for the outreach (demand-creation) workforce that runs current KP programming. This includes global and regional assistance to assist countries to strengthen mechanisms for state funding of services delivered by CSOs. I8. Strengthen condom programs, ensuring consistent access to inexpensive or free, high-quality male and female condoms and lubricant. Condom use remains a key pillar of HIV prevention and persistent stock-outs, poor quality condoms, and lack of lubricant compromise uptake and efficacy. This must change. I9. Assure greater attention to effective linkage to treatment, care and support for newly diagnosed KP living with HIV, in order to maximize the health benefits of HIV testing. Access to HIV testing among KP is increasing significantly, but ambitious testing targets and new outreach models must be paired with linkage to care and the identification of a case management workforce. Responses must strive for improved targeting of testing to reach undiagnosed KP in sufficient numbers and differentiation of ART service models to better meet the needs of KP. A review of outreach and support service models may need to be conducted, to ensure that there are sufficient resources for linkage to treatment for newly diagnosed PLHIV and case-management models in place to cover at least the first three months following diagnosis. I10. Ensure that key populations have access to up-to-date information about HIV and the life-saving benefits of ART and clinical care, as part of prevention programming. Reduced availability of donor funds and a sharper focus on Test and Treat has meant that broad HIV information and prevention programs have been wound back in many countries. This is also relevant in relation to programs among school-age young people. There was an absence of up-to-date plain language HIV IEC materials in many countries and few resources to update them or conduct even targeting information campaigns. KP NGOs need to be resourced to support health-seeking behaviors, particularly among young KP, to address stigma and discrimination and to develop and disseminate messages and information about living positively with HIV.

	I11. Address issues of age of consent for services where they are preventing young KP from accessing services. Countries may need assistance to change consent laws, introduce policies that allow NGOs to engage with and support young KP and allow them access to services I12. Devote renewed attention to the drivers of HIV risk and transmission. Throughout this assessment, KP NGOs reported that they have fewer resources to work on the drivers of HIV risk and transmission – alcohol and drug use, gender-based violence, stigma and discrimination, mental health, STI and reproductive health. There were widespread gaps in service provision by governments in these areas also. Attention and resources need to be focused on filling these gaps. I13. At the country level, assess the efficacy of community-based HIV testing and self-testing models currently in use (as relevant), and/or develop national-level guidance for introducing or strengthening these models to expand access and improve testing quality. I14. Assure that PEP is available to KP survivors of sexual assault. PEP for sexual assault and improved access to sexual assault services for KP need to be widely available, particularly for female, transgender and male sex workers as a priority.
Global and regional KP networks, in collaboration with national-level KP NGOs	I15. Assist KP NGOs to secure resources to pursue broad health goals for their constituents, beyond a narrow HIV agenda. Issues include reduction of stigma and discrimination, responses to KP-related violence, GBV and other issues that increase service access obstacles for people from KP.
MONITORING RECOMMENDATIONS	
GF and other donors to KP programs	M1. Ensure that monitoring systems developed for funded programs provide sufficient data for GF Country Teams (CT) and other donor program managers to be able to determine realistic coverage levels of KP service packages. M2. Develop guidance for countries to provide meaningful data for desk review by GF CT and other donor program managers, including: • Detailed explanations from grantees of how and when PSE/mapping is carried out, including methods used and verification processes. • Definitions of KP, KP service packages and the defined package of services (including references in national documents).

	• Methods used by PR (and SR through PR) to gather data on service delivery, ensure de-duplication and calculating coverage against the national PSE. (Coverage against project indicators should be maintained but should be understood by all parties not to be a replacement for national coverage data). • Methods used by PRs to ensure project data is fed into national data systems. M3. Encourage countries to learn from the examples highlighted in Case Studies from Georgia (on combining UIC and ART databases) and from NACOSA in South Africa on assisting SR to analyze and discuss their data. M4. Develop standard, short lists of indicators to measure progress to reduce human rights barriers to HIV services (from Global Fund's current intensive Human Rights efforts).
UNAIDS and partners	M5. Re-examine GAM reporting requirements on KP service packages to determine whether countries can begin to report on a defined package of services, as outlined in this report. M6. Widely disseminate the results of work to develop indicators that measure the drivers, facilitators, manifestations and outcomes of HIV-related stigma and discrimination; and the work by the UNAIDS Reference Group on Estimates, Modelling and Projections to develop new tools that strengthen ownership of data on key populations within the national HIV estimates process. M7. Advocate for greater government attention to the funding, provision and monitoring of service packages for prisoners globally.
Governments and/or PRs implementing and reporting on KP service packages	M8. Follow established guidelines to develop population size estimations (UNAIDS 2010), together with national consensus processes involving substantial representation from the key populations concerned (not merely one or two key population representatives on a 20-member working group). From these processes, more accurate, agreed-upon PSE should be derived. M9. Ensure that IBBS studies are carried out to an appropriate level of quality to provide reliable data that can be used for decision-making (for example by following the guidelines in Global HIV Strategic Information Working Group Bio-behavioural Survey Guidelines for Populations at Risk of HIV, 2017). M10. Except in specific circumstances (outlined in Conclusions), all countries should continue to progress towards a single unique identification code for all key populations and a single database, preferably accessible online for both uploading data and

generating reports. The system of taking down client names and addresses (especially in paper registers but also electronically) should cease. The streamlining of data entry through the use of Syrex or similar products is highly recommended.

M11. Ensure that data collected by donor-funded programs, including by SR and PR of the Global Fund and USG-funded interventions, is fed into national-level data collection systems. This requires standardization of some of the elements of the packages and of some key indicators.

M12. Examine the examples highlighted in case studies from Georgia (on combining UIC and ART databases) and from NACOSA in South Africa on assisting SR to analyze and discuss their data to determine whether these would be useful. All agencies should be encouraged to analyze and use the data collected to drive decision-making. Capacity building will be needed for some agencies to help staff see the value in not merely collecting but analyzing service data and using this information as the basis for suggesting changes to services.

M13. Enhance quality monitoring and program improvement through regular meetings with clients to discuss problems with goods and services provided, and to share results of the program's work, asking for KP suggestions for improved service delivery. Feedback loops should be extended throughout the reporting system so that quality problems are quickly reported to the level at which action can be taken to remedy the situation.

M14. Ensure monitoring processes are differentiated, from PSE to program monitoring to improve the usefulness of data collected for programming. This should include mapping of KP hotspots, and disaggregation of PSE and coverage data of PWID, MSM, SW and TG into specific sub-populations, including:

- SW: by M/F/T and aged under or over 18
- MSM: by aged under or over 18
- PWID: by M/F/T and aged under or over 18
- TG: by TG women and TG men.

M15.Consider the role of national ID systems as a potential replacement for unique identification codes for some KP in some countries.

FINANCE RECOMMENDATIONS

Global Fund, WHO, UNAIDS and partners	F1. Support the collection of better data on domestic funding of KP programs, and better costing, particularly of integration models and realistic NGO management, supervision and quality assurance models. F2. Ensure sufficient funding for HIV prevention. Many KP implementing agencies consulted during this assessment had received significant reductions in Global Fund and other donor funding exactly at a time when they were expected to increase coverage with HIV testing and prevention services. While transition discussions were underway in many of these countries, there was little evidence in most countries of realistic transition plans that would secure (or increase) HIV prevention among KP. F3. Assist governments to identify sustainable funding mechanisms for KP services. Models of inclusion of KP in national health insurance schemes and NGO KP service accreditation need to be documented and assistance provided to national governments to examine and adapt these where possible. Other funding innovations also need to be identified and promoted. F4. Provide urgent assistance to establish or strengthen social contracting mechanisms. This includes the development of standard performance contracts, quality standards, accountability and feedback mechanisms and policy and program assistance to sub-national jurisdictions. F5. Support more detailed costing studies to assist countries to identify realistic costs for integrating KP services into national health systems. This will assist in transition and in advocating for social contracting policies.
Global and regional KP Networks	F6. Support global and regional KP networks to play a greater role in advocacy for sustainable finance, innovative models of service delivery and quality management. Effective, sustainable models exist in many settings and these need to be explored and promoted by global and regional KP networks.

INTRODUCTION

GLOBAL BACKGROUND

In 2017, key populations (KP) and their sexual partners accounted for approximately 40% of new HIV infections globally (UNAIDS, 2018). A range of policy and legal barriers and harmful social dynamics increase the HIV vulnerability of KP and undermine their access to HIV and other services. The criminalization of sex between men, sex work, drug use and HIV transmission, as well as high rates of incarceration, homophobia, trans phobia, violence and social marginalization, all serve to influence risk practices and undermine access to services. People from key populations often migrate to cities in search of safer and more secure communities (UNAIDS, UN Habitat 2015). Women in key populations face specific challenges and barriers, including gender-based violence (GBV) and poorly tailored services. These factors further intensify their vulnerability to HIV.

GLOBAL KEY POPULATION CONTEXT

There are five groups recognized by United Nations (UN) agencies as key populations at increased risk for HIV. Each has a significantly higher risk of acquiring HIV infection than the general population, globally. Sex workers (SW) face unsafe working conditions, barriers to negotiating condom use, violence and inadequate access to health care services, which all contribute to their increased HIV risk and burden when compared to the general population. The risk of acquiring HIV for female sex workers (FSW) was 13 times higher than adult women aged 15-49 years (UNAIDS, 2018). Transgender sex worker, male sex workers, and also male sex workers who have sex with men are subpopulations of sex workers who appear to be at extremely high risk of acquiring HIV. Sex workers also experience marginalization and increased vulnerability to violence globally (WHO, 2013).

In many settings, men who have sex with men (MSM) make up increasing proportions of new HIV infections. Gay men and other MSM were 28 times as likely to acquire HIV when compared to heterosexual men (UNAIDS, 2018). Men who have sex with men are disproportionately affected by HIV when compared to the general population in any country, but most notably in low- and middle-income countries. In these countries, MSM are 19.3 times more likely to be living with HIV compared to the general population (UNFPA, 2015).

There are far fewer reliable data on transgender people (TG), though the limited information available indicates that in 2017, TG women had a risk of acquiring HIV that was 13 times higher than adults aged 15-49 years (UNAIDS, 2018). The lack of more specific data, failure to record genders other than male and female, and other issues related to data collection system are associated with the violence, stigma, and discrimination experienced by this population (UNDP, 2016), as well as a long-standing failure by the public health community to recognize TG women as a population distinct from MSM.

People who inject drugs (PWID) are 22 times more likely to acquire HIV when compared to people who do not inject drugs. Injection drug use accounts for 30% of new HIV infections outside of Sub-Saharan Africa each year. PWID also have an increased burden of co infections, such as hepatitis and tuberculosis (UNODC, 2017), and are more likely to encounter arrest and imprisonment when

compared to people who do not inject drugs, which bring further risks of acquiring HIV. Many women who inject are at higher risk than men due to several gendered practices (such as men injecting first) in many cultures, and the links between injecting drug use and female sex work in many countries.

Finally, it is estimated that there are 10.74 million prisoners globally at any point in time, and this population has an HIV burden of up to 50 times higher than the general population and an increased risk of acquiring tuberculosis (TB) (UNODC, 2017; World Prisons Brief, 2018). Injecting drug use with unsafe equipment, risky sexual behavior and sexual violence are among the risk factors for HIV transmission in prison settings, combined with generally less access to quality health care than people outside prison (UNODC, 2017).

Addressing the needs of key populations in a systematic way is vital to achievement of global HIV targets. UNAIDS (2014 and 2014a) has called for the following targets to be reached:

Target Description	By 2020	By 2030
% of PLHIV tested and know their status	90	95
% of people with diagnosed HIV on ART	90	95
% of PLHIV on ART who achieve viral load suppression	90	95

In all countries with concentrated HIV epidemics and in most high-burden countries, these targets cannot be met unless the majority of key populations are assisted to access HIV testing and treatment and supported to adhere to antiretroviral treatment (ART).

In addition, the Global HIV Prevention Coalition issued the *HIV Prevention 2020 Roadmap* (UNAIDS, 2017a) that identified five pillars of strengthened HIV prevention. The *Roadmap* recommends that countries ensure that 90% of high-priority groups in high-prevalence settings and key populations access combination prevention.

Rationale for Key Population Service Packages

In 2014, the World Health Organization (WHO) issued *Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations*. This document brought together all previously existing guidance relevant to key populations and provided updates based on new evidence and recommendations. The guidelines aimed to:

- Provide a comprehensive package of evidence-based HIV-related recommendations for all key populations;
- Increase awareness of the needs of and issues important to key populations;
- Improve access, coverage and uptake of effective and acceptable services; and
- Catalyze greater national and global commitment to adequate funding and services.

In 2016, an updated version of the *Consolidated Guidelines* was issued to account for new evidence and recommendations available, in particular the inclusion of pre-exposure prophylaxis (PrEP) for HIV prevention for key populations at substantial risk of HIV infection, and overdose prevention including naloxone distribution for PWID.

The *Consolidated Guidelines* serve as a reference guide for creating packages of services for key populations, which ideally are integrated into national reference documents, including national HIV strategies and plans.

Overview of WHO Recommended Package of Services

A broad range of international partners was involved in the development and design of packages of services for key populations outlined in the *Consolidated Guidelines*. The recommended package of services, varying by population to meet specific needs, is built around the framework listed in Table 1, below.

Table 1. Summary of Service and Program Elements from Consolidated Guidelines for Key Populations (WHO, 2016)

Essential Health Sector Interventions	
1	HIV prevention (condoms. lubricant, PrEP, PEP, VMMC)
2	Harm reduction interventions for substance use, in particular needle and syringe programs (NSP), opioid substitution therapy (OST) and naloxone for overdose management
3	HIV testing and counselling (HTC)
4	HIV treatment and care
5	Prevention and management of co-infections and other co-morbidities, including viral hepatitis, TB, and mental health conditions
6	Sexual and reproductive health interventions
Critical Enablers	
1	Supportive legislation, policy, and financial commitment, including decriminalization of behaviors of KP
2	Addressing stigma and discrimination
3	Accessible, available and acceptable health services
4	Community empowerment
5	Addressing violence against people from key populations

The *Consolidated Guidelines* are complemented by implementation tools (based on WHO guidance) from multi-lateral partners, developed with KP participation. These tools – known in brief as the SWIT, MSMIT, TRANSIT, and IDUIT – are summarized as follows:

- SWIT ("Implementing Comprehensive HIV/STI Programmes with Sex Workers") was published in 2013. The SWIT includes recommendations on how to implement and provide service across six areas: community empowerment; addressing violence against sex workers; community-led services; condom and lubricant programming; clinical support services; program management and organizational capacity building (WHO, 2013).

- MSMIT ("Implementing Comprehensive HIV and STI Programmes with Men Who Have Sex with Men") was published in 2015. The MSMIT includes recommendations across six program areas: community empowerment; addressing violence; condom and lubricant programming; healthcare service delivery; using information and communication technology; and program management (UNFPA, 2015).

- TRANSIT ("Implementing Comprehensive HIV and STI Programmes with Transgender People") was published in 2016. The TRANSIT provides recommendations within the following five categories: community empowerment; stigma, discrimination, violence and human rights; services; service delivery approaches; and program management (UNDP, 2016).

- IDUIT ("Implementing Comprehensive HIV and HCV Programs with People Who Inject Drugs") was published in 2017. The IDUIT provides guidance on community empowerment; legal reform, human rights, stigma and discrimination; health and support services; service delivery approaches; and program management (UNODC, 2017).

The United Nations Office on Drugs and Crime (UNODC) has also developed a package of services for people in prison settings, which includes fourteen interventions: Information, education and communication (IEC); condom programs; prevention of sexual violence; drug dependence treatment, including OST; NSP; prevention of transmission through medical or dental services; prevention of transmission through tattooing, piercing and other forms of skin penetration; post-exposure prophylaxis; HIV testing and counseling; HIV treatment, care and support; prevention, diagnosis and treatment of TB; prevention of mother-to-child transmission of HIV; prevention and treatment of sexually transmitted infections (STI); vaccination, diagnosis and treatment of viral hepatitis; and, protecting staff from occupational hazards.

While it is clear that WHO and other international organizations have done significant work to outline the comprehensive package of services that should be available for MSM, PWID, SW, TG and prisoners, previous findings show that these populations rarely have access to the full range of recommended services (UNAIDS, 2015).

PROJECT BACKGROUND

The Global Fund contracted APMG Health to review the design, implementation and monitoring of national HIV service packages for key populations in 65 countries across six regions in which the Global Fund has provided HIV grant funds. Out of the 65 countries, 55 countries were selected based on the

Global Fund KPI2 (2014-2016) results, where key population size estimations were classified as 'nationally adequate' by 2016. The additional ten countries were selected based on discussions with the Global Fund regional teams and in consultation with global partners. The specific objectives of this assessment were:

1. To determine whether HIV service packages as designed in the national guidelines or supported by Global Fund programs are in line with international standards and guidelines (e.g. *WHO Consolidated Guidelines* and the population-specific implementation tools) and are appropriate to epidemiological context, available, accessible and utilized by relevant key population groups;
2. To examine the implementation of HIV service packages in reaching intended target groups, taking into account specific needs and vulnerabilities within sub-groups of key populations (e.g. age, gender, socio-economic status), along with the coverage and reported quality of these programs;
3. To assess whether the monitoring framework, tools and other mechanisms set up by implementation partners are appropriate to local contexts, and are used effectively to regularly report on programmatic coverage;
4. To examine the enabling environment and other factors facilitating and inhibiting the availability, accessibility and utility of intervention services; and,
5. To determine the degree to which financial resources are made available and used accountably for funding the implementation of service packages for key populations.

These objectives were pursued through a mix of desk reviews and in-country visits, as further described below. This report is a global analysis based on 33 country-specific desk reviews, 32 country reports, and six regional summaries[9] and aims to provide overall findings, analysis, and recommendations for the design, implementation, monitoring and financing that affects HIV service packages for key populations in the 65 selected countries across the world.

[9] Desk reviews (33 countries) and country reports (32 countries) are internal GF documents. Regional Reports, which provide regional overviews based on the countries selected in each region, are available for Asia and the Pacific, East and Southern Africa, Eastern Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, and West and Central Africa.

METHODOLOGY

DESK REVIEWS

This assessment began with 65 country-specific desk reviews, completed from September 2017 until January 2018, to provide findings related to the design, implementation, monitoring and financing of HIV service packages for the five key populations. These desk reviews were based on documents provided by the Global Fund's Country Teams. The main data sources provided for the desk reviews were:

- Global Fund Performance Framework
- Integrated Bio-behavioral Surveillance Survey Reports (IBBS Reports)
- National HIV Strategic Plans
- Monitoring and Evaluation Plans
- Global Fund Funding Requests & Concept Notes
- Global AIDS Monitoring Reports (GAM)
- Global Fund Program Update data
- Programmatic Spot Checks and Reviews

The date ranges for each country's dataset varied based on availability; in general, no data older than 5 years (i.e. from before 2012) were considered for assessment.

COUNTRY ASSESSMENTS

Out of the 65 countries selected for assessment, 33 countries received only a desk review. The remaining 32 countries received a desk review followed by a field assessment to verify and expand data collection and follow up on issues identified in the desk review.

Most field assessments were conducted over the course of five days, with the exception of six countries (Haiti, Indonesia, Kenya, Morocco, South Africa, and Ukraine), which received ten-day field visits. For each country, key populations and sites were selected by Global Fund Country Teams with guidance from Country Coordinating Mechanisms (CCM). Table 2 sets out a list of the 32 countries and the key populations and sites that were selected for in-country assessment.

In most cases, one international consultant and one local consultant carried out each in-country assessment. The majority of the data collected during the in-country assessments were collected through:

- An initial meeting with representatives of CCM, Principal Recipient (PR) and Sub-recipients (SR) working with key populations, and other key informants to discuss design and enabling environment issues;
- Visits to at least two sites for observation of the delivery of elements of the service package;
- Visits to SR/sub-sub-recipients (SSR) and other implementers to discuss implementation issues and to examine monitoring forms and systems;
- Additional key informant interviews;
- Focus group discussions with individuals from key populations: in each country, focus groups were held with representatives of the selected key populations;

- Debriefing meetings to present and discuss preliminary findings.

Table 2. KP packages assessed and sites visited for Country Visits, by Region

Country	KP Selected	Sites Selected
Asia and Pacific		
Afghanistan	PWID, MSM	Kabul
Indonesia	MSM, TG, FSW	Jakarta, Semarang & Denpasar
Nepal	PWID, MSM, TG	Kathmandu & Bhaktapur
Pakistan	PWID, MSM	Islamabad, Rawalpindi & Peshawar
Papua New Guinea	MSM, FSW	Port Moresby & Lae city
Philippines	MSM, TG	Manila & Cebu
Eastern Europe and Central Asia		
Armenia	PWID, FSW	Yerevan & Vanadzor
Belarus	PWID, MSM	Minsk & Vitebsk
Georgia	PWID, MSM	Tbilisi & Batumi
Kosovo	PWID, MSM	Pristina & Prizren
Kyrgyz Republic	PWID, SW	Bishkek & Osh
Moldova	PWID, MSM	Chisinau & Balti
Ukraine	PWID, MSM	Kiev, Lvov, Odessa & Dnepr
Uzbekistan	PWID, FSW	Tashkent city & Bukhara
Eastern and Southern Africa		
Angola	MSM, FSW	Luanda & Benguela
Kenya	MSM, FSW, PWID	Nairobi & Mombasa
Madagascar	MSM, FSW	Antananarivo & Mahajanga
Malawi	MSM, FSW	Salima & Dowa
South Africa	MSM, FSW	Johannesburg, Durban, Cape Town
Latin America and Caribbean		
Dominican Republic	MSM, TG	Santo Donimigo & Santiago de los Caballeros
Guatemala	MSM, TG	Guatemala City, Mazatenago, Escuintla
Guyana	MSM, FSW	Georgetown (Region 4), Region 5 and Region 6
Haiti	MSM, FSW	Port-au-Prince, Cap-Haitien, Saint-Marc
Peru	MSM, TG	Lima-Callao & Iquitos
Middle East and North Africa		
Morocco	FSW, MSM, PWID	Rabat, Casablanca, Marrakech, Tangiers, Tetouan
Sudan	MSM, FSW	Khartoum & Wad Madani
Tunisia	MSM, PWID	Tunis & Sfax
Western and Central Africa		
Benin	FSW, MSM	Bohicon, Cotonou
Cameroon	FSW, MSM	Yaounde, Douala
Mali	FSW, MSM	Kouremalé, Ségou, Kati
Sierra Leone	MSM, FSW, PWID	Freetown, Makeni, Lakka
Togo	MSM, FSW	Lome, Tsevie

Reporting Processes

For each of the 32 countries visited, a report was produced with detailed findings and recommendations. For each region, a regional report was also produced, providing analysis of trends and recommendations for consideration by decision-makers and programmers working across the region. For these regional reports, additional literature searches were conducted to determine the

availability of other papers on key population service packages in countries of the region not assessed at the country level by APMG Health teams. This global report provides a summary and analysis of the 32 countries assessed by in-country visits in all six regions, as well as data assembled through the desk reviews, as displayed in Table 3.

Table 3. Countries Assessed (Full Assessment & Desk Review-only), by Region

Region	ESA	WCA	AP	EECA	LAC	MENA
Desk Review + In-country Assessment (32)	Angola Kenya Madagascar Malawi South Africa	Benin Cameroon Mali Sierra Leone Togo	Afghanistan Indonesia Nepal Pakistan Papua New Guinea Philippines	Armenia Belarus Georgia Kyrgyz Republic Moldova Ukraine Uzbekistan	Dominican Republic Guatemala Guyana Haiti Peru	Morocco Sudan Tunisia
Desk Review Only (33)	Lesotho Mauritius Seychelles Tanzania Uganda	Burundi Cape Verde Cote d'Ivoire Ghana Nigeria	Bangladesh Cambodia India Mongolia Sri Lanka Thailand Timor-Leste Vietnam	Azerbaijan Bosnia Kazakhstan Tajikistan	Bolivia Ecuador El Salvador Honduras Panama Paraguay	Egypt Iran Jordan Lebanon

While a Limitations section appears at the end of this report, it is important to note here that, in the 'desk review only' countries, APMG Health did not conduct an in-country assessment to collect data and information that could disprove or verify information found in the initial desk review, and desk reviewers were limited to those data provided by the Global Fund in the fourth quarter of 2017. Also, due to time restrictions of country visits, only two to three sites were selected for the in-country assessments. Because of this, country assessments may not be nationally representative, and reports only speak to data available in the regions, districts, and cities that were visited or within other reports reviewed. Also due to time restrictions, only two out of the five key populations were assessed during in-country data collection in most countries.

The countries assessed were not selected on the basis of being a globally-representative sample, but as a result of a number of internal considerations within the Global Fund such as the need to report on specific Key Performance Indicators, the existence of separate assessments carried out by Global Fund or other partners in recent years, etc. Extrapolation of these results should be treated with caution.

FINDINGS

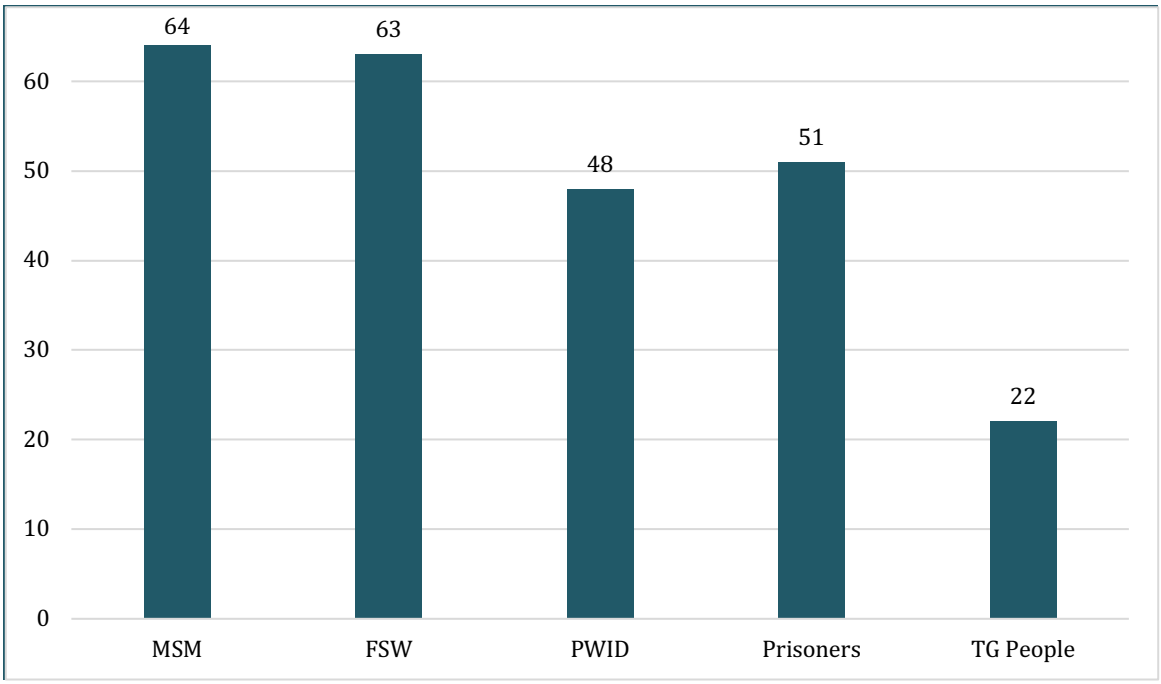
PART I: KEY POPULATIONS AND POPULATION SIZES

Population Size Estimates

The availability and adequacy of population size estimates (PSE) for key populations was a precondition for inclusion of a country in these assessments. Therefore, each country assessed had PSE for at least two key populations (see Annex 1 for complete PSE and HIV prevalence data captured, by country).

Figure 1 sets out the available PSE for each key population.

Figure 1. Number of Population Size Estimates found (out of 65)



It should be noted that a substantial number of the PSE were only carried out for the first time in the last five years. This suggests an important benefit of the work done by countries to define and implement key population service packages has been the increased number of countries carrying out PSE. Problems remain, particularly for PSE of TG (as many earlier PSE included TG women with MSM) and for estimations of MSM populations (see below).

General characteristics of the population sizes, HIV prevalence and other data related to each of the KP in the 65 assessed countries appears below. The full list of countries, together with PSE and HIV prevalence data (where available) for all KP, appears as Annex 1.

Currently, in most of the countries assessed, HIV prevalence data do not allow for disaggregation into subpopulations by age, gender or other demographics.

Men who have Sex with Men

Population size estimates for MSM were controversial in many of the assessed countries. The problems with MSM PSE can be seen in Annex 1 in Table 1A. Unlike PWID populations (which may be larger or smaller percentages of the population, based on drug traffic routes, availability of injectable drugs, culture etc.), the proportion of men who have sex with men within the general population is unlikely to be massively different from one country to another. However, a significant number of countries estimate an MSM population below (some of them well below) 1% of the adult male population. These countries are Afghanistan, Azerbaijan, Benin, Bangladesh, Botswana, Burundi, El Salvador, Egypt, Ghana, India, Kenya, Lebanon, Madagascar, Malawi, Mali, Nigeria, Sierra Leone, Sri Lanka, Tanzania, Uganda, and Uzbekistan. As noted in the Analysis section below, population size estimation can be particularly difficult for criminalized and stigmatized populations. These results suggest that PSE in at least the above-mentioned countries should be treated with caution.

HIV prevalence figures also vary widely, from Jordan (0.2%), Afghanistan and Bangladesh (both 0.5%) to 22.9% in Nigeria and 32.9% in Lesotho. These figures should also be treated with caution as they have been generated from various sources including small-scale surveillance studies as well as programmatic data, which may not be nationally representative. MSM data are also mixed with TG data in many countries and, as efforts progress to understand TG and MSM as distinct populations with differing risk factors and programmatic needs, a more accurate picture of MSM prevalence may appear.

In EECA and the African regions, MSM have only emerged as a population of focus for national strategies and programs more recently. Without incidence data, it is difficult to determine whether sharp increases in reported HIV prevalence among some MSM populations are due to increased transmission or more focused programming (leading to increased availability of HIV testing), or a combination of both. For example, in EECA, until the last five years, little testing was carried out among MSM in the region and few programs were available to reach, educate, provide prevention materials, and HIV testing for MSM. As these programs have expanded and significantly higher numbers of MSM have been tested, more countries have carried out IBBS studies in larger numbers of sites (ECOM, 2016).

The vulnerability of MSM to HIV infection is exacerbated by the legal environment in many countries. Of the countries assessed, same-sex sexual activity and relationships are criminalized in Iran, Ghana, Uganda, Sudan, Egypt, Lebanon, Morocco, and Tunisia (ILGA, 2017); in two of the countries (Iran and Sudan), it is a crime punishable by death. Stigma was cited in many focus group discussions held for this assessment as a key reason why MSM may not want to access health care services. The threat and experience of violence was also mentioned in many focus groups.

HIV prevalence levels among MSM should be treated with caution, given these circumstances of a recent increase in focus on MSM populations (and therefore generally small-scale programming when examined at a national level), potential under-estimates of population sizes, and legal, stigma and violence issues. An additional issue (addressed in the Conclusions section) is whether a PSE of all men who have sex with men is useful for target-setting and coverage measurement.

Sex Workers

PSE and HIV prevalence levels for sex workers vary widely among the assessed countries, with the additional problem that many countries do not specify whether sex worker data includes only female SW, or includes other sexes and genders, such as male and/or TG sex workers as well. A total of 62 countries provided PSE for sex workers. HIV prevalence range from 0.3% in Afghanistan and Bangladesh; 0.5-6% in Jordan and Bolivia, to 24.2% in Mali, 24.3% in Cameroon and 71.9% in Lesotho. HIV prevalence above 30% is also recorded in South Africa, Botswana and Uganda. HIV prevalence among SW in most EECA countries ranged from <0.1% (Armenia) to 3.5% (Tajikistan), with spikes in prevalence in some specific hotspots, such as 22.3% in Balti, Moldova.

It is important to note that there are exceptions to the general conflation of sex workers and female sex workers. HIV prevalence is disaggregated by gender in Peru (female sex workers 1.3% and male sex workers 14.6%) and in Guyana (female sex workers: 6.1%, male sex workers 5.5% and TG sex workers 9.7%).[10]

Globally, many sex workers live in environments of great hostility and are particularly vulnerable to violence perpetrated by clients, law enforcement officials and their procurers. Even in countries with a substantial history of sex worker empowerment activities, such as South Africa and Kenya, stigma and discrimination remain major obstacles to accessing HIV and other health services. During the in-country assessment in Sudan, participants of the FSW focus groups reported experiencing stigma from the general population, as well as among other FSW, based on both identity as a sex worker and on HIV serostatus. They reported fears of seeking medical care, due to stigma and discrimination from medical care providers. Participants gave several reports of doctors refusing care and dentists and other specialists refusing to operate and perform other invasive procedures once people disclose their positive HIV status. In addition, maternity wards sometimes refuse to accept pregnant women who are living with HIV. In Guyana, there were anecdotes of MSM under economic pressure who also engaged in opportunistic sex work. In one part of Guyana, the MSM interviewed had mostly been employed in the sugar industry, but recent closures of sugar refineries meant that they would either have to travel to another enterprise site for work or stay where they were and return to sex work as other forms of employment are not available.

Some countries have long recognized sex workers as being impacted by HIV and have managed to make progress in preventing and treating HIV among SW. Female sex workers were one of the first key populations to be identified and provided with services in Côte d'Ivoire, which is probably one of the contributing factors to the current high use of condoms with clients (81% in a 2014 IBBS).

There are complex issues related to sex worker identity, with implications for both estimation of programming needs and for planning and executing effective programming. Some women may trade or occasionally sell sex but not identify as sex workers (McMillan et al, 2018). These women may not be captured in population size estimates nor be adequately reached through programming, despite still being at significant risk for acquiring HIV. In Benin, waitresses are systematically associated with the FSW population in both IBBS and service packages. In Uzbekistan, the category "persons providing

[10] It is important to note the conflation of sex and gender in many settings where TG data are available. The authors of this report recognize that presenting male, female and TG data is not an accurate reflection of individuals' biological sex vs gender, and the accompanying risk factors. However, data are being reported as they are available from original sources.

sexual services for consideration" (PPSSC, which is the officially used terminology) includes all people who anonymously applied for testing through STI services, as well as those FSW who have been tested for HIV. This issue of defining SW for PSE is further addressed in the Conclusions section of this report.

People Who Inject Drugs

Only 45 of the 65 reviewed countries reported PSE for people who inject drugs (PWID). In EECA and Asia-Pacific (AP) regions, many countries have been calculating PWID population sizes for a decade or more and there is general agreement by stakeholders in many countries in these regions that the PSE are accurate. In many African countries and the few LAC countries however, where PWID PSE are available, the numbers are often very small and the PSE are based on anecdotes or small studies, so these should also be treated with caution. PWID PSE suffer from an issue common to SW estimates - the shifting nature of behaviors over time. Drug users often move through periods of injecting and non-injecting drug use and through periods, sometimes ultimately life-long, of no drug use. Similarly, due to drug trafficking routes, availability of injectable drugs, policing practices and drug using culture, injecting numbers may increase or decrease (or may increase in one area of a country while decreasing elsewhere) based on external factors.

HIV prevalence among PWID in the assessed countries varied from 0.2-3% in Lebanon and Bosnia and Herzegovina (BiH) and 2.2% in Benin, up to 24.8% in Cambodia, 25.1% in Belarus and 44.3% in Mauritius.

Among the countries assessed, PWID generally play one of two roles in the HIV epidemic. Either the epidemic has long been associated with this population and there is a robust history of harm reduction and other PWID-focused programming (as in EECA and some countries in AP) or, PWID are emerging as a key population of focus and data and information are still evolving to support comprehensive programming. The latter is the case in most African countries assessed, with the exception of Kenya, Morocco and Mauritius.

In EECA, Ukraine contributes a tremendous number of HIV cases among PWID in the region, with 22.6% prevalence amongst a sizeable population of 346,900 PWID (UNAIDS, 2018a). Population size is also a matter for serious consideration in the AP region. While injecting drug use may be relatively rarer than in EECA, because of relative populations sizes, AP is home to almost 40% of PWID worldwide (UNODC, 2018). Globally, an average of 11.8% of PWID are living with HIV, reaching 22.4% in Eastern and South-Eastern Europe (UNODC, 2018).

Even in settings where injecting drug use has long been acknowledged as intertwined with HIV, environments remain repressive and dangerous for PWID. There are some limited signs of progress and good practice in terms of creating an enabling environment for PWID, including development of Memoranda of Understanding with police on alternatives to arrest and options for engaging PWID in care (Kosovo) and decriminalization of drug use (Moldova). Unfortunately, these practices remain the exception not the rule and significant barriers exist to understanding the size and heterogeneity of PWID populations.

In Kenya, HIV prevalence is more than three times higher for PWID than for the general population - 18.7% among Kenya's 18,327 PWID (NASCOP, 2018). At the same time, no PWID PSE are available for several of the countries in ESA, including Angola, Malawi, Botswana, or Lesotho, and a seemingly-

unlikely estimate of 22 PWID exists for Uganda. In WCA, PWID are sometimes captured in a broader group of people who use drugs (PWUD). Of note, Côte d'Ivoire has identified people who use both injection and non-injection drugs (PWUD) as a key population and Médecins du Monde (2014) reports a HIV prevalence of 9.5% among this population in the capital city, Abidjan.

Very limited data were found in the countries assessed in LAC about the PWID population in that region. None of the in-country assessments included PWID as a population for assessment. Population sizes for PWID have not been estimated in most countries in the region due to the widespread belief that injection of cocaine and heroin is uncommon. This is thought to be because in the LAC region many illicit drugs are inexpensive and can be consumed economically through other modes of administration, though there is no reliable documentation to support this belief.

Transgender People

Very few countries outside the Latin America and the Caribbean and the Asia and Pacific regions provide PSE for transgender people. Only 22 national PSE were found for TG. Definitional issues existed here too. In most countries, only transgender women are addressed (if any TG are addressed at all) by programming, but it is not always clear if PSE of TG are restricted to TG women or included TG men or other, potentially non-binary populations. In addition, many countries include TG women in their MSM data, increasing the confusion about population size and HIV prevalence.

There are no HIV prevalence data on TG in the countries reviewed in the MENA, EECA or ESA regions. Where prevalence data are available – mainly in LAC and AP – HIV prevalence ranges from 1.1% in Bangladesh to 24.8% in Indonesia and 38.5% in the Dominican Republic. Of note, Guyana disaggregates all HIV prevalence data by age (TG youth 9.1% and TG adults 7.8%). Several of the countries in LAC also specify their data is specifically for TG women, not TG men.

In LAC and AP regions, stigma and discrimination are significant threats to the wellbeing of TG. The estimated 4,840 TG women in Guatemala experience high levels of social rejection and violence. Among the estimated 35,000 TG in Peru, rejection by family and society is reported to be common and leads to leaving school before completion, family abandonment, migration to larger cities, and to sex work as a main economic activity. The IBBS Trans Report 2016 from Dominican Republic shows that many TG have been physically attacked (16.6%), arrested (21.2%), or raped to avoid arrest (8.1%) in the 12 months prior to the survey. Regular sex work or complementary, occasional sex work is very common, with between 46.8% and 62.5% reporting being engaged in sex work in the previous week. This echoes the experience of the estimated 50,000 TG in Thailand, where 39% of young TG report ever selling sex for money or goods (UNICEF, 2015).

One exception to the general lack of data on TG in Africa is in South Africa: TG are not criminalized in South Africa and cross-dressing is also not criminalized. TG are protected by the following legal protections: i) constitutional prohibition of discrimination based on gender diversity; ii) prohibitions of discrimination in employment based on gender diversity; iii) legal recognition of a third gender; and, iv) other non-discriminatory provisions specifying gender diversity (South Africa GAM Report, 2017). Of the other African countries assessed, only Mauritius (1,407) and Sierra Leone (500) had separate transgender PSE, though a study of both transgender men and women was carried out in Benin in late 2017. No African country reports an estimate of HIV prevalence in this key population, with the exception of Angola, which reports a prevalence of 9.9%.

Prisoners

Compared with the other key populations included in this assessment, data on HIV among the prison populations in the six regions is much more limited. Prisoners were not selected as a KP of focus in any of the 32 countries visited during this assessment, so background information (including PSE and HIV prevalence) is limited to a review and analysis of documents made available for the desk reviews.

HIV prevalence levels in the assessed prisoner data are generally low from 0.07% in Afghanistan, 0.5% in Morocco and Belarus and 0.7% in Guatemala, to 6.4% in Panama and 6.7% in Tanzania. Outliers are the Kyrgyz Republic (11.3%) and Lesotho (31.4%). For Togo and Burundi, data show that female prisoners have a much higher HIV prevalence (14.3% and 5.0% respectively) compared with male prisoners (4% and 2% respectively).

While estimation of population size is less problematic than for other populations, there are questions about the robustness of epidemiological data, which may not be collected on a regular basis, or may exclude certain prisons serving sub-groups such as female prisoners.

Analysis: Do we know what we need to know about Key Populations?

From these assessments, it is clear that much more is known today about the sizes and characteristics of key populations in many countries than was known five years ago. For instance, most MSM PSE in EECA have been carried out for the first time in the past five years. In many countries (both in EECA and parts of Africa), there were no officially accepted estimates of the MSM population until very recently. Similarly, the number of African countries with PWID estimates and the number of countries globally that have separate PSE for MSM and TG have both increased even in the past three years.

In most countries, PSE have been undertaken for at least two or three KP and, in many cases, these exercises have been repeated so that countries are fairly confident that their PSE are accurate. What is unclear, particularly for those countries that received only a desk review, is what methods were used both to generate and validate the PSE. Country visits revealed mixed views among stakeholders about the accuracy of PSE.

Size estimation methodologies vary, with some countries employing multiple methods and developing widely divergent estimates and others relying on fairly simple multiplier methods. Sampling for PSE may be confounded by hostile environments, which provide individuals from key populations with a strong incentive to hide their identity and by the common practice in some regions of using clients of existing HIV prevention programs as a large part of the sample interviewed as part of the estimation process. Whilst good guidance exists about the benefits of participation of KP representatives in the process of PSE development and validation, the extent to which this is done in practice is not clear. As PSE are repeated, it would be useful to ensure that KP networks – where they exist – are involved in the process, where this can be done without risking harm to individuals. Where individuals or networks of KP are unable to be involved in the PSE process itself, they or their representatives should be invited to validation meetings to present the viewpoint of the community itself on the population size.

It should be noted that identity is, in itself, a complicating factor for characterizing key populations and their risk profiles. How or whether an individual is identified as part of a key population is related to both self-identity and sometimes ill-defined notions of risk behavior. One individual may ‘belong’ to multiple key populations; a gay man may inject drugs and occasionally sell or trade sex. At the same

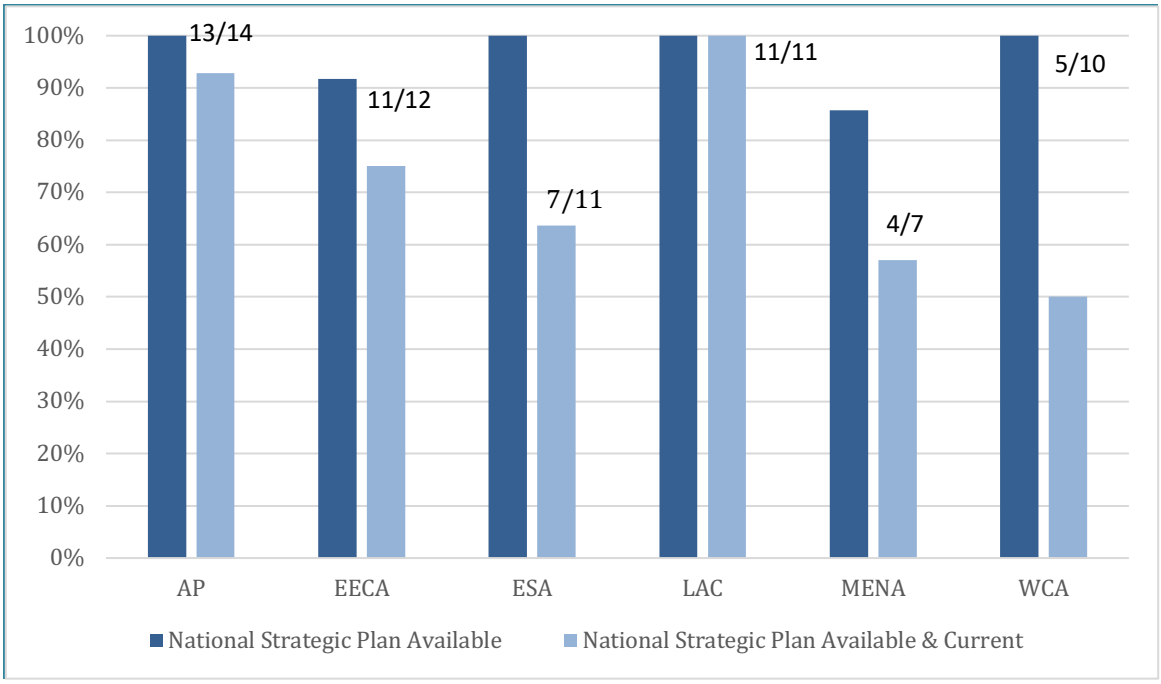
time, engaging in multiple risk factors does not necessarily correlate to identifying as a key population, nor to engaging as part of a community of others with similar risk factors.

In addition to PSE, a WHO review of KP service packages in 45 WHO Africa Regional Office (AFRO) countries states that efforts to strengthen strategic information systems should explicitly address strategic information for key populations and schedule periodic national assessments of the implementation of key population interventions (WHO, 2018).

PART II: DESIGN AND DOCUMENTATION OF SERVICE PACKAGES

Overall, most of the assessed countries have formally recognized some KP in their national reference documents, including HIV plans and strategies.[11] All of the countries assessed in LAC have current national strategic plans. Most of the countries assessed in AP, ESA, and EECA also have current national strategic plans or strategies. However, only 57.1% of the countries assessed in MENA and 60.0% of the countries assessed in WCA have current national HIV strategic plans or strategies. The lack of an up-to-date national HIV strategic plan or strategy is problematic. While it is possible that some services continue uninterrupted even in the absence of these guiding documents, this is poor practice and may leave many groups, including key populations, vulnerable to interruptions in service access.

Figure 2. National HIV Strategic Plans (Available and Current), by Region



Within national the national reference documents in the 65 countries assessed, SW are the most widely recognized key population, with 95.4% of all countries including them. MSM are next, at 90.8% of countries, followed by PWID who are recognized as a key population in only 70.8% of countries assessed. Only 30 countries (46.2%) recognize prisoners and only 21 (32.3%) include TG as a population distinct from MSM. Given the wide range of HIV epidemics experienced in the 65 countries assessed, it is reasonable that there are some differences in the key populations being addressed in national strategies. In particular, injecting drug use is only a widespread practice in a limited number of countries. However, it is hard to understand what types of epidemics would not require concentration on MSM and sex workers. The lack of focus to date on TG can be understood in the context of historical failure of donors and other standards-setting groups to recognize TG as a distinct population, and it is clear that combined MSM/TG programming may exist in many countries, even if

[11] These plans/strategies go by different names in different countries and are sometimes referred to in relation to other diseases or conditions such as infectious diseases or sexually-transmitted infections. By "national HIV strategies and plans", we are referring to either the National HIV Strategic Plan, the National HIV Strategy or their equivalent in that country.

TG are not recognized separately. It is a sign of positive change that almost a third of assessed countries have already included TG as a separate KP.

As noted in the section above on PSE availability, the lack of emphasis on prisoners as a key population is troubling.

Figure 3. KP included in National Strategic Plans (out of 65)

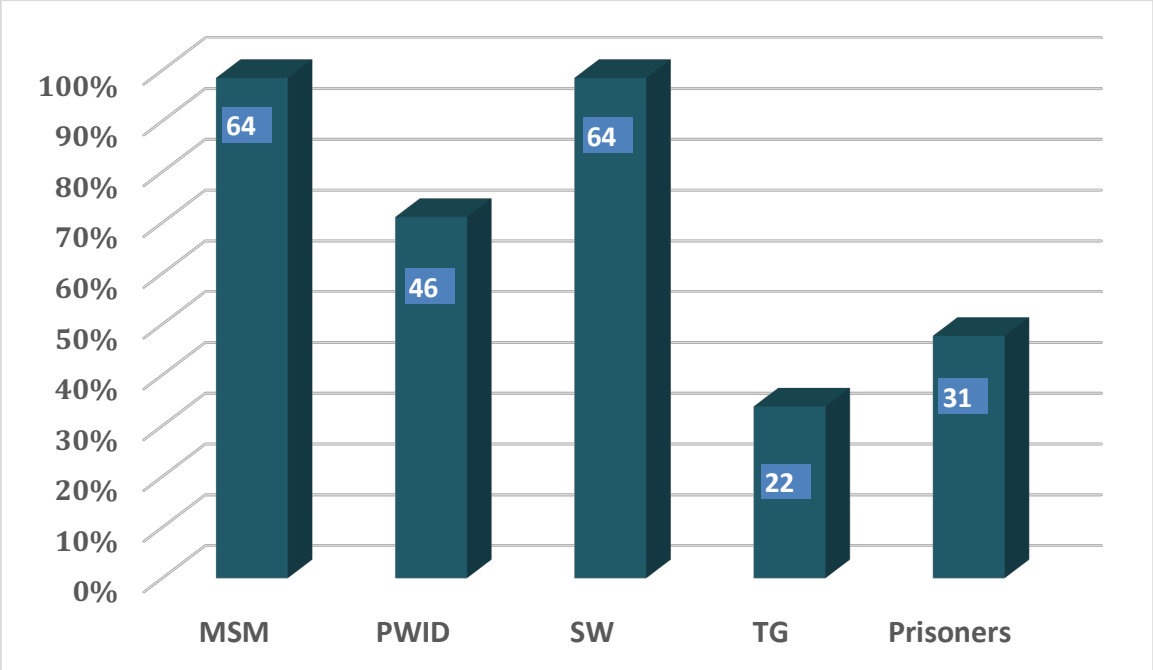


Table 4. Key Populations Identified in National Plans, by Region

	MSM	PWID	FSW	TG	Prisoners
AP	14/14 100%	12/14 85.7%	13/14 92.9%	10/14 71.4%	4/14 28.6%
EECA	12/12 100%[12]	12/12 100%	12/12 100%	2/12 16.7%[13]	11/12 91.7%
ESA	11/11 100%	6/11 54.5%	11/11 100%	3/11 27.3%	5/11 45.5%
LAC	11/11 100%	1/11 9.1%	11/11 100%	9/11 81.8%	4/11 36.4%
MENA	6/7 85.7%	6/7 85.7%	7/7 100%	0/7 0%	3/7 42.9%
WCA	10/10 100%	9/10 90%	10/10 100%	0/10 0%	5/10 50%

[12] Tajikistan has identified MSM as a key population but has not designed a separate package of services for this population.

[13] Georgia has included TG in their service package for FSW; Kyrgyz Republic has included TG in their service package for MSM.

Total	64/65 98.5%	46/65 70.8%	64/65 98.5%	22/65 33.8%	31/65 47.7%

DESIGN PROCESS

For the 33 countries with desk review only, it was impossible to determine to what extent KP networks or representatives were involved in the design of service packages. In the 32 countries with country visits, it was often stated by representatives of CCMs, PRs and Ministries of Health that KP were "engaged" with the design process, but this may mean different things in different places and the views of this group of stakeholders were sometimes repudiated by members of KP networks or community-based organizations. For example, key documents in one LAC country explain that KP representatives have been engaged in the design of their service package content and keep participating in national monitoring and evaluation mechanisms. However, key CBOs doing fieldwork with KP stated that they do not have a transparent and accountable up-stream mechanism to make the voices of KP members heard or for them to have an influence on policies.

Despite this, there were also examples of good practice in this area. In Sierra Leone, for instance, KP are included in the CCM. During key informant interviews in that country, many KP leaders stated that they felt meaningfully included in the program design, implementation and ongoing monitoring. South Africa and Kenya have taken great steps beyond outlining KP service packages in their National Strategic Plans. In South Africa, separate Strategic Plans were developed to address HIV among sex workers, and among MSM and transgender people. The Sex Worker Plan provides specific and detailed differentiated approaches, depending on the number of sex workers in each locality. Kenya developed its National Guidelines for HIV/STI Programming with Key Populations (NASCOP 2015) as well as its HIV Prevention Revolution Road Map to assist all government entities and NGOs down to county level to plan and implement programming for KP.

In a few countries, KP service packages were combined. Most commonly, this was done for MSM and TG women, but in a few countries a remarkable degree of standardization has been attempted. For example, in the Dominican Republic, the HIV Concept Note from 2015 includes a detailed package of prevention interventions for MSM, TG women, FSW, women living in *bayetes*[14] and Haitian migrants. All five packages have the following components in common:

- HIV diagnosis (offer of counselling prior to HIV testing and clinical referral)
- Pre- and post-test counselling
- HIV diagnosis (HIV testing and delivery of results)
- Condoms (minimum of 15 condoms)
- Lubricants (minimum of one lubricant for every three condoms)
- Behavior change activities

It should be noted that although PWID and prisoners are not targeted, it is stated in the Concept Note that the materials produced under behavior change activities "will be designed taking into consideration the approach strategy for these populations". In the Concept Note, there is no

[14] A *batey* (plural *bateyes*) is a settlement around a sugar mill.

explanation on how it was estimated that 15 condoms and five lubricant gel packs (one for every three condoms) is an appropriate quantity for all five KP groups.

Another example is the new Guatemala HIV Funding Request for the period 2018-2020, which includes a defined package of services for five KP: MSM, TG women, FSW, prisoners and people living with HIV (PLHIV). The prevention package to be delivered to each individual MSM, TG woman, FSW and prisoner every four months, contains:

- 24 condoms
- 24 lubricant sachets
- Verbal information about combined prevention: condom use, PEP, PrEP, HIV testing, ARV treatment, counseling on HIV sexual transmission risk reduction and information on STIs
- Use of peers to reach out to individuals and navigators to link them to the health system.
- Strengthening of health centers to adapt services to the 3 KP
- Sensitization and training of healthcare staff
- Engagement of KP members in advocacy activities

It is not clear how the number of 24 condoms every four months was decided upon and why it is the same for each KP group. According to the information gathered during the field visit, the number of sexual encounters with partners and/or clients is much higher than 24 for SW and TG women in particular.

A complete list of key populations identified in national plans and strategies, by country, is available in Annex 2. Findings related to specific key populations and the design of service packages for them are presented below.

Critical enabler interventions are not included in the KP service packages of most countries. Some of them – usually without community empowerment – are present in many National Strategic Plans and other reference documents, but they are rarely attached to the interventions or included in the package of services as defined by those documents. These elements are usually listed in a separate section of Strategic Plans under a heading such as “Enabling Environment” and refer to a set of programs that address a range of issues across all KP and for the wider population.

The tables and sections below for each key population draw on the data found in the 65 desk reviews and 32 country reports. By searching through national reference documents, some data were found on critical enablers. In the tables in Annex 3, the countries with key elements of each KP package (including critical enablers) are specified. At the end of these tables is a list of critical enabler activities in a range of countries that do not specify a particular KP but refer to all KP identified by the country.

Sex Workers

While designs of sex worker service packages generally followed the WHO guidance, there was often confusion among assessment teams about who was being targeted by these packages. In most countries the term ‘sex worker’ is either not defined or is assumed to refer only to female sex workers. A small number of countries refer to male and/or TG sex workers, but often without specifying tailored service packages for these groups. In other countries, male SW who are also MSM are assumed to be included in MSM programming (but without any differences in service packages). The same occurs in some countries for TG SW. Another important distinction is between adults and adolescents who sell

sex. While the adults are included in service packages, adolescents are not, as they are regarded in many countries as children trafficked into sex work.

Of the 65 countries reviewed, 62 (95.4%) included SW as a KP. Of these, 58 (93.5% of countries which recognize SW as KP) included condom provision as part of the package which, while high, is not 100% of all designs. Inclusion of lubricants is significantly lower, however, and they are only part of the design in 32 (51.6%) out of the 62 countries that include SW as a KP. Thirteen countries (20.9%) include female condoms, and 10 of them were in Africa.

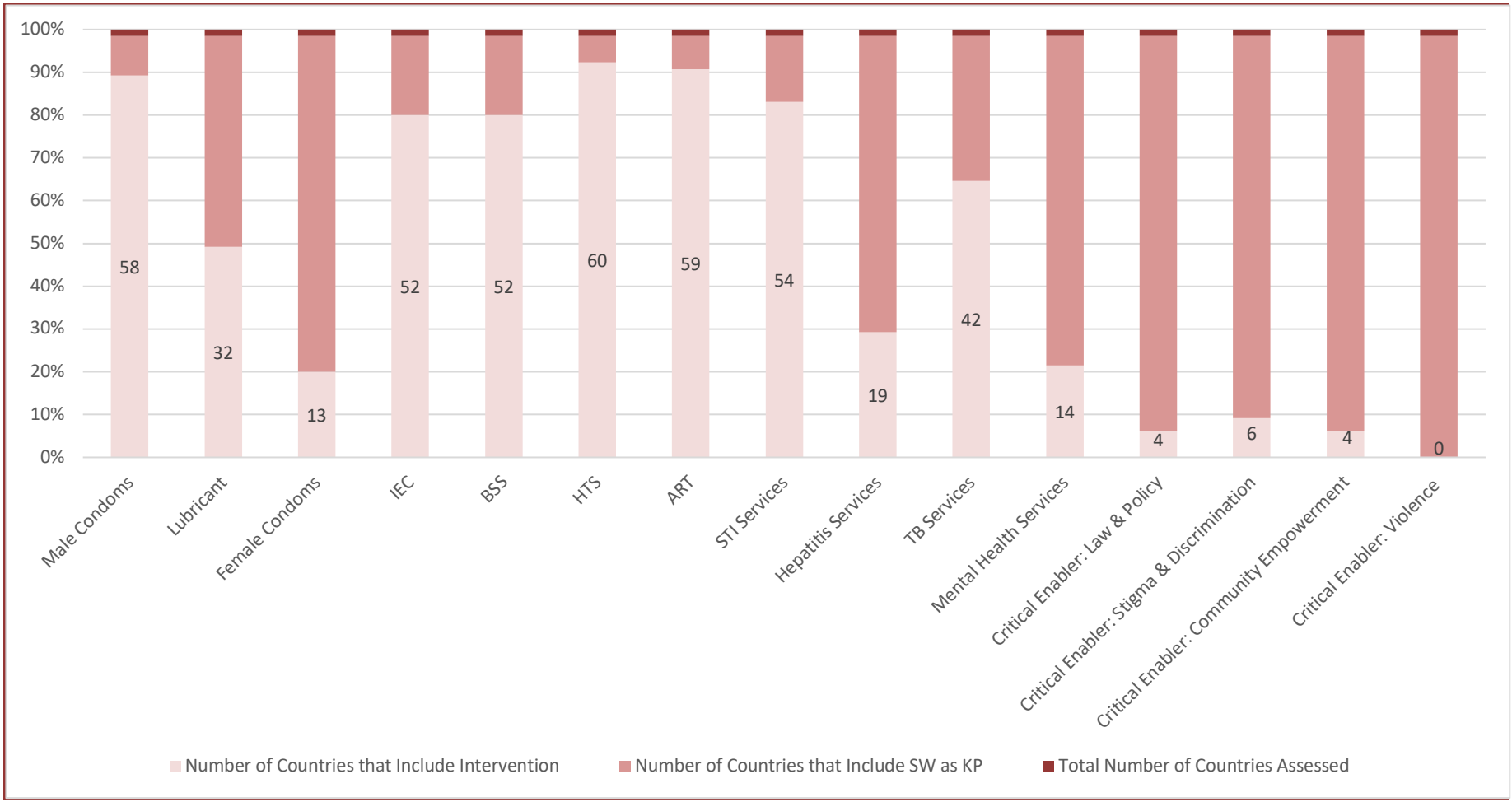
Behavioral interventions are commonly included, with 80.0% of all countries including both information, education, and communication (IEC) materials and behavior change communication (BCC). There are frequent mentions of peer-based approaches, though limited detail on what those entail. Detail on the specific design of behavioral interventions is generally sparse, and in most places there are not minimum standards for what these interventions are meant to include.

Inclusion of HTC is high, with 60 (96.7%) of the 62 countries that included SW as a KP integrating it into the package design. Only seven countries explicitly include community-based or rapid testing for reaching SW, and none refer to self-testing. These figures are similar to those found in WHO's (2018) review of KP packages in the AFRO region which found only 9 of the 45 countries assessed have community-based testing in their NSP package designs and only two include self-testing. The vast majority (59 out of the 62; 95.2%) of countries include either ART or SW-specific referral to ART as part of package design. A few countries in MENA (Tunisia, Sudan and Egypt) are the only countries to specify clinical monitoring of ART as part of SW package design.

Notably, screening and treatment for both TB and hepatitis are both included twice as frequently as for PWID. Mental health services are also included in SW packages more frequently than for any other key population, though only 14 countries (22.6%) include mental health interventions, and this is far from sufficient.

Inclusion of STI services is relatively frequent, with 54 (87.1%) out of 62 countries that include SW as a KP specifying these services. Reproductive health services, including contraception and access to safe abortion, post-abortion care and, in some countries, cervical cancer screening, are frequently included in ESA and LAC, but rarely in other regions.

Figure 4. Elements included in national SW service package designs



The full data on which countries include which elements from those recommended in the *Consolidated Guidelines* can be found in Table A3.1 in Annex 3.

Men Who Have Sex with Men

The MSM service packages identified generally target all men who have sex with men (including bisexual men) and, in many countries, include transgender women. However, these decisions about the recipients of services are often not made clear in the design phase.

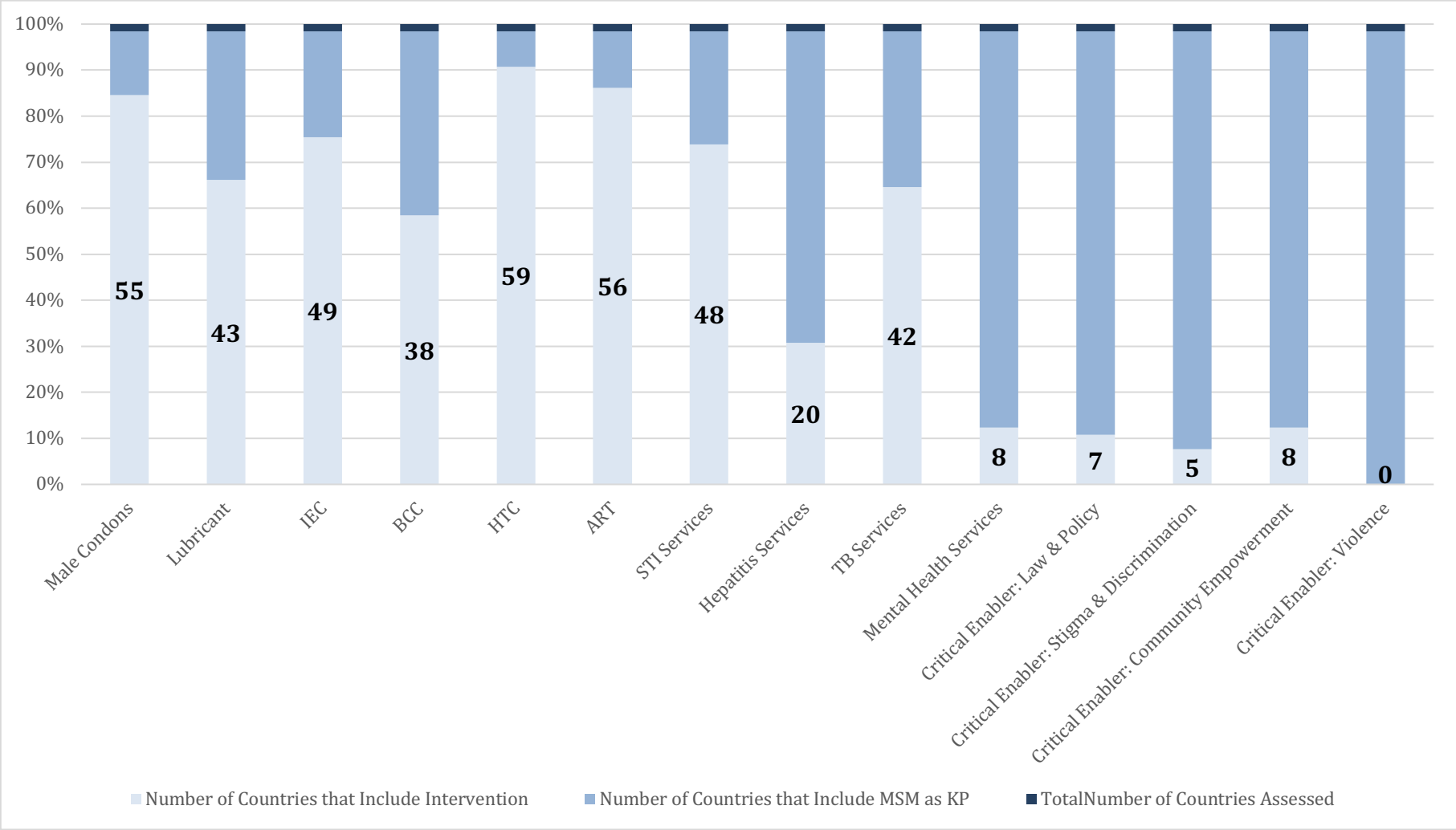
Of the 65 countries reviewed, 59 (90.8%) included MSM as a KP. The majority of these countries (55, 93.2%) include condoms in their prevention programming for MSM, and while it is far from universal, at 66.2%, more countries include lubricant in their programming for MSM than for any other key population. There is not a wide range of variability in these data across regions.

HIV testing and counseling is very regularly included for MSM, with all 52 (88.1%) of 59 countries specifying that this service is available as part of the MSM package. However, only eight countries (12.3%) specify the availability of community-based testing for MSM and none include self-testing as an option. Antiretroviral therapy for MSM living with HIV is included in 86.2% of packages. El Salvador and Tunisia are the only countries that specified access to clinical monitoring of ART for MSM.

Remarkably, hepatitis and TB co-infection management are approximately twice as likely to be included in MSM packages as they are for PWID. A total of eight countries (13.6%) include mental health services for MSM. These are well distributed across all regions, with one or two countries per region including this element in design. As with behavioral interventions, there is little in the way of detail as to what the minimum standards for mental health services may be.

Diagnosis and management of STI is included in 48 (81.4%) of the 59 countries. LAC shows a surprisingly low inclusion of STI services, with only four of 11 LAC countries (36.7%) including this element in their package. This is a notable departure from the inclusion of this element in service packages for SW (eight countries) and TG (six countries).

Figure 5. Elements included in national MSM service package designs



The full data on which countries include which elements from those recommended in the *Consolidated Guidelines* can be found in Table A3.2 in Annex 3

People Who Inject Drugs

Overall, countries in most of the regions identify PWID as a key population and have specific service packages set out for this population. The major exception to this is in LAC, where only one (Paraguay) out of 11 countries assessed identify PWID as a key population for HIV. While Paraguay does identify PWID as a key population in their National Strategic Plan, there has not been a specific package of services designed for this population, but rather a general package of services for key populations.

Only 39 of 46 countries (84.8%) that identify PWID as a KP include NSP and 35 of 46 (76.1%) include OST in their nationally defined package of services for PWID. The largest gaps are in WCA and LAC, where PWID have not in the past been (or in some cases are still not) acknowledged as a KP. Only 8 (17.4%) of the 46 countries that identify PWID as a KP include overdose management in their package design.

While 43 (93.5%) out of the 46 countries have specifically outlined the distribution of condoms for PWID populations in their national plans and strategies, a major gap exists across all six regions with regards to lubricant. Only 18 countries (39.1%) specify the inclusion of lubricant for PWID. Exceptions to this were the assessed countries in WCA, which seem to outline lubricant distribution with condom provision in their national plans for all KP. Two countries in ESA (Mauritius and Uganda) ae the only examples globally where female condoms are included in the PWID package – a rare acknowledgement of potential for specific needs among women who inject drugs.

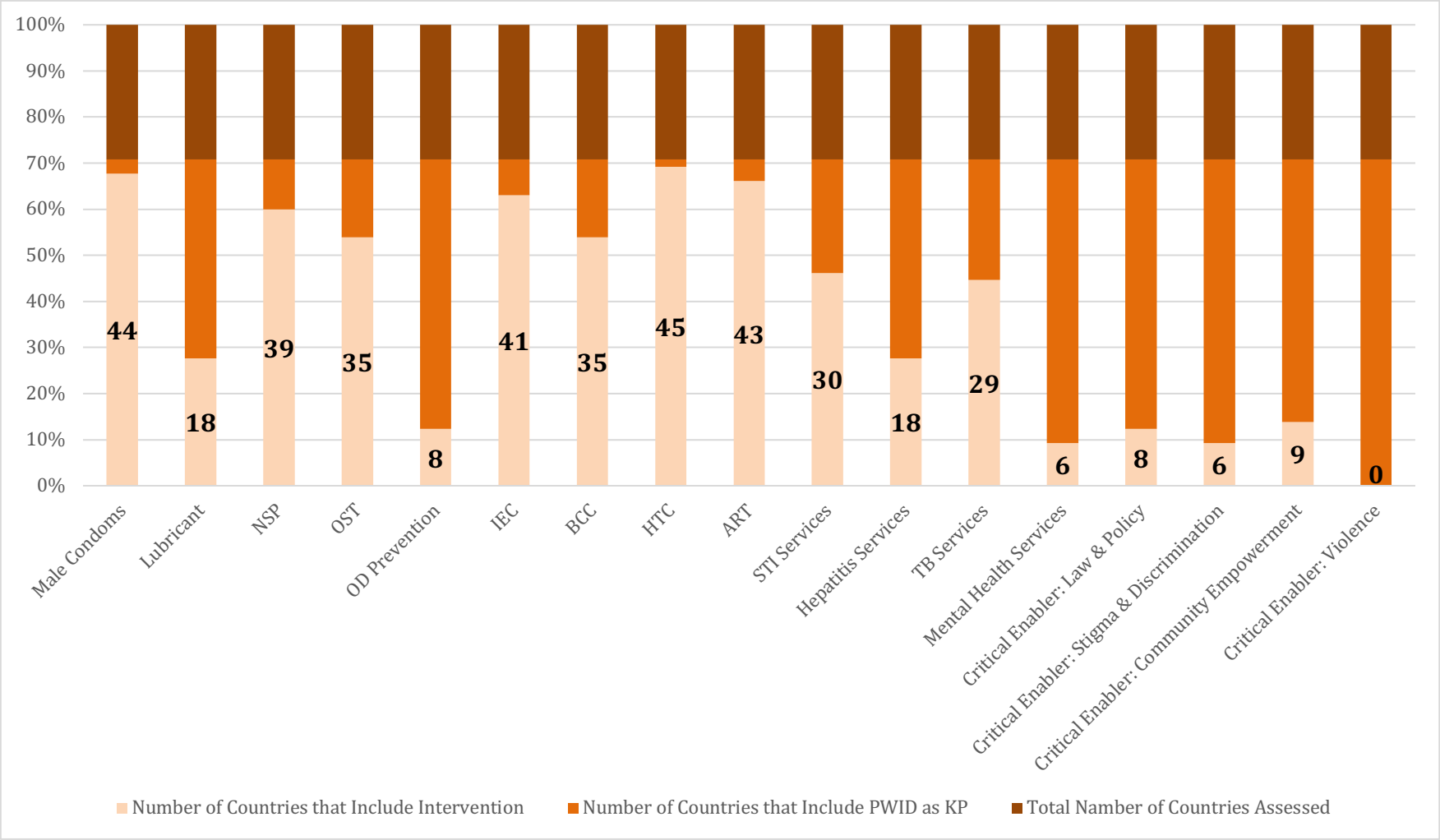
While most countries offer behavioral interventions of some sort, reference documents typically provide little detail on what this involves. This lack of specificity and standardization in most countries could call into question whether the behavioral interventions being utilized are sufficiently evidence-informed and of high enough quality to be a valuable investment of limited resources.

Of the 46 countries, 45 (97.8%) offer HTC, but only three (6.5%) specify the availability of community-based testing and none specify self-testing. ART access is specifically included in 42 (91.3%) of country packages of services. This seems to show a trend that runs across KP, where it is assumed that it is sufficient for KP to have access to ART services designed for the general population. This may be particularly problematic from PWID who would benefit from OST and tailored ART programs which allow for concomitant use of opioid substitutes (methadone, buprenorphine).

Only 29 countries (63.0%) include diagnosis and treatment of TB co-infection as part of the PWID package. Given the relationship between opioid use and vulnerability to TB, as well as the significant TB epidemics in many regions, this is particularly concerning. Hepatitis co-morbidity management is only included in 18 countries (62.1%).

While STI services are relatively widely included in PWID service packages, other reproductive health services are not. This is again perhaps reflective of the masculinization of PWID services and the lack of consideration for gender-sensitive approaches for women who inject drugs.

Figure 6. Elements included in national PWID service package designs



The full data on which countries include which elements from those recommended in the *Consolidated Guidelines* can be found in Table A3.3 in Annex 3.

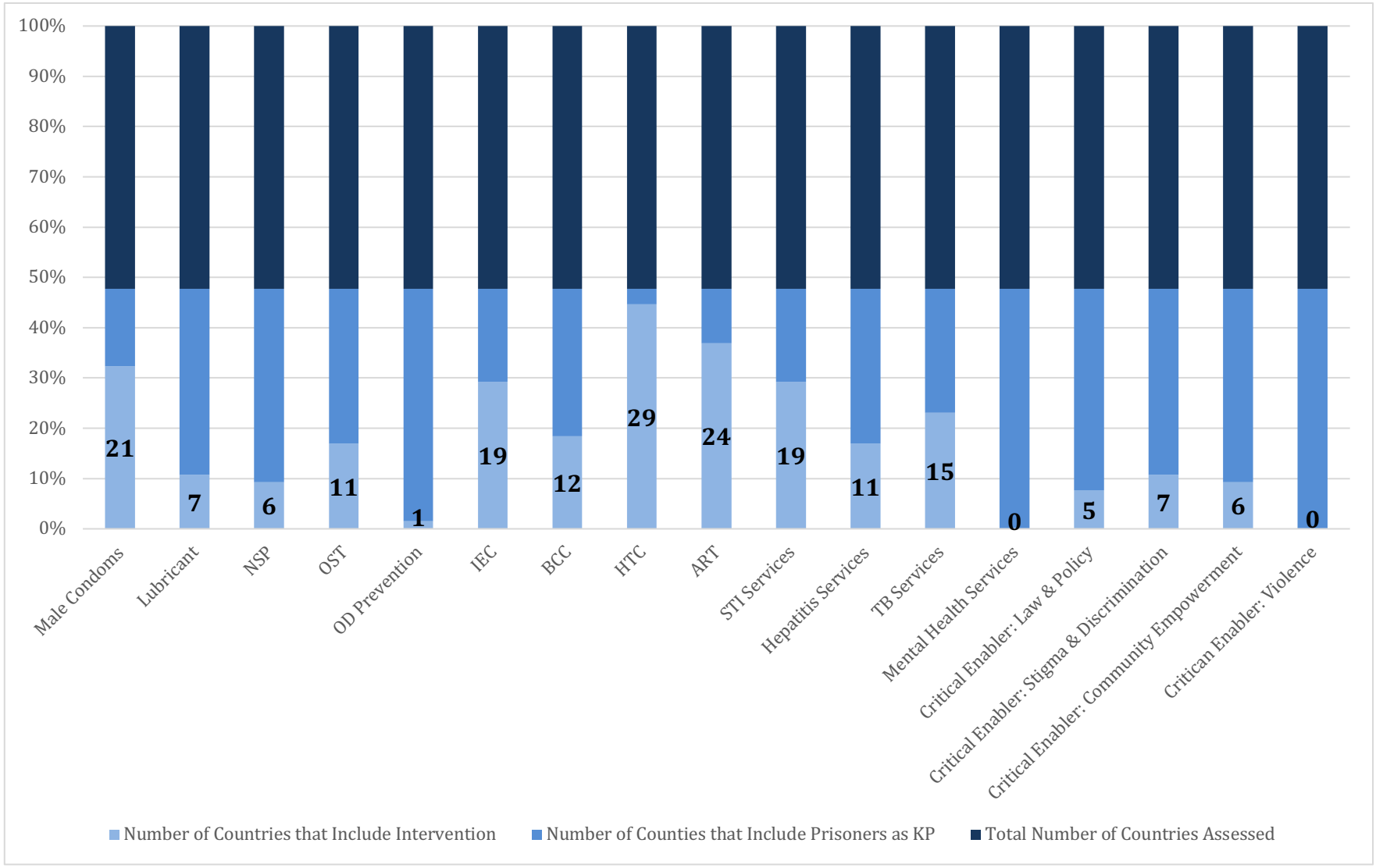
PRISONERS

Overall, it was more rare to see all elements of the recommended package set out for prisoners compared with other KP. Only 30 out of 65 countries (46.2%) identify prisoners as a key population. Only 21 (70.0%) of these 30 countries have a package designed to provide condoms in a prison setting. Only seven (10.8%) include lubricant access. Of urgent concern, only five (16.7%) include access to needles and syringes in prison and 12 (40.0%) include OST. It should be noted that even where OST is included, the planned access to OST may not be universal, with some countries providing access in only one or two prison facilities. Further, overdose prevention is dramatically under-addressed in prison, with only one country (Afghanistan) including this in its package.

Nineteen (63.3%) and 12 (40.0%) of the 30 countries that include prisoners as a KP include IEC and BCC in program design, respectively. Twenty-nine (96.7%) include access to HIV testing in prisons. It is not always apparent whether testing is voluntary and accompanied by appropriate counseling. There is a concerning lack of provision of ART for prisoners living with HIV. Only 26 (86.7%) of the 30 countries include ART in the service package for prisoners. For those, it appears that there is a mixture of on-site access to ART and referral to specialized health facilities. As with HIV testing, this is of particular concern because prisoners cannot seek ART services designed for the general population, and in settings where referrals are supposed to happen in theory, there need to be a strong mechanism to assure that they occur in practice.

While around half of the countries that identify prisoners as a KP include TB services and 18 countries (60%) include STI services, only 11 countries (36.7%) include diagnosis and treatment of hepatitis and none list mental health services as part of their package. Notably, the prisoner packages that do exist appear to be 'gender neutral' – which by default appears to tailor them to servicing incarcerated men. The exceptions appear to be Lesotho, which mentions provisions for pregnant women and nursing mothers, and the Republic of Georgia, which includes programming to prevent physical and sexual violence against and amongst prisoners.

Figure 7. Elements included in national prisoner service package designs



The full data on which countries include which elements from those recommended in the *Consolidated Guidelines* can be found in Table A3.4 in Annex 3

TRANSGENDER PEOPLE

Transgender people are primarily recognized in AP and LAC, but in other regions they are not identified as a separate key population in most of the countries assessed. Exceptions include:

- The Kyrgyz Republic and Georgia both have packages for TG – however, in the former the TG package is identical to the MSM package and in the latter the TG package is identical to the FSW package. It is unclear whether significant differentiation occurs in practice to address the needs of TG as a distinct population.
- South Africa has a service package for TG, but it is currently included in the service package for MSM, with the addition of sexual and reproductive health interventions.
- Tanzania has a service package for TG, but the service package includes TG with MSM.

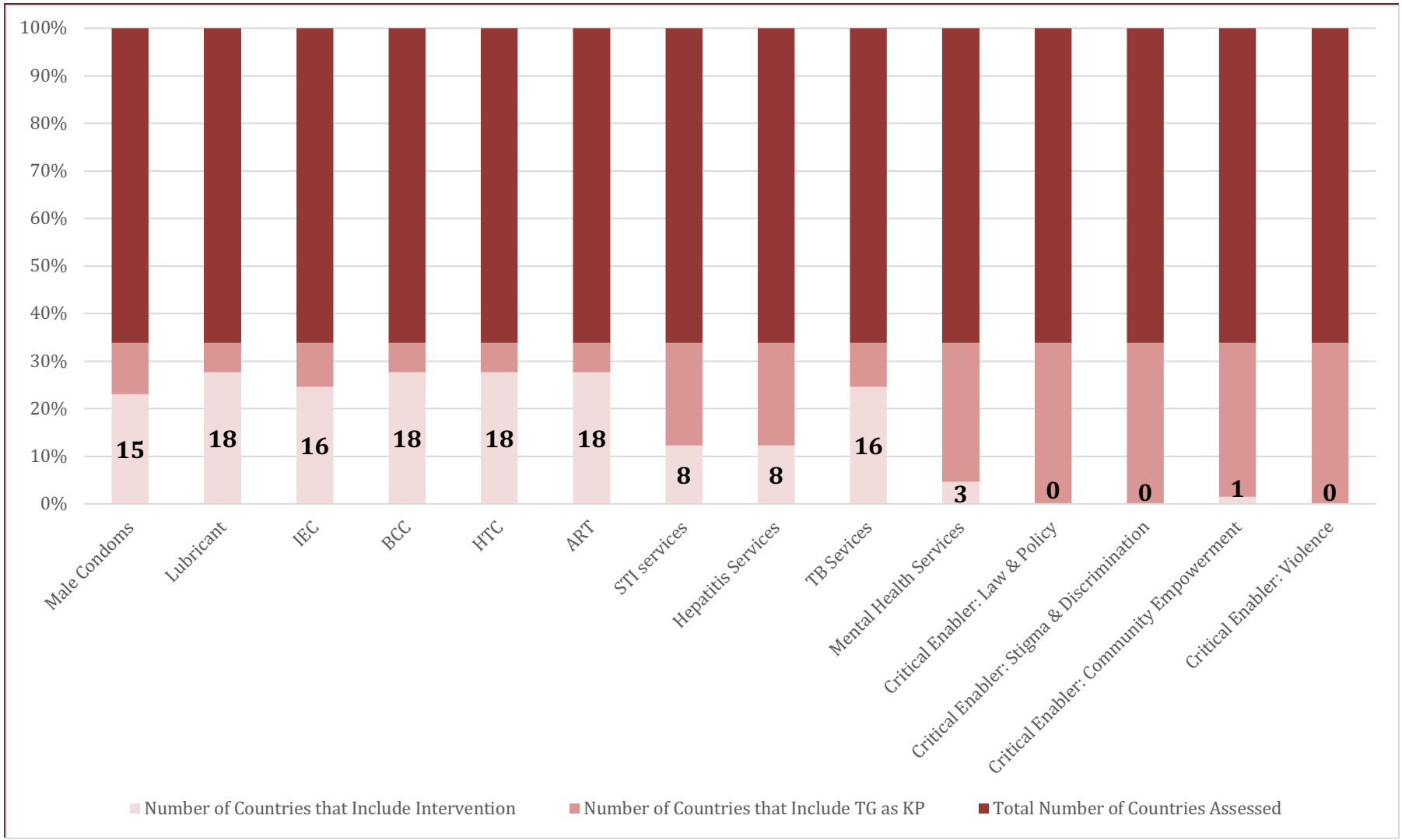
Transgender people are not identified as a separate key population in any of the MENA countries assessed.

Because of this lack of recognition and inclusion, it is not useful to speak about the percentage of countries globally that include certain elements in their packages, but instead it is more practical to examine practices in the two regions that do consistently recognize and design services for TG.

Across both regions, Asia Pacific (AP) and Latin America and the Caribbean (LAC), condoms are considered a key element of prevention programming in most countries, though inclusion of lubricant is significantly higher in AP than in LAC. Behavioral interventions are widely included in programming, though as with other populations, the approach seems to vary by country and a sufficient level of detail is not available to assess what defines a peer-to-peer approach, for example.

It is encouraging that all 18 countries that identify TG as a KP include HTC in their package of services. Three additional countries also include services for the TG population combined with their package of services for MSM. There are no specifications on how testing is provided, including whether community-based services are included in designs. All countries in AP offer TB and STI services as part of their packages and two provide access to hepatitis services. At the same time, there is no mention of mental health services. In LAC, on the other hand, there is much less consistent inclusion of TB (three countries) and STI services (six countries), while three offer services related to hepatitis and two define mental health services as part of their package.

Figure 8. Elements included in national service package designs for transgender people



The full data on which countries include which elements from those recommended in the *Consolidated Guidelines* can be found in Table A3.4 in Annex 3

ANALYSIS: ARE SERVICE PACKAGE DESIGNS IN LINE WITH GLOBAL GUIDANCE?

It is notable and encouraging that most countries have formally recognized at least MSM and SW as key populations in their national reference documents, many have also identified PWID as key populations, and countries have developed a package of services designed to meet the needs of each population recognized, with clear consideration of WHO guidance. Particularly in countries with generalized epidemics where key populations have only recently been recognized as being disproportionately affected by HIV, it is promising that they are recognized at this national, strategic level. However, there remain several major issues with design of KP service packages.

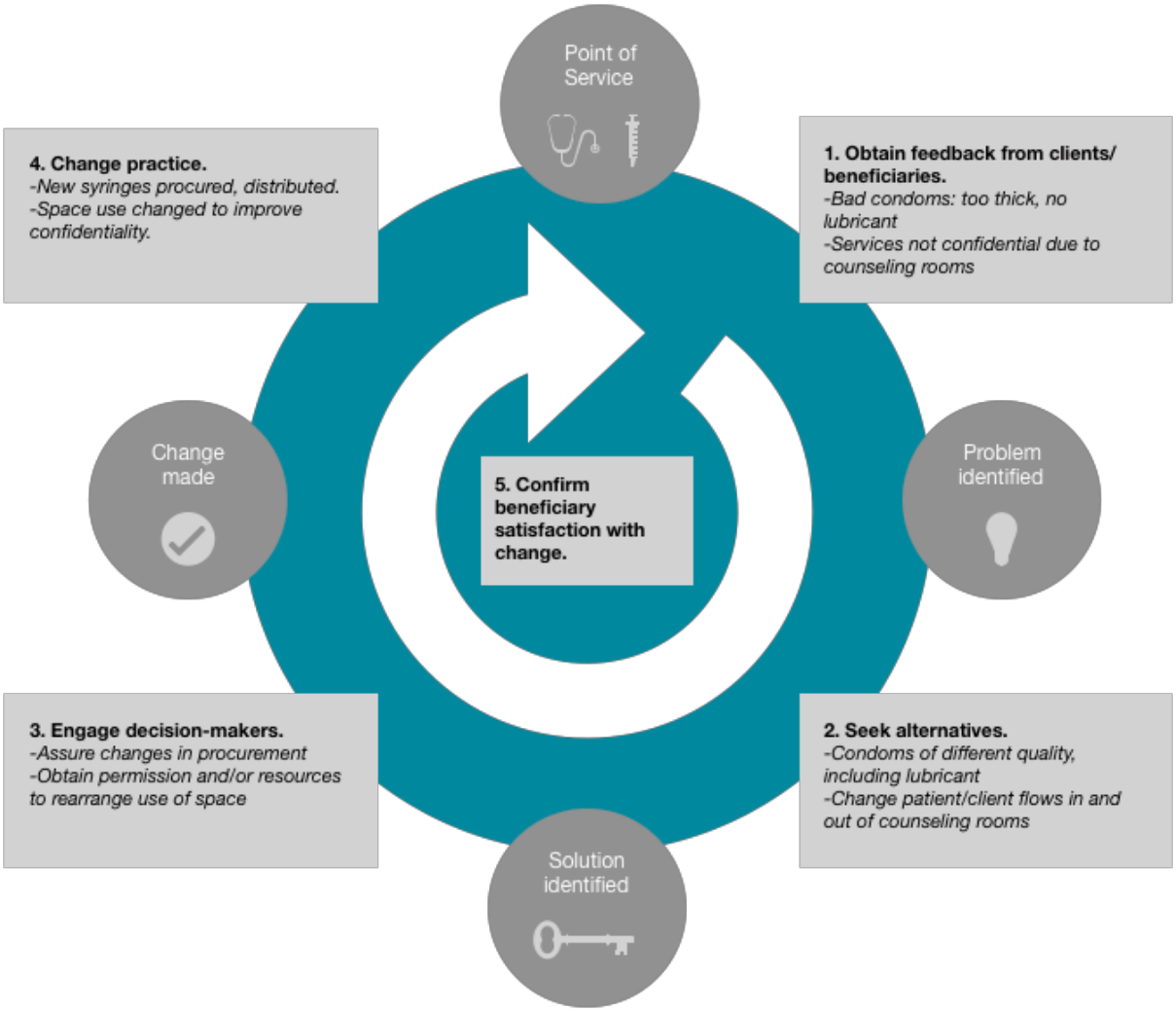
Some key populations are not recognized. It is impossible to design an appropriate package for a population that remains unrecognized or is poorly understood. This underscores the importance of all countries gathering and using improved data on TG and prisoners in particular. In LAC and some parts of Africa, there is also a need for better understanding and inclusion of PWID or people who use drugs (PWUD) in order to understand their service needs.

Whilst WHO (2018) notes that all countries "developing new strategic plans need to include the key populations", there may be other populations disproportionately affected by HIV and so deserving attention. Still, the five key populations defined by WHO and UN partners deserve particular and specific attention. These populations face structural barriers to services that compound their risk exposure – barriers such as laws that criminalize their behavior, stigma, discrimination and violence." It also notes that sub-populations of KP may need specific goods and services that should be included in service package designs: these sub-populations include male and TG SW, women who inject drugs and adolescent KP.

Key population representatives and/or networks need to be fully involved in designing KP service packages. There is good evidence of collaboration between KP representatives and/or networks and other stakeholders in the design of some KP service packages in some countries. Many of the issues mentioned in further sections of this report can be at least partially solved through the full involvement of KP in the design process. Some governments would benefit from further technical assistance and capacity development to ensure the meaningful involvement of KP representatives and networks in the process of designing service packages for KP.

While the design process is likely to occur only once every three to five years, there is valuable information to be captured during implementation, which can systematically feed into ongoing updates to design and/or periodic redesign. The use of client feedback loops, discussed further in following sections of this report, was notably lacking in most countries, and would provide a regular source for data to feed design-related decision. A basic description of the feedback loop concept, accompanied by two illustrative examples, is provided in Figure 9 below.

Figure 9. Example of client feedback loops to improve quality of commodities and services



In addition, WHO (2018) notes that "involving key population communities in service delivery will increase the reach and effectiveness of prevention, testing, treatment and care" and this should be specified – where feasible and safe for KP themselves to participate – in service package designs. In particular national strategies or SOP should provide guidelines for outreach that ensure the safety of both outreach workers and clients – an issue raised in focus groups with KP and key informant interviews with KP-led organizations in many countries. In addition, where e-outreach is to be used, guidelines should be provided on effective, ethical methods.

Lack of detail (or sometimes too much prescription) on what constitutes coverage. Most countries assessed provide little detail in national design documents on the number of prevention products (condoms, lubricant, injecting equipment) to be distributed to individuals from KP, on methods to provide prevention commodities and services, testing, treatment, care and support, and on frequency of service availability. This is understandable given that many countries use Standard Operating Procedures (SOP) documents to guide implementation of these programs and such issues are often covered in SOP. However, some countries do not have specifications in either the design or SOP documents, and this can lead to uneven distribution and quality, especially where a large group of Sub-Recipients work with Global Fund and have other sources of funding, and where countries have

NGOs supported by both Global Fund and US Government or other donors. (This issue is discussed in greater detail in the Implementation section).

There is a recurrent issue in most package designs regarding a lack of, or inadequate definition of what constitutes coverage with most interventions. Only a few countries set out within their design documents the defined package of services that KP members should receive and the frequency of service delivery which should constitute coverage. In some cases, there is also lack of a clear definition of those regarded as members of the key population and therefore targeted by KP programming.

The opposite also occurs, as shown at the beginning of this chapter, with some countries specifying very narrowly the amounts of prevention products to be distributed each month per person. It is useful to have guidance in either design or SOP documents both about the types of products to be distributed and the amount, but sufficient flexibility is required in both design and implementation to ensure that KP receive the amount required to ensure consistent safety. The practice of specifying in design documents exact numbers of condoms or needles and syringes to be provided to each individual each month needs to be reconsidered. Planning and budgeting can be carried out using estimates of need, but actual provision of services and products should not be strictly limited or standardized in a manner which does not allow for varying need between individuals seeking services.

Lack of lubricant to accompany condom programming. It appears that many countries consider lubricant to be optional within condom distribution programs. This indicates a need for greater consideration of the WHO standards around condom programming. It should be noted that some countries are purchasing condoms, which include lubricant. While there is no reason to discourage this practice (if it meets key population needs), it is still important to specify the inclusion of lubricant, regardless of mode of delivery, in national reference documents which may be used to guide budgeting and procurement efforts.

Inadequate inclusion of needle-syringe programs (NSP) and opioid substitution treatment (OST) for PWID and prisoners. While 70.8% of countries assessed have recognized PWID as a key population, still fewer than half of all 65 countries include NSP in their PWID package, and fewer than 10% do so for prisoners. Likewise, OST is specified in only 36.9% of countries for PWID, and 15.4% for prisoners. These are not new interventions, and both were recommended as part of evidence-informed programming in WHO guidance that preceded the 2014 *Consolidated Guidelines*. Both programs should be included in all PWID service packages.

Pre-exposure Prophylaxis and overdose prevention have not been added to packages in the majority of countries. The majority of KP service packages do not include PrEP. This is also borne out by the WHO (2018) analysis of AFRO region which found few of the 45 countries reviewed had PrEP in their national HIV strategies (with the highest being seven countries including PrEP for MSM). Despite being safe, cost effective and regularly identified as a major incentive for PWID to engage in care, only 12.3% of countries make overdose prevention available for PWID, and only a single country out of 65 does so for prisoners. While it is understandable that it may take time to add these interventions (including accessing the necessary funds required for implementation), countries need to ensure these programs are addressed in upcoming design and grant proposal documents.

The availability and accessibility of HIV testing and ART is particularly important to reach 90-90-90 targets – but not all countries specify these interventions as part of key population packages. In

many countries, it appears that these elements are left out of KP packages in the belief that these services are generally available and therefore can be accessed by KP. The Global Fund's recent work on human rights barriers to HIV services has found in all countries surveyed that significant barriers exist that prevent KP from accessing testing and ART. For this reason, there should be specific approaches outlined in the design documents (allied to the human rights interventions discussed below) to ensuring that HTC and ART services are accessible for each KP.

In addition, the inclusion of differentiated testing models designed specifically to reach harder-to-reach populations (e.g. community-based testing, in various venues and through different outreach methods; self-testing or assisted self-testing; lay-provider testing) is currently suboptimal. While in many countries, community-based testing is available to some degree (though often not specified in the package design), in order to reach testing targets, countries need to expand access to these and other forms of testing. The WHO (2018) recommends that national strategies specify how programs will address access and adherence to treatment for KP, including treatment interruption due to incarceration or migration. Further development of differentiated approaches to support successful ART are needed.

Other complementary services, addressing co-morbidities and related health needs, need more careful consideration. In particular, given the TB burden in many KP (especially those who are living with HIV) and emerging drug-resistance within TB epidemics, it is critical that all countries include TB testing and treatment in all service packages for all KP. While services for TB, HCV, STI and other reproductive health issues may be available in the country in general, and some key populations may be able to access these services in the same manner as the general population, the same issues apply as for HTC and ART. There need to be specific approaches (options for which are provided in the *Consolidated Guidelines*) outlined in national reference documents to ensure that these services are accessible for each KP. One of the most surprising findings of these assessments was the desire for increased mental health services expressed by many KP. While this is a distinctly more difficult ask than some of the core health services noted above, there may be cost-effective options to be explored in settings where these services are highly desired and would provide compelling incentive for KP to engaging and remain in services (see Box 1 below.)

BOX 1: RECONSIDERING MENTAL HEALTH SERVICES FOR KEY POPULATIONS

When considering where mental health services fit into packages of HIV services for key populations, it is important to understand that not every country included in this assessment has the same capacity for mental health services, specifically to key populations. Where adequate mental health services exist for the general population, key population package designs and HIV programs should assure that there are linkages to these services for key populations in particular, due to their increased risk of HIV. In countries where adequate mental health services for the general population do not exist, HIV programs should target key populations with cost-effective, evidence-informed interventions from the emerging global literature on this topic.

In particular, depression, anxiety, and Post-traumatic Stress Disorder (PTSD) are among those mental health issues that are prevalent among KP and PLHIV, and effective treatments improve HIV related outcomes (Katz & Tsai, 2015; Onu et al, 2016). For example, group psychotherapy with PLHIV in Northern Uganda has been studied as an intervention for improving HIV related outcomes, such as treatment adherence, which ultimately contributes to the reduction in stigma experienced by PLHIV (Katz & Tsai, 2015). This is a powerful endorsement for engaging well-trained mental health professionals, where they are available.

However, many countries assessed do not have well-established mental health services. These settings may do better to turn to examples of success with mental health services being provided by trained lay people (Katz & Tsai, 2015). Mental health services could also be provided by task shifting or task sharing; training doctors, nurses and other medical professional to provide basic, evidence- based mental health services to the patients that are already interacting with could have significant impacts on the mental health of PLHIV and key populations.

One compelling example of the use of lay counselors comes from Onu et al (2016), currently investigating the use of interpersonal psychotherapy (IPT) for depression and PTSD among women living with HIV in Kenya. Interpersonal psychotherapy as an intervention consists of 10-12 weekly sessions, aiming to address interpersonal issues in depression, and helping patients to build social skills and gather social support. The most interesting aspect of this study is the fact that there are no educational or experience requirements for the therapists who were trained to deliver ITP. Therapists are engaged in a 10-day training and underwent a trial period in which they were assessed to determine if they could continue to participate as therapists in the trial (Onu et al, 2016). Investigators are using measures to evaluation effectiveness of the IPT intervention (such as the Beck Depression Scale and the Posttraumatic Stress Disorder Checklist-Civilian), as well as the Visual Analog Scale to assess HIV treatment adherence. Such interventions may hold promise for expanding on the most sought-after services by some KP interviewed, with a strong return on the investment of limited resources.

Activities to reduce the most prominent human rights barriers to KP access to HIV service package elements need to be included in designs. It was noted earlier in this report that designs of packages in most countries do not include structural interventions. This should change for future iterations of KP service packages. Specifically, KP representatives should be supported to work with other stakeholders to define the greatest barriers to access for each KP and determine which of the UNAIDS/Global Fund list of activities to reduce human rights barriers[15] and the WHO *Consolidated*

[15] Described in the Technical Brief *HIV, Human Rights and Gender Equality,* Global Fund to Fight AIDS, TB and Malaria (April 2017)

Guidelines Critical Enabler interventions will most quickly and effectively reduce these barriers. These activities should then be included as core elements of the KP service packages.

It is particularly noteworthy that most countries include few or no interventions for community empowerment of KP or to address violence towards KP. Yet, as shown in the Implementation section below, the weakness of KP community systems is contributing to sub-optimal coverage of KP services, and violence continues to be raised as a major issue by at least some KP in most countries in focus group discussions.

Community empowerment is rarely mentioned in national reference documents. Despite the centrality of this activity to many UN publications on working with KP, the only references to KP community empowerment found in this assessment were to the establishment, funding or role of KP networks in a few countries. In some countries, there is an assumption that community system strengthening (CSS) will lead to community empowerment but this process is not explained, and the CSS activities are not placed within KP service packages. A major issue for most countries appears to be a lack of understanding of the value of KP community empowerment in meeting national targets for reducing or eliminating HIV infection. Advocacy materials may be required to assist national stakeholders see the value of these activities. This is discussed further in the Conclusions section.

RECOMMENDATIONS: DESIGN OF SERVICE PACKAGES FOR KEY POPULATIONS

To the attention of	Recommendation
Global Fund, WHO, UNAIDS and partners	D1. Assist national stakeholders to use guidance on KP programming and service packages to ensure that they have documented KP service packages in their national HIV plans that are tailored to KP context and need. Include attention to the strengthening of involvement of KP representatives and/or networks. This process should take into account the differentiation processes suggested in the Overall Recommendations. D2. Develop/strengthen guidelines for differentiated approaches to KP service package design and implementation, including: • Prisoners considered separately from MSM, SW, TG and PWID • Differentiation based on geography/ mapping of KP • Level of experience of KP-led organizations • Potential roles of KP in planning services and in critical enabler activities. D3. Identify and advocate for resources for global and regional KP networks to work on the above guidance.
All countries developing new national strategies and plans for HIV	D4. Consider inclusion of all five KP defined by WHO. At a minimum, every national strategy should include service packages for MSM, SW and prisoners. If there is a belief that TG and/or PWID do not exist in the country, an investigation should be carried out to verify this. D5. Fully involve key population representatives and/or networks in designing KP service packages. D6. Define and regularly (every 3-5 years) update packages of services for all key populations as part of the development of the national HIV strategy, and of a National HIV Prevention Plan and Results Framework[16].

[16] UNAIDS is developing guidance documents on how to develop prevention plans and results frameworks for KP among the five pillars of HIV prevention. See https://hivpreventioncoalition.unaids.org/

D7. Provide detailed information in either the national strategy or Standard Operating Procedures (SOP) (or equivalent document) for each KP service package, including:

- The population for whom the package is designed: including definition of the population, and definition of any significant sub-populations for whom separate designs are developed;
- Elements of the designed package, potentially differentiated by site, gender and other criteria (see Overall Recommendations), including critical enabler activities;
- Estimated numbers of prevention products (condoms, lubricant, injecting equipment) to be distributed to individuals from KP;
- A range of methods to provide appropriately differentiated prevention commodities and services, testing, treatment, care and support with specific attention to outreach (including e-outreach), community-based service delivery especially of HTC and ART;
- Methods to ensure involvement of KP in achieving targets of critical enabler activities;
- Expected frequency of services: these should be targets against which progress can be measured;
- How coverage with a defined package of services will be measured;
- Feedback loops to monitor and control quality of commodities and services.

D8. Include lubricant with all male condom distribution.

D9. Ensure at least community needle-syringe programs and overdose management are included in every country where PWID are identified; ensure OST is provided in every country with a significantly large PWID population.[17] Include, where possible, needle-syringe, overdose management and OST programs in prisons in countries where PWID are identified in the community.

D10. Include PrEP for all KP at substantial risk of HIV infection as part of combination HIV prevention.

D11. Include TB testing and treatment in all service packages for all KP. While TB testing is often available to KP through the health system, its availability should be clearly specified in package descriptions.

D12. Include other complementary services, addressing co-morbidities and related health needs as determined by meetings between national stakeholders and KP representatives and/or networks. Depending on diversity within each KP,

[17] Set-up costs of OST are very high, compared to needle-syringe programs. These include ensuring availability of OST medications, interactions between the government and International Narcotics Control Board, training of staff, secure storage and transport of OST medications, need for doctors (usually) to prescribe OST medication.

a flexible approach may be utilized to provide different complementary services to different subpopulations or in different geographic regions.

PART III: IMPLEMENTATION AND SERVICE USAGE

HEALTH SECTOR INTERVENTIONS

In most of the 65 countries assessed in this exercise, there are disconnects between the packages of services as designed in national reference documents, and what appears on the ground in terms of accessible services. In some countries this is because elements of the packages outlined in the *Consolidated Guidelines* are not being provided at all (most significantly reproductive health services for female sex workers; harm reduction, alcohol and other drug treatment services for PWID; gender-affirming medical care for transgender people; PEP for sexual assault; and, mental health services for all KP).

In all countries there are significant shortcomings in coverage for particular key populations. There are also significant gaps between the stated packages and available services for some important sub-populations, specifically younger KP (particularly those under 18 years of age), who now make up an increasing proportion of people at risk of and living with HIV in many countries.

One of the criticisms of the *WHO Consolidated Guidelines* (and of the implementation tools for each KP that have flowed from them) often heard throughout this assessment is while that they provide a list of the recommended, evidence-based service elements to be implemented, information on the evidence-base for the nature and quality of each service element and a set of strategies to ensure that the service elements best meet the needs of people from KP, there is less guidance available for countries about service planning and 'architecture' – who should deliver the services, what should be integrated and what should stand alone, what role community-based organizations (CBOs) and non-governmental organizations (NGOs) should play, what the private sector might provide. The service delivery information in the *Consolidated Guidelines* recommends integration, decentralization and task shifting as key service delivery strategies, but assistance is also required to national or lower-jurisdictional governments on deciding where to locate service elements within their complex and resource-constrained health systems. This has been addressed to some extent in the MSM implementation guidance in a section on 'hybrid models' (UNFPA 2015) and through the newly produced Decision Frameworks for Differentiated ART Delivery for KP and for HIV testing (IAS 2018 and 2018a).

The Practical Guidelines that followed the *Consolidated Guidelines* (the SWIT, MSMIT, TRANSIT and IDUIT, referred to above) place justifiable importance on community empowerment and outline a set of strategies and quality standards for community-led outreach – but again contain only limited information on where within health systems to locate service elements.

In all countries assessed, KP (and therefore the burden of HIV among KP) is not evenly distributed across the country, so decisions have to be made about geographical distribution. In most countries, services are concentrated (along with KP) in the urban centers of the jurisdictions with the highest prevalence. This has led to some under-servicing (and sometimes no dedicated servicing) of KP in rural areas or in lower-prevalence provinces. Funding of KP NGOs to carry out information, education and demand-creation for testing, treatment and care is then generally limited to the higher-burden areas, and little KP-specific service demand creation occurs in medium or lower burden areas. None of the national strategies examined provided guidance on how to successfully integrate attention to KP in areas where NGO or CBO outreach was not being funded. Some countries (e.g. South Africa and Kenya)

have KP-specific plans that go down to ward and county level – a practice which may be considered for adoption in other countries.

There are some specific examples of countries trying to provide service planning information in their national reference documents to strengthen the link between what is outlined in the service packages as designed, and what appears on the ground:

- The First Progress Report on the Implementation of the HIV Prevention 2020 Roadmap (UNAIDS, 2018) cites the example of the three tiers of service delivery in the South African National Sex Worker HIV Plan (2016): 1) Peer outreach as the backbone of the response; 2) dedicated clinics in areas of high-density sex worker numbers (more than 3,000 SW per district) and; 3) mobile services in low density (fewer than 3,000 sex workers per district) delivered at hotspots with support from outreach teams.

- The Papua New Guinea National STI and HIV Strategy outlines 'essential' and 'enhanced' KP service packages, states which provinces will receive which package (based on HIV- burden) and outlines how demand-creation and community follow-up will be integrated into broad community health in lower-burden provinces.

- Bangladesh is in the process of integrating HIV KP service elements into their national Essential Health Service Package, stating clearly which elements of HIV KP service packages will be available at which levels of the health system.

Many countries assessed in this exercise have health systems that are decentralized, with health service delivery often planned (and funded) at a lower level of government (state, province and sometimes district) than national level. This provides a significant challenge in turning national guidelines into service delivery practice that can be operationalized at these lower levels, and this important area of work appears to have received little attention in global or regional guidance documents to date.

In terms of roles of different players across the prevention to care continuum, CBOs and NGOs generally provide prevention services to KP where criminalization, punitive policies and the behavior of police and health care workers have been significant barriers for KP to mainstream health services. However, these implementers generally then refer people elsewhere for HIV testing. The NGO/CBO package usually includes outreach (in person and more recently electronic outreach, e.g. via social media) and community drop-in services to KP, delivering condoms and lubricant, clean needles and syringes, information, counseling, first aid, advocacy and legal welfare support. In most cases, this role of CBOs and NGOs in HIV prevention is funded by external donors. There are few examples in the assessed countries of NGOs or CBOs being funded from within national or state budgets. The dominance of external donor funding in most countries for this effort has shaped practice, with most GF PR and SR and implementers under the United States Agency for International Development (USAID) or other donor funds reporting a sharpening of focus on HIV testing and a reduced focus on the other elements of prevention packages that had previously been delivered. Most SR report having to narrow their services to concentrate their efforts on meeting ambitious HIV testing and yield targets set by donors. In some cases, their funding is determined by the targets they were able to reach.

This sharpening of outreach goals and outcomes was an important shift to make, as KP knowledge of HIV status (and therefore access to life-extending ART) was unacceptably low in all regions and required urgent attention. It is important though, that this sharpening of outreach focus among KP NGOs and CBOs does not come at the cost of other important outcomes that these organizations have delivered in the past – support of their constituents living with HIV, linkage to treatment, care and support, welfare, advocacy, access to legal services, stigma reduction, community empowerment, addressing violence, etc.

Although condom and lubricant distribution along with IEC materials is taking place in almost all service packages assessed, there are significant variations in the quality and consistency of this part of prevention programming. Condom stock-outs are widespread, often occurring when administrative arrangements about distribution changed. There are complaints (particularly from SW, TG and MSM) about the quality of government procured condoms and the difficulties in convincing clients to use poor quality condoms. Lubricant availability, even where included in the designed package, is inconsistent. In some countries, condoms are rationed to KP without attention to the number of sexual partners they were likely to have. There are also changes in law and policy that affected distribution of condoms and needles and syringes including crackdowns on drug use in the Philippines; and cancelling of NSP and anticipated legal changes in Indonesia defining condom distribution as illegal under 'promoting immorality' provisions.

Advances in HIV testing technologies and national protocols have also meant that NGOs and CBOs are moving from referring KP to testing sites, to conducting community-based testing or screening (the Philippines, South Africa, Ukraine, Haiti, and Morocco) or accompanying government staff providing community testing (Indonesia, Peru, and Dominican Republic) and providing pre- and post-test counseling in government testing clinics. There are also models in place to fund NGOs and CBOs to provide outreach staff located within government or private clinics to provide counseling and adherence support (the Philippines, Papua New Guinea, Thailand, South Africa, and Guyana). In some countries, such as Indonesia, a separate network of PLHIV organizations provides support, treatment literacy, adherence and welfare support for PLHIV.

In several countries, strong, experienced and capable KP NGOs run their own clinics (India[18], the Philippines, Indonesia, Kenya, South Africa) that can provide the entire prevention to care continuum including STI and TB prevention, treatment and care. Some also provide on-site legal aid and advocacy services (the Philippines).

Most ART initiation and access occurs within the government health system, although this depends on the way that general health services are delivered in the country. In countries with well-established faith-based or NGO health delivery systems, ART initiation, on-going access and HIV clinical monitoring are also available through these systems. Many countries are moving forward with differentiated care strategies for PLHIV – from aiming to provide quick access through a range of settings, to longer prescriptions of ART without clinical monitoring for people who have achieved stable viral suppression

[18] While India was not one of the 65 countries of focus, as the request of the Global Fund MECA team, a brief literature review was conducted of the vast and rich literature base available for the country, and lessons from India were integrated into this report where relevant.

(South Africa, Indonesia, and the Philippines). New guidance on differentiated models for ART delivery among KP is now available (International AIDS Society, 2018, 2018a).

Integration with other services (or close links with other service areas) was evident in some countries. TB/HIV service integration or collaboration was strong in some countries (Ukraine, the Philippines, and Indonesia), but weak in many others.

CRITICAL ENABLERS

Despite the lack of explicit inclusion of structural interventions to address critical enablers in package designs, in most countries there are at least some relevant activities being implemented. Overall, some positive changes were reported by KP in most of the assessed countries. For example, focus groups of MSM and SW in Madagascar reported an overall improvement, with a more favorable environment compared to five years ago. There were similar results in Kenya, Kosovo, Togo, and Ukraine. However, most KP in most countries continue to experience stigma and discrimination, violence (including gender-based violence) and other human rights barriers to service access.

ACTIVITIES TO REDUCE HUMAN RIGHTS-RELATED SERVICE ACCESS BARRIERS

Few initiatives to reduce human rights-related barriers to services have been taken to scale in the countries assessed. There were few examples of a system-wide approach to decreasing stigma and discrimination among healthcare workers (or stigma, discrimination, harassment, exploitation and violence from police and other uniformed services personnel) that included development of policies and standards of treatment, pre- and in-service training, monitoring of practices and reporting and redress mechanisms for KP. This area requires more attention and guidance.

Some countries also focus on achieving reduced stigma and discrimination in all settings. In Belarus, Georgia and the Kyrgyz Republic, the current national strategies include campaigns to reduce stigma towards key populations, including the training of health care workers and informational activities for the general population. Moldova's anti-discrimination legislation is reported to provide positive protection for PLHIV, and the Ukraine has experienced steady decreases in stigmatization of key populations over time through sustained effort. Improvements have been made in Morocco as well, as reported by focus group participants. Notably, Morocco's National Strategic Plan 2017-2021 specifically includes an outcome related to reduction of stigma for key populations in the country.

The Joint United Nations Programme on HIV/AIDS (UNAIDS) in Malawi has identified the creation of an enabling legal environment and reduction of stigma and discrimination in society as a key issue for the Fast-Track approach. Transformative dialogue sessions are being led by UNAIDS, bringing together police, KP and religious leaders, among others (UNAIDS, 2016). These are being modelled after successful experiences in South Africa, where they have a think tank on HIV, rights and justice.

The MSM network, Solidarité des MSM in Madagascar is financially supported to conduct an advocacy program for the rights of the LGBT community. Médecins du Monde is currently implementing a community treatment observatory in five regions of the country that includes building capacity of key population-led NGOs to monitor and collect data for advocacy. Similar community treatment observatories are also either established or being set up in Sierra Leone, Togo, Cote d'Ivoire, Benin and Cameroon.

In Benin, a 2018 baseline assessment of human rights barriers to HIV services revealed many barriers experienced by KP, which affect their access to adequate HIV prevention, treatment, and care services. To address these barriers, a watchdog committee has been supported to document cases of gender-based violence (GBV), stigma, and discrimination against MSM and SW (328 cases recorded in 2017) and to provide psychological and legal support to those who have been victims of human rights violations. The capacity of rights-based organizations has been strengthened, journalists and lawyers have been trained to create KP-friendly networks among those professions, healthcare personnel have been sensitized to the rights of KP and radio campaigns have been organized to promote the rights of KP.

The previous and current HIV strategies in Haiti include strengthening the enabling environment as objectives, through anti-stigma and discrimination efforts, improving the legal environment and support for victims of rape, gender-based violence and stigma and discrimination, and improved gender and human rights interventions to ensure that people can access HIV services. The 2017 LINKAGES report found that trainings for police and security services on KP occur frequently. Interviews with key informants and focus group discussions from the assessment confirmed these findings, adding that health care worker training for KP-specific issues should be prioritized.

In Togo, the 2013 *Analysis of Policies for KP at Risk of HIV Infection in Togo* describes the inhibiting factors to delivering services to KP, including: a lack of formal mechanisms for KP participation in the national response; stakeholders not accepting KP inputs; KP issues missing from policy documents; repressive laws targeting KP; gender-based violence; stock outs of health products; and, the potential cost of treatment of some opportunistic infections. In response, the Togo National HIV Strategic Plan 2016-2020 details a number of actions to create a more favorable environment for KP to access HIV services. In addition, A National Policy for Prevention and Comprehensive Treatment, Care and Support of STIs and HIV in Key Populations in Togo (2013) was produced, and key population issues in regard to HIV are more openly and formally discussed in policy decisions. Training of media personnel, the police force and the legal sector on the rights of KP have brought about positive changes in the environment for key populations.

Both the Guatemala National Strategic Plan 2017-2021 and the HIV Concept Note 2018 dedicate detailed analysis to unravel these problems and adopt approaches or activity modules to address them. The Concept Note includes the following, among others:

- Political advocacy for legislation changes
- Legal recognition of gender identity
- Legal recognition of sex work
- Training on advocacy for KP individuals and PLHIV
- Support to Civil Society Organizations to update or elaborate their advocacy plan
- Implementation of KP-specific (MSM, TG Women, FSW) advocacy plans
- Legal support to KP individuals whose rights have been violated
- Training sessions on HIV-related legal issues for law enforcement officials (police and judges)
- Sensitization sessions on HIV-related stigma and discrimination for healthcare providers
- Elaboration and publication of annual national reports on HIV and human rights
- Reduction of gender inequities and gender-related violence.

Key informants and focus group participants in some of the assessed countries reported being involved in recent Global Fund-supported national assessments of human rights-related barriers to service access for KP (Benin, Honduras, Indonesia, Kenya, Kyrgyz Republic, Nepal, the Philippines, South Africa). Five-year costed plans are under development to address human rights-related barriers in these countries.[19]

Stigma and Discrimination

Stigma and discrimination were raised as important issues for most key populations in almost all countries assessed. The effect of these experiences on access to and uptake of health services is heightened for any KP also living with HIV. Through focus group discussions with KP, most areas of society were named as holding stigmatizing attitudes. One of the most crucial areas where KP experience stigma and discrimination is in health service access. Although there have been significant investments in health worker training across most regions, high levels of staff turnover, pressure on health systems through under-funding and under-staffing, and entrenched community attitudes all contribute to on-going stigma and discrimination in some health services. One exception may be Angola, where stigma and discrimination for MSM and FSW is high in society in general, but less so in certain public health centers.

Discrimination was reported as common in healthcare settings in most countries and was mentioned most often by transgender people. In Indonesia, MSM and TG experience increased stigma and discrimination as a result of recent political debates and increasingly restrictive laws relating to sexual orientation and gender identity. Waria (TG) also face particular disadvantage and discrimination, as many do not finish school education due to stigma and discrimination, leaving them with limited employment options. Many face employment discrimination and rejection by family and community.

In Malawi, MSM are criminalized and FSW are marginalized under current regulations so that both populations experience stigma and discrimination from the general public, as well as from health care and social service providers. Across multiple behavioral studies, MSM reported being afraid to seek health services. Human rights abuses, gender-based violence, and 'self-stigma' were also found to be key inhibitors in accessing HIV services for both FSW and MSM (Ruberintwari et al., 2016).

Stigma and discrimination against PLHIV are still very present in Haiti, with only 12% of women and 23% of men reporting they would be tolerant of PLHIV in certain situations. While homosexuality is not illegal in Haiti, discrimination and hate crimes are prevalent. There is an increasing number of anti-gay protesters in Haiti as the global fight for marriage for all has increased in the media and police often refuse to acknowledge report of discrimination or violence against MSM.

In Mali, access to HIV services is hampered by two interrelated problems: stigma and discrimination, and poverty. Public health services are not sensitive to and often times overtly hostile to KP populations, who report that verbal abuse and refusal or delay of care and treatment is very common, particularly in services other than ARV treatment.

[19] These assessments have been conducted in 20 countries: Benin, Botswana, Cameroon, Democratic Republic of Congo (province-level), Cote d'Ivoire, Ghana, Honduras, Indonesia (selected cities), Jamaica, Kenya, Kyrgyz Republic, Nepal, Mozambique, Philippines, Senegal, Sierra Leone, South Africa, Tunisia, Uganda and Ukraine.

Drug use is highly stigmatized in Cambodia, creating a barrier to accessing services for PWID and PWUD. This stigma is doubled for women who inject or use drugs, who are regarded as engaging in gender-inappropriate behavior.

The Kenya National HIV and AIDS Stigma and Discrimination Index (2015) showed that key populations (MSM, SW and PWID) experience double stigma associated with their sexual behaviors, practices and HIV status. Children living with HIV were also significantly affected as a result of stigma, which could limit access to services. According to above-mentioned survey, 55% of those of the general population participants surveyed believed that HIV is spread by SW, while 44.8% believed that MSM and drug users deserve to get HIV.

Another key concern is confidentiality of services. If key populations do not believe that their health information – or even the mere fact that they sought services – will be kept confidential within the health facility or the broader environment (e.g. the community or neighborhood in which they live, or within their family), this can be a significant deterrent to seeking services. In Armenia, OST clients report that their identities are regularly reported to the police, who in turn harass or extort them. In Belarus, NGO partners expressed systemic concerns about confidentiality as the country transitions to domestic financing and therefore ownership of prevention programming. If the government has access to patient databases on needle and syringe exchange, it provides them with a ready-made list of people who can be arrested for drug use. In the Philippines, general health staff are required by law to report any patient they feel might be a drug user to local police for registration and compulsory rehabilitation. Whilst this does not seem to happen often, focus group respondents report that there are frequently stories about this which deter many PWID from using health services.

Violence and Safety

Violence was reported to be greatest towards TG populations, particularly in the LAC region, though it was common for almost KP in most countries. In the Dominican Republic, the rate of murder of TG women is alarmingly high (47 or about 1.5% of the total estimated population in 2017). Sex workers also experience extremely high levels of violence, extortion and harassment, particularly from police and security forces, as detailed in the UNFPA multi-country study in Asia (UNFPA, 2015).

In the Philippines, the 'war on drugs' makes the PWID population extremely hard to reach, as self-identification among this population could lead to jail or death. In Lebanon, Egypt and Morocco there have been reports of torture and mistreatment by police officers, such as being beaten and raped. In Morocco, people who are perceived to be gay or transgender have experienced mob violence (Human Rights Watch, 2018).

In Papua New Guinea, a Stigma Survey was conducted in two Highlands Provinces in 2016 and revealed that over 70% of PLHIV had experienced violence as a result of their HIV status. A particular issue is the high prevalence of GBV experienced by women, MSM, male sex workers and TG people. In Sierra Leone, during the field visit, HIV prevention programs for MSM were observed to operate under strict confidentiality and focus group participants reported frequent raids and violence from police and society.

The legal environment and the role of law enforcement are significant in either perpetrating or protecting against violence. Men who have sex with men in Ukraine report that police regularly raid

cruising sites and assault, steal from or blackmail men found at these sites. In Uzbekistan, similar raids are reported targeting SW and PWID and against MSM, TG and SW in the Kyrgyz Republic. This is supported by a 2017 Amnesty International report showing widespread violence, sanctioned and perpetrated by state actors in Armenia, Belarus, Kazakhstan and the Kyrgyz Republic.

In Indonesia, focus group discussions revealed that harassment and violence against MSM and *Waria* (TG women) by police, security forces and community members has increased in recent years. Female sex workers also regularly experience persecution by the police, including the civilian police. Additionally, local policies have been put into place to shut down brothel areas in many cities, leading FSW to become 'indirect', rather than 'direct', which makes them even harder to reach for HIV prevention services due to no longer being found in these brothel areas or hotspots.

Work to address violence that targets KP by law enforcement and within communities seems to have been less successful than interventions to reduce stigma and discrimination. Despite the existence of the Observatory of Human Rights of Trans People in Dominican Republic, an organization that offers support to TG women after human rights violations, focus group members said there was little point in seeking redress as perpetrators would not be prosecuted and there would be retaliation, especially from the police.

In Guatemala, verbal, physical and sexual violence from the police against TG women is common. Submitting a complaint regarding a human rights violation is considered useless due to the extended perception of impunity of the police. Those who dare to report are usually re-victimized by law enforcement officers. Similarly, in Peru, violence comes from society, but also from public officers including healthcare staff and the police. Legal redress is considered unattainable, as the levels of impunity and judiciary corruption are very high.

Organizations that work to support key populations with services are also sometimes at risk as enumerated below:

- In Indonesia, outreach workers for MSM and *Waria* are afraid that they will be harassed or arrested for the work they do due to the uncertainties related to the changing legal status of KP.
- In Kosovo, outreach workers express concerns about identifying themselves as gay men when conducting outreach to MSM, both online and in person due to security concerns.
- Outreach workers at a CBO working with MSM in Togo report they risk violence if they talk to a young man as the workers can be accused of trying to encourage young men to have sex with men.
- In Nepal, police harassment of MSM, TG women and PWID is common and the lack of a national HIV anti-discrimination law makes access to health services and avoiding discrimination when seeking employment difficult.
- NGOs in Morocco confirm that abuse is targeted towards the outreach workers and plays an inhibiting role in the provision of HIV services to key populations (namely MSM, FSW and PWID).
- Not only is seeking care dangerous for PWID in the Philippines, but providing care or outreach services are a high-risk activity for providers, as extra-judicial killings by police are well reported in drug use areas.

Sex and Gender

There is lack of sensitivity to sex and gender across the full range of population size estimation and epidemiological monitoring, design, implementation and service monitoring in most countries. This is particularly notable for PWID, where women are often inadequately included or altogether excluded from population size estimates and then further excluded from package design and delivery because they remain an invisible population. Where women who inject drugs do access services, their service use patterns are rarely captured because data are not gender-disaggregated. Further, during these assessments it was challenging to find women to participate in focus groups with PWID beneficiaries (with the notable exception of an SR in Mombasa, Kenya), reflecting both heavy societal stigma and lack of engagement in services, which are not sensitized to their gender-specific needs. Similarly, sex work is often assumed to involve women only and the needs of male or transgender sex workers are often neither assessed nor addressed in program design and implementation.

A lack of sensitivity to gender and sex also underlies the lack of recognition of TG people as a distinct population, as there is often an assumption that trans women can either be served as biologically male clients of MSM programming, or that their needs will be met through programming designed for female sex workers. Both assumptions are harmful to TG people and programming must evolve beyond them.

Gender norms and practices that affect the ability of women, transgender people and sometimes men who have sex with men to access and maintain contact with health, justice, welfare and other services also act as a barrier. These norms and practices also impact significantly on people's ability to adopt and maintain safer sex behaviors, to know their HIV status, to access HIV treatment, care and support and to know and respond to the risk behaviors of their intimate partner. While there have been HIV and gender assessments in many of the countries assessed, progress in addressing these gender norms and practices has generally been slow. It is also not clear to what extent these gender assessments cover the intersectionality of gender and KP.

Local level collaboration

One strategy for addressing critical enablers that appeared to be more common in the ESA region than in other regions is the use of provincial, county and/or ward committees to guide local key population programming. Each region of Madagascar has a Regional Task Force (RTF) that is responsible for improving coordination at a local level. In Mahajanga, the RTF brings together the chief of the region, the regional director of health, other health personnel, NGOs and representatives of MSM and FSW. In this region the RTF has included important stakeholders such as municipality authorities and provides a platform to discuss key population issues.

In Kenya, regular engagement between implementers and county governments, local chiefs and community leaders has facilitated service provision, reducing community backlash and interference during outreach. There are 17 county-level KP technical working groups with multi-stakeholder dialogue and engagement. During the country assessment visit, the effects of these local efforts were seen when the majority of key population implementers reported that they are largely left alone by law enforcement and the community to provide services and able to carry on with their work. Implementers report cultivating relationships with landlords for the drop-in centers to ensure they are well aware of how they intend to use the space (there was one exception in the Coastal region, where one implementer reported having their offices raided by police).

Overlapping Identities and Risk Behaviors

As noted above, there are multiple issues related to overlapping identities and risk behaviors, including sex workers who inject drugs, men who have sex with men who are also sex workers and/or inject drugs, PWID who are selling sex, etc. One way of trying to ensure that high-risk behaviors are addressed has been to establish national key populations councils such as the one that exists in Kenya. Madagascar key informants indicate that the country is applying for technical support to the French 5% Initiative to create such a network for key populations that would ensure more coordination and improve collaboration between the various NGOs and networks.

While key population package design and implementation is built around defined population characteristics, the experience of individuals is often quite different. One individual may be regarded by policy-makers and service providers to belong to more than one key populations. At the same time, engaging in multiple risk factors does not necessarily correlate to identifying as a member of a key population, nor to engaging as part of a community of others with similar risk factors, e.g. a man who has sex with other men but also has sex with women may not identify himself as gay or even as MSM; a woman who engages in transactional sex for food while her husband is working as a migrant laborer abroad may not consider herself a sex worker. The concept of key populations has always been slightly problematic as it does not describe or confer an identity on a person, it only describes behaviors that they are involved in. These limitations should be kept in mind while reading the following sections, which present population-specific findings regarding implementation.

Population-Specific Observations

Men Who Have Sex With Men

The quality and availability of MSM programming varies widely across countries and regions, though it is encouraging to see that all countries assessed are implementing some form of MSM interventions. Programs in the WCA region are the most nascent, with drop-in centers and other services providing condoms and lubricant to groups of MSM.

In many countries, the existence of gay men's CBOs and NGOs and gradual strengthening of their HIV programs by donors over time, has led to these organizations taking a key role in providing prevention services, increasingly community-based testing and sometimes ART and clinical care for MSM.

Outreach and drop-in centers are the main vehicle for prevention activities, though in recent years the focus of outreach has changed significantly, from mobilizing a cadre of outreach workers to provide condoms and lubricants, IEC, BCC and referrals in a set of defined venues (bars, clubs, parks, transport hubs) across urban areas to a strategy that is more focused on reaching unreached people with HIV and STI screening and testing and linkage to ART and clinical care and support. This has seen a shift to hiring peer navigators and keeping them to ambitious performance targets around referrals to testing and HIV-positive yield among peers tested (Indonesia and the Philippines). In Angola, key informants suggested the payment process for peer educators (based on the number of HIV tests carried out) may be leading to some indiscriminate testing. This notion is supported by HIV positive rates in program interventions ranging from 1-2%, much lower than HIV prevalence reported in surveys for KP (as discussed further below).

The availability of social media as a way for men to meet other men for sex is reported to have to significantly changed outreach practice in many countries (Indonesia, the Philippines, Ukraine,

Mongolia, Myanmar, Morocco, Guatemala and the Kyrgyz Republic). Men no longer need to depend exclusively on venues as a way of meeting each other, meaning that they are not as easily accessed by venue-based outreach. Practice in this area varies across regions and countries, particularly in relation to privacy, ethics and security demonstrating the need for global or regional guidance and capacity development.

The consistency and success of outreach programs is determined to some extent by the legal, political and social environment. In countries where stigma, discrimination and violence against MSM is prevalent, outreach programs are more tentative and less able to implement higher-reach strategies. This is a changing environment and not consistent across a particular region – for example in Asia and the Pacific, policy and forecasted legal changes in Indonesia have resulted in a shrinking back of MSM outreach as outreach workers fear harassment and even arrest, while the MSM program in the Philippines is expanding under supportive policy.

Coverage rates with a defined package of prevention services vary from high rates (98.0% in Cape Verde, 85.6% in Mauritius, 80.0% in Kazakhstan and 72.2% in Haiti), to lower rates (1.5% in South Africa, 4.0% in Lebanon and 4.1% in Lesotho). It should be noted that in both Kenya and Botswana, the program data examined by assessors against the nationally accepted PSE showed results greater than 100%. The average across the countries for which national coverage could be derived was 37.9%[20] (see Table A5 in Annex 5). It should be remembered that PSE for MSM in some countries were found to be problematically low, so this may be an overestimate of coverage.

One element of the package that was consistently unavailable in programming was PrEP. Pre-exposure prophylaxis (PrEP) for HIV infection was increasingly available in Thailand, Kenya and South Africa. There are pilot programs in Georgia and the Philippines and another pilot is about to start In Ukraine. However, a pilot program was recently suspended in Indonesia.

Community-based screening by MSM peers is increasing MSM access to HIV testing in several countries (Ukraine, the Philippines and South Africa). In other countries, government and NGO testing services provide community-based testing at MSM events or crowded venues2 and work with MSM outreach workers to provide post-test counseling and linkage to treatment and care (Indonesia, Peru, and South Africa). Other initiatives to increase access to HIV and STI testing (and onward treatment and care) for MSM include the Competent Clinics program implemented by Anova in South Africa that provides training and coaching to government clinics, particularly in rural areas where NGO outreach is likely to be less available (see Box 2 below). Under this initiative the entire staff of a government clinic is trained and coached over time towards certification of the clinic as an MSM Competent Clinic. Other initiatives include funding for MSM-led clinics (like the Love Yourself clinics in the Philippines and Humsafar Trust clinics in India).

Many countries are reporting difficulties in encouraging MSM to test for HIV. The reasons given are remarkably consistent across regions and can be summarized as: not wanting to be stigmatized as a positive MSM in their own gay community; not understanding (or trusting the health benefits of knowing if they are living with HIV); fear of further discrimination by family, community or employers;

[20] Figures above 100% were excluded from this averaging exercise.

not feeling sick and therefore not wanting to know; and, fatigue with HIV and safer sex messages (Philippines, Ukraine, Georgia, Peru, Dominican Republic, and Morocco).

Setting ambitious testing HIV targets for MSM NGOs has certainly increased the number of tests performed, but there are some concerns identified in the site visits to SR about how well targeted the testing is. Sub-recipients (SR) in many sites are reaching (or exceeding) testing targets, but are testing the same individuals each quarter, semester or year (depending on the definition of reach in their program). This means that their positive yield is well below the estimated prevalence in their target community. This is a difficult area, as target prevalence is usually derived from an IBBS study that may have taken place some time ago (and even in a different site), but it is still important that outreach teams involved in testing can demonstrate that they are succeeding in reaching sufficient numbers of MSM with HIV who do not know their status and are therefore not on treatment. There is evidence of outreach teams monitoring both testing targets and yield targets in MSM programs in South Africa, Mongolia, the Philippines and Indonesia.

Linkage to treatment for newly-diagnosed MSM with HIV is identified as part of the package in most countries, but even in some countries where relationships between NGOs and treatment centers are well developed, this remains the weakest part of the cascade. There are several reasons for this. In some countries, community-based screening by peers is well established, but still requires formal confirmatory testing at a testing site. The screening may take place after hours at a venue or event and the referral to the testing and treatment clinic may not be effective. Some models involve diagnosing people by rapid test in the community, but there was no transport allocation to assist the person to get to the clinic. In other sites, outreach teams are focused primarily on counting their testing numbers and are accompanying MSM to clinics for testing but not involved in post-test counseling and onward case management.

Some NGOs return to the clinics each month to gather information on the number of people diagnosed with HIV as a result of their referrals and report this to government and donors, but have no information on whether the person had accessed ART treatments or onward care. Examples of this lack of data (and lack of understanding of the health rationale for HIV testing) include one MSM NGO in the ESA region that reports reaching 3,000 MSM and linking only 21 to ART; and another NGO in Indonesia that has exceeded its quarterly testing target, identified over 300 newly-diagnosed people living with HIV in the period, but has succeeded in referring less than one-third to clinical care and ART.

Only the following countries show evidence of program data on the treatment outcomes for MSM with HIV: Georgia, Haiti, the Kyrgyz Republic, Lebanon, the Philippines, South Africa and Ukraine. Some others have limited IBBS data, when enrolment on ART is included as a question for people who already know their positive status.

Box 2: Anova clinic support levels

In South Africa, the NGO Anova (a Global Fund sub-recipient for MSM services) assists government clinics to become more MSM friendly through a capacity building and accreditation scheme. The elements and results include:

Two Centres of Excellence (CoE) in Johannesburg and Cape Town, funded by USAID. Anova directly manages these clinics, employing a doctor, PHC nurse, and counsellors and data capturer.

Twelve DoH Regional Leadership Sites (RLS) around the country, where 100% of the staff, from unskilled to management, are trained as appropriate to their role, on the rights, needs and medical concerns of MSM. Ongoing TA is provided, coordinated by nurses known as 'champions'. GF may also fund KP specific, or essential equipment.

336 DoH Competent Clinics (CC) around the country (133 GF funded and 203 USAID funded), where 75% of all staff, from unskilled to management, are sensitized on MSM concerns and sexual orientation and gender identity (SOGI) awareness, and/or trained in clinical concerns and appropriate services and management for MSM.

One of the consistent themes in the discussions with MSM service providers during these assessments was the difficulties they were currently facing in attracting funding from government or donors for other elements of the service package beyond outreach for testing. In some countries there were significant allocations for peer case management and PLHIV support (Indonesia in particular), but in most countries with MSM outreach programs there was a frustration expressed that they were not able to offer the full range of services set out in the package and that these services were not accessible elsewhere in the health system for MSM, either because of stigma and discrimination or because they were limited for all populations.

These included drug and alcohol treatment services, mental health services, relationship counseling, sexual assault services, HIV treatment literacy, PLHIV support groups, legal aid and advocacy, housing and other welfare services. This issue has become even more critical for countries that have experienced significant reductions in the Global Fund allocations from the 2015-17 to the 2018-2020 programs. This shrinkage in the range of services available through MSM NGOs is part of the reason why issues like reluctance to be tested, poor linkage to care and loss to follow-up are not being fully addressed.

SEX WORKERS

All countries assessed have some form of programming for sex workers, but intensity and outcomes vary significantly.[21] Interpretation of the elements of the comprehensive service package also vary significantly, sometimes dictated by narrow donor demands (due to limited funding), sometimes by the social and political environment in which the programs operate and often according to the degree to which programs and services are KP-run, KP-driven or at least KP-responsive.

Condom and lubricant distribution remain a key element of all programs, but consistency and quality present issues. In some countries, procurement and supply systems are weak (or in transition) and result in lengthy stock-outs (Papua New Guinea, the Philippines, Sierra Leone, and Madagascar). In other countries bulk-buying and distribution of low quality, unacceptably thick condoms and the

[21] Some countries use different terminology to describe sex workers. As examples, Afghanistan uses the term *Women with High Risk Behaviors* (WHRB) for this population; Uzbekistan refers to them as *Persons providing sexual services for consideration* (PPSSC). For the purposes of this report, all individuals engaging in the trading of sex are referred to as sex workers, in line with international norms.

absence or intermittent supply of lubricant present problems for consistent condom use. Tight restrictions on supply numbers per sex worker in some countries also an issue, as numbers in some countries are too low to meet need and sex workers are forced to either buy or go without (Benin, Cameroon, Mali and Sierra Leone). Condom use data is widely available, but there are variations between IBBS and program data (with program data often significantly lower due to interruptions in availability. For non-venue-based sex workers, carrying condoms can still result in arrest, fines and/or violence and this works against the effectiveness of condom distribution programs (Kyrgyz Republic, Philippines and Indonesia). Female condom access is also problematic in many countries where female condom use has become an acceptable part of sex work practice.

Coverage rates with a defined package of prevention services vary from high rates (98.4% in Cambodia, 86.5% in the Seychelles and 83.0% in Thailand), to lower rates (0.7% in Pakistan, 5.3% in Kosovo and 6.7% in Cameroon). It should be noted that in both Kenya and Togo, the program data examined by assessors against the nationally accepted PSE shows results greater than 100%. The average across the countries for which national coverage could be derived is 45.1%[22] (see Table A5 in Annex 5).

Harassment, violence and cycles of bribes/fines by police remain a problem in many countries and work against individual health and program outcomes. Consultation with implementing NGOs in many of the countries that received in-country assessments revealed that whilst responding to this (by assisting at police stations when sex workers were arrested or detained, providing legal support) had been a funded part of their work under previous grants, the focus on testing targets in current grants left little room for this work (Guyana, Indonesia and Kenya).

The results of this change plays out in different ways. In Indonesia for example, SW peer outreach workers, under a new outreach model, move from venue to venue with weekly monitored targets for testing and HIV yield. When targets were not being met, more mapping is done to find new venues that had not been accessed. In South Africa, sex worker NGOs also have HIV testing targets, but are taking a more 'cohort' approach returning regularly to clusters of sex workers to provide HIV treatment adherence, STI and reproductive health assistance (and broad welfare assistance including counselling). This is partly explained by the high HIV prevalence in these clusters (anecdotally 80% – 100% in some clusters) and therefore a reduced pressure on finding untested sex workers. It is also driven by the fact that the organization had a long history of working with marginalized women and is not prepared to narrow their program too much. Working on connection to the clinic, maintenance of ART and reproductive health then becomes both a prevention and treatment outcome for their clients. The South Africa model also includes innovative partnerships with government mobile clinics that visit sex work venues regularly bringing HIV and STI and reproductive health services directly to women free of charge.

BOX 3: CASE STUDY ON THE LIFELINE COHORT APPROACH

There is a split occurring between the types of outreach programs to key populations, with many outreach workers being asked to concentrate on finding new HIV cases at the expense of ongoing work with current clients. This has been the outcome of much of the "test and treat" rhetoric of recent years. There may be significant benefits in continuing to undertake a 'cohort' approach in which an outreach team strives to visit all or almost all members of a

[22] Figures above 100% were excluded from this averaging exercise.

key population in a given geographic area on a regular basis with the objective of preventing HIV among those who are HIV-negative and preventing onward transmission and facilitating linkage to care among those who are HIV-positive.

Lifeline Durban provides services in two of the six districts (Ugu and Ilembe) outside Durban in the province of KwaZulu Natal in South Africa. At the time of visiting, the program operated in three sub-districts of the Ugu district, with a total of 58 SW sites. The program in Ilembe district had been curtailed due to violence in the area.

Most of Lifeline's work is carried out using Standard Operating Procedures (SOPs), tools, and systems provided by NACOSA (SW PR for South Africa). SR management, staff and peers, require orientation to the program and systems, and training in a range of key competencies. NACOSA offers a basic two-week orientation -training course for key SR staff. Lifeline Durban also provides a 10-day counseling training course for lay counselors. Professional nurses employed by Lifeline complete Department of Health (DoH) training to become accredited for ART initiation and management, enabling them to provide direct services to sex workers living with HIV.

Peer-led outreach is the cornerstone of the sex worker program. Peers are recruited and trained, then allocated to teams. Following a standardized set of outreach processes, peers engage with sex workers most appropriate to the nature of sex work in the area, day or night outreach, and whether or not this is the first encounter. Working in the relatively contained and stable rural communities of southern KZN, Lifeline Durban has designed peer outreach using a cohort approach to good effect. When introduced to new SW, peers attempt to link them into an existing group or cohort, planning, and tracking a series of contacts and progressive education with the same peer educator over time.

For the 58 SW sites, site profiles are regularly updated using a Site Mapping Tool to include estimates of SW numbers, age ranges, and workspaces, as well as HTS yield totals per site. While useful for continuously triangulated population size estimates and useful in budgeting, additional details on current issues, needs, rights or access would enable more thorough micro planning.

Lifeline cooperates closely with DoH mobile clinics, which offer HIV test and treat, TB testing, STI diagnosis and treatment, pap smears. Once nurse accreditation is complete, they will also offer ART and PrEP. The mobile clinic visits 25 SW sites each month over around 8 days per month. The SR provides social mobilization, referrals and follow-up, and markets the mobile's schedule and services into target communities. A representative of the mobile clinic told consultants: "It would be difficult if Lifeline wasn't here. We can't get the girls organized. We see the peer educators as our partners" Following contact with the mobile clinic, SW may be referred to their local permanent clinic, while remaining in a cohort supported by a peer. This model has been found to be both effective and suitably connected into the public health system.

Key factors in Lifeline's successful approach include the organization's long history of work with sex workers and other vulnerable populations in the Durban region as well as the use of its core strength in counseling training as a key service provided to clients, and the close linkage that the NGO has formed with Department of Health facilities such as mobile clinics.

While the cohort approach may not be the most appropriate form of service delivery in all circumstances, it can be very effective in maintaining low levels of HIV transmission even in circumstances of a high community and key population prevalence of HIV.

One of the biggest challenges to the 'cohort' system is the high mobility of sex workers in many countries. Sometimes this is to follow seasonal fluctuations in the availability of clients (Guyana), and other times it is due to crackdowns that close sex work precincts and cause sex workers to move to other sites, or to go 'underground' (Indonesia).

Some implementing agencies report a fatigue (or even resistance) among their clients, who are tired of safe sex and HIV testing messages and are more interested to engage with services about their children's health and welfare, their violent relationships, their unstable housing, their economic fragility and so on. Some programs have funded safe-spaces for sex workers to gather that deal with more than just HIV and STI needs (Kenya, Indonesia, and South Africa). There is a general sense among sex worker NGOs that this limiting of focus is detrimental.

Stigma and discrimination by health service providers is a consistent theme among consultations in many countries also. Some overcome this by having peer navigators in clinics. Not surprisingly, in places where stigma and discrimination are high there are issues when sex workers were being referred to public facilities (Cameroon, Benin and Papua New Guinea). This is dealt with in several ways – identifying SW-friendly public clinics (Indonesia), setting up a public system of Social Hygiene Clinics (Philippines) and having peer navigators in public clinics (Guyana, Madagascar and Papua New Guinea).

Services for STI are generally available at no cost, but there are problems with availability of test kits and STI medications in several countries (Papua New Guinea, Morocco, Tunisia and Togo). Some countries have regimes of sex worker registration that included compulsory health checks and issuing of an up-to-date health card to enable women to engage in sex work (Peru, Philippines).

Access to reproductive health and contraception services for sex workers is inconsistent among the countries assessed. Some countries include this in the scope of work for NGOs and others are more focused on testing and linkage only. These inconsistencies are particularly evident in programs dealing with young women involved in sex work. Some have basic programs on reproductive health and helped assist young women to move from regular use of 'morning after' pills to modern contraceptive regimes. Others do not include this, and it is clear in the focus groups that their young clients have a very limited understanding of their reproductive health. Many of these programs are dealing with difficult issues around young girls involved in transactional sex (Papua New Guinea, Philippines and Kenya) balancing a harm reduction approach with laws about referral to child welfare services.

There are some issues with the outreach workforce, including differentiated pay and conditions between donors – some pay stipends and bonuses for reaching targets and others do not. This results in high dropout rates of outreach workers for some programs and additional recruitment and training costs to replace them (Angola and Indonesia). There are also issues with the proportion of peer outreach workers to case managers in many countries. Case managers are reporting very high

caseloads (up to 120 sex workers with HIV per case worker - Kenya) because resources are skewed towards new case finding.

As with MSM, few countries record the health outcomes for sex workers with HIV as a disaggregated sample (only Bangladesh, Cambodia, Cameroon Haiti, Kenya, Philippines, Togo and Vietnam). This makes it impossible to track the success of referral of newly-diagnosed sex workers with HIV in most countries.

PEOPLE WHO INJECT DRUGS

While almost all of the countries assessed with HIV epidemics among PWID identify them as a KP and have some commitment to harm reduction principles and services in their national reference documents, the coverage of these services among PWID remains consistently low. The main barriers to service access are criminalization, stigma, discrimination and violence, crackdowns associated with the war on drugs, compulsory registration of drug use status, and forced rehabilitation systems. Support for harm reduction remains highly politicized in some countries, with withdrawal of services under more conservative governments. The current prolonged crackdown on drug use in the Philippines has seen a significant reduction in service access for PWID, though PWID organizations continue to provide services in difficult conditions.

Coverage rates with a defined package of prevention services vary from high rates (90.0% in Kazakhstan, 83.8% in Mauritius and 67.8% in Nepal), to lower rates (4.0% in Lebanon and 5.5% in Nigeria). It should be noted that in both Kenya and Madagascar, the program data examined by reviewers against the nationally accepted PSE show results greater than 100%. The average across the countries for which national coverage could be derived is 39.6% (see Table A5 in Annex 5).[23]

Outreach programs are facing some of the same issues identified in the MSM and SW programs outlined above – funding reductions and an increased focus on 'test and treat, meaning that some traditional elements of welfare support have been wound back. Some countries, like Ukraine and Morocco maintain relatively comprehensive programs. Like MSM and SW programs, outreach worker HIV testing and reach targets are high in many of the assessed countries and take priority over a broader set of interventions. Peers suggest in focus groups that the low quality of outreach services may be related to the need for each outreach worker to reach high numbers of clients (more than 200 clients per month in Armenia; more than 190 per month in Moldova; 60 per month in Ukraine). They suggest that resources have been shifted to these targets and away from providing commodities like sterile water and services like naloxone. As noted with the other KP, some implementing NGOs are returning very low HIV positive yield from outreach testing, indicating that they may be retesting the same people each time or testing in an indiscriminate manner.

Supply of needles varies also. Few services reach the 200 needles per PWID per year recommended by the WHO technical guidance on setting targets (WHO, 2012). Indicative average annual allocations per PWID include: 157 in Afghanistan; 119 in Ukraine; 66 in Benin; 41 in Belarus; and, three in Indonesia. Sierra Leone and the Philippines currently do not include needle distribution in PWID programs.

[23] Figures above 100% were excluded from this averaging exercise.

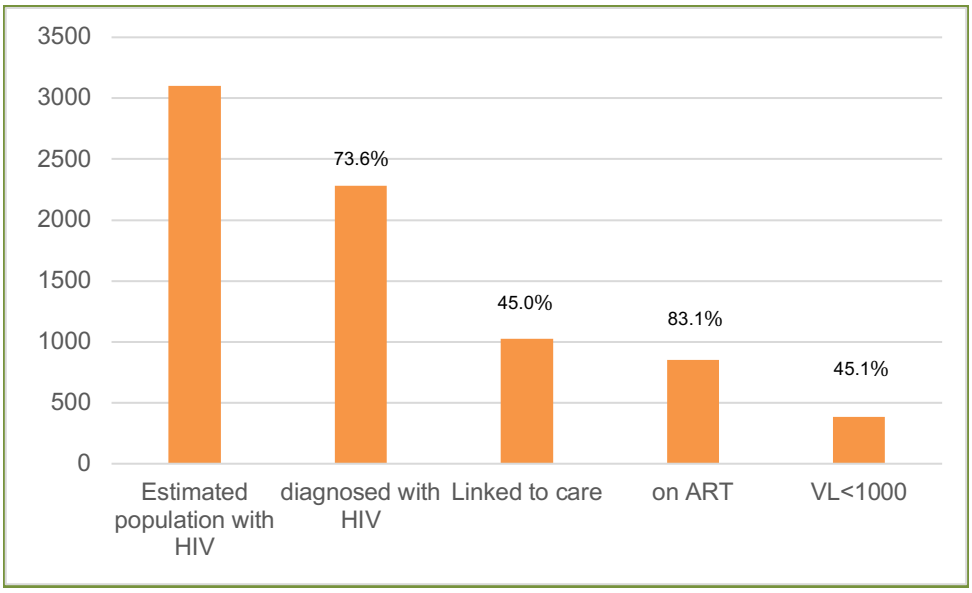
Injecting practices are changing in some countries in response to change drug availability. Crackdowns on opioid availability have led to a reduction in injecting in Philippines and Indonesia; across the EECA region, on the other hand, shortages of opioids have led to injecting of other drugs, sometimes requiring more frequent injection. Changing drug use has also led to changes in sexual risk behavioral patterns. It also reduces demand for OST, as OST is not effective as a substitute for other drugs, including stimulants. Implementers in Indonesia note some issues in reporting contact with drug users who have stopped injecting, as they are no longer counted as 'reached' under project reporting definitions because needles and syringes were not distributed to them. In countries where opioid use is still high, implementers stress the need for expanded overdose prevention programs.

Opioid substitution therapy (OST) coverage is low in most countries where it was available. It is highest in Georgia (32.0%) and Morocco (29.0%), and relatively low in other countries (12.0% in Indonesia, despite reasonably good public primary care clinic delivery models; 8.8% in Kenya; 3.2% in Ukraine; 6.0% in Kyrgyz Republic; and, 4.3% in Nepal). Several reasons for these low figures are provided, including restrictive hours and policies, low budgets, low geographic coverage, and stigma and discrimination by services providers.

Levels of knowledge of HIV status among PWID are higher in some countries (56% in Georgia, and 47% in Ukraine) but low in other countries (17% in the Philippines, 10% in Pakistan and Armenia, and less than 1% in Kosovo); still, almost all countries fall below the UNAIDS targeted 90% knowledge of status. Hepatitis C virus (HCV) testing is increasingly available and accessible in many countries, revealing very high prevalence in most PWID populations. Inexpensive access to HCV treatment is under discussion in many countries. Malaysia commenced a treatment access scheme in March 2018 at a cost to patients of US$240 per course. India has also announced the roll-out of a free treatment access scheme for HCV.

There are very limited data on linkage of PWID with HIV to clinical care and ART. Some countries still have services that do not consider PWID with HIV as good candidates for ART (Tunisia). The Kyrgyz Republic reports that 37% of PWID diagnosed with HIV are on ART. Belarus reports 30% and the Philippines reports 13%. The figure for Indonesia is very low (1.3% from IBBS). As an example, the Kyrgyz Republic cascade is presented in Figure 10.

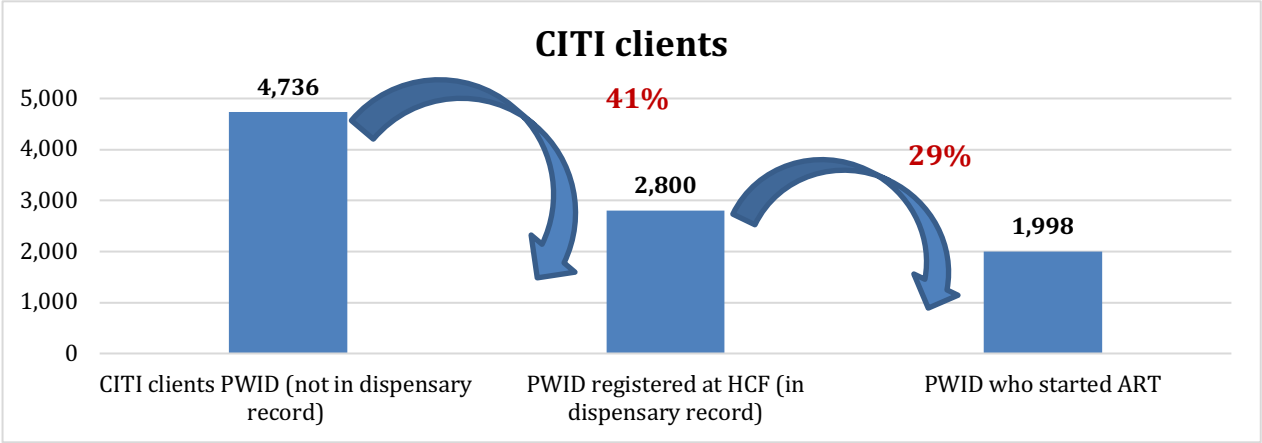
Figure 10: Continuum of care for PWID, Kyrgyz Republic, January 2017



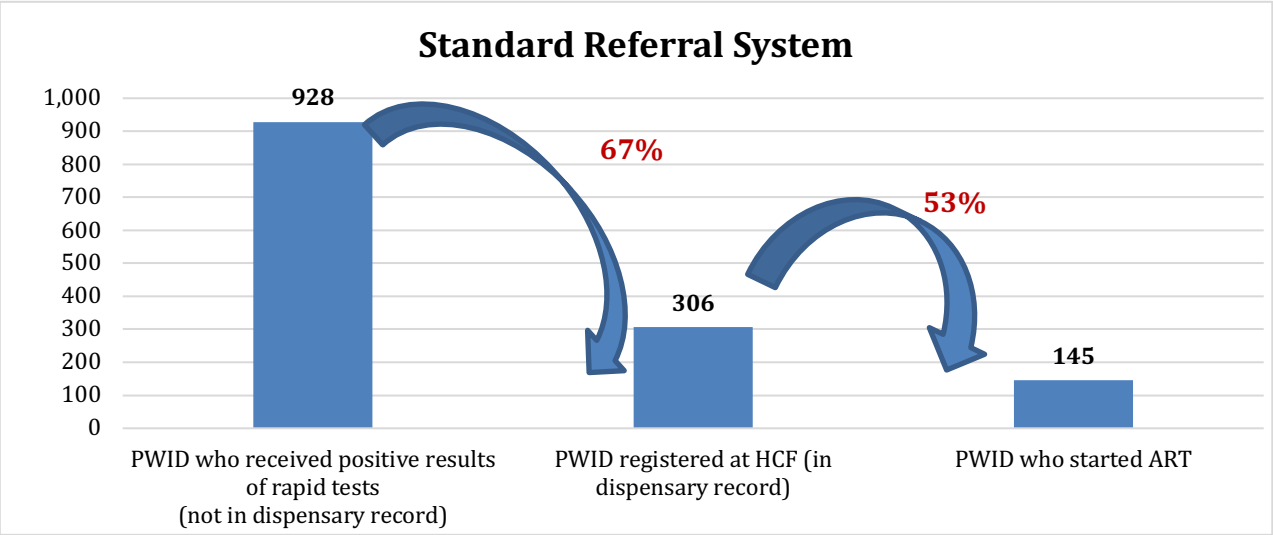
Source: Republican AIDS Centre, Kyrgyz Republic January 2017[24]

In Ukraine, a case management approach has improved linkage to care, resulting in early initiation of ART. The Community Initiated Treatment Intervention (CITI) approach has improved the cascade indicators among PWID, compared to the ordinary referral system (Figure 11): 92% of all PWID clients who were initiated on ART in 2017 were CITI clients.

Figure 11. Improved PWID Case Management Effect on Cascade in Ukraine



[24] The percentages in the graph are proportion of the number from the previous bar – that is 45% of the people diagnosed with HIV have been linked to care, etc.



Source: Alliance for Public Health

TRANSGENDER PEOPLE

The Asia and the Pacific and Latin America and the Caribbean regions were the only two with significant programming for TG.

All assessed countries in LAC, except for Haiti, address TG women as a separate key population for HIV prevention, testing, treatment, care and support. In-country assessments included TG women as a focus KP in four countries, the largest of any region. The situation of TG women in Peru, the Dominican Republic, Guyana and Guatemala is characterized by high levels of verbal, physical, psychological and sexual violence (rape, extortions, robberies, harassment, beatings and murder) from family members, partners, clients and the police. The cycle of poverty, under-nutrition, ill-health and violence is experienced more profoundly by minors, who are usually rejected by their families and need to leave school and home at a very young age. The use of alcohol and illegal drugs is high and is particularly associated with sex work. In most countries in the LAC region, TG women do not have access to gender-affirming treatment and medical services.

In the Dominican Republic, according to focus group participants, TG women have regular access to condoms, but no regular access to lubricant. Lubricant sachets, when available, are reported to be inconvenient to use and keep.

Transgender women in Peru have easy access to condoms, particularly if they declare themselves to be sex workers. Lubricant is rarely accessible for free in health centers, but somewhat more accessible through outreach activities. In any case, the maximum number of condoms given is 100 per month for TG women who are sex workers. This is not enough, considering that the frequency of customers can range from 10 to 15 per day.

Many TG women in Guatemala are reported to engage in sex work and are highly mobile. It is very hard to link and retain them in the health system, even when they are diagnosed with HIV. This is in partially due to mobility, but also to stigma and discrimination by health care workers. Focus group participants in Dominican Republic reported that TG women think rumors and gossip are used by other TG women who are sex workers to steal clients. Many who test HIV positive leave their neighborhood or city to live elsewhere.

Several leaders of the transgender community in Guyana participated in interviews and focus group discussions during the assessment and responses indicated that the TG community is rapidly collectivizing and differentiating itself from MSM-identifying communities. A USAID-supported network called Guyana Trans United facilitates a safe-space house and supports outreach efforts to deliver HIV prevention and testing services to this population. Findings from this assessment clearly indicate a need for a more data-driven response for transgender communities. A major barrier to this KP-specific response is the collection of transgender people-specific indicators, which is limited by a UIC that is formulated by a binary gender response option (M or F). Transgender people are asked to register with their biological sex/gender assigned at birth, meaning that their data is included with male data.

Across the ten countries in Asia and the Pacific where TG women are identified as a KP, service coverage data are available for seven countries, but not for all interventions. Afghanistan is not included because TG are not identified as a key population and for Pakistan, data on implementation of services for *hijra* or TG women is not verified and explored further due to the very limited availability of data.

Generally, coverage of services for TG is low for all interventions:

- Condom and lubricant programming data are only reported for Indonesia (56.2%) and the Philippines (42.0%).
- Coverage of HIV prevention programs range from 1.1% in Pakistan to 48.4% in Indonesia.
- IBBS data on behavioral interventions is available only for Pakistan at 8.9% and Philippines at 18.0% of the TG women population reached with a package of prevention services.
- Voluntary testing offered routinely is available for Nepal (13.6%) and Indonesia (29.3%).
- Knowledge of HIV status coverage is only available separately for Nepal and was only 13.6%.
- ART coverage is just 0.4% in Indonesia and 2.3% in Pakistan.

Coverage rates with a defined package of prevention services vary from high rates (100% in Guatemala and 82.6% in Dominican Republic), to lower rates (1.1% in Pakistan and 11.0% in Thailand). It should be noted that in Cambodia, the program data examined by assessors against the nationally accepted PSE shows results greater than 100%. The average across the countries for which national coverage could be derived is 37.0%[25] (see Table A5 in Annex 5).

In Indonesia, the Global Fund PR provides HIV services for TG women or *Waria*. The package of services for *Waria* includes condoms, lubricant, IEC brochures, and HIV and STI testing referrals. It is important to note that many of the SR, SSR, and Implementing Units (IU) that provide services to the *Waria* population also provide services to the MSM population. Therefore, many of the implementation details and challenges are similar. However, the needs of *Waria* are not the same as those of MSM and that many *Waria* face particular difficulties in completing school education and finding work (due to high levels of stigma, discrimination and harassment). There is also significant variation in risk context, needs and vulnerability within *Waria* populations.

In the Philippines there are several CBOs working specifically with transgender people. A TG-specific clinic has been set up in Manila and is attracting TG from across the National Capital Region and beyond. The clinic is run by transgender people. Staff and volunteers at the clinic indicated that access

[25] Figures above 100% were excluded from this averaging exercise.

to gender-affirming healthcare is a primary motivation for health seeking, though many TG cannot afford the work-up tests at clinics for hormone treatment and therefore self-medicate. A transgender health protocol is under development to assist integrating transgender health into all HIV services.

There are significant issues for transgender CBOs in some parts of the Philippines as they receive requests for support from very young transgender people (10-17 years of age). They report that many of these young TG are selling sex. This places the CBO staff in a difficult position as they are required to report sexual exploitation of children under law, yet they want to offer support, information, drop-in safe spaces and, connection with HIV and sexual health services. Some services have overcome the age of consent issues by gaining written consent from parents to support their children. Discrimination in employment is a particular issue for transgender people in many countries and for many TG women this reduces economic independence and increases pressure on some to return to sex work.

The work of transgender women in Guatemala is set out below:

BOX 4: TRANSGENDER WOMEN IN GUATEMALA LOOK FOR PROFESSIONAL ALTERNATIVES

Estimates say that there are around 5,000 transgender women in Guatemala, of whom 24% live with HIV. TG women are often excluded from the family or only accepted if they contribute with income to the household. Due to the deep stigma and discrimination, they are rejected in education centers as soon as they express publicly their identity. It is usual to meet TG women who are 12-14 years old in the streets of the Guatemala City light red district offering sex for money, shelter or food.

A study from 2010 identified that more than 95% of the Guatemalan TG women reported engaging in sex work, and that more than 65% of them had had more than 30 sexual partners in the last three months. In a surveillance survey from 2013, 68.5% of participants declared that they began engaging in sexual activity before the age of 15, and the median age of sexual debut was 13. (Ministry of Health, Guatemala, 2013).

Sex work for TG women in Guatemala takes place in very hard conditions. They are subject to violence from clients or the police, and to the extortion of gangs (called “maras”) who thread TG women to pay them fixed amounts and/or sell drugs to the clients or otherwise they will be killed. They are an extremely mobile population and their life expectancy is 35 years old, being murder the main reason of death.

Aware of these challenging environment, leading TG women’s CSO “Otrans” partnered with UNDP to offer the organization users the possibility to enroll in training courses to acquire professional skills such as hairdressing, beauty-styling or cooking. Those activities were not meant for TG women to leave sex work altogether, not at least immediately. For most of them, it was a way to explore other commercial activities as part-time jobs, as a complement to sex work, and to pave the way to make it a permanent activity in the future, when age would make sex work much less beneficial. Paradoxically, nevertheless, being commercially successful with these new professional activities made TG women a new target for gangs’ extortion.

The ultimate goal of the program is to help increase the life expectancy and quality of life of TG women in Guatemala. However, to be fully beneficial it needs to be part of a comprehensive approach to facilitate social inclusion, such as legislative reform to recognize sex identity and legal name change, and to eliminate violence and extortion targeting them.

Project volunteers also distribute condoms, provide peer education and referral for testing and STI services.

PRISONERS

Data on HIV and the reach and outcomes from HIV interventions in prisons are relatively scarce. Many countries have reliable data on HIV prevalence in prisons as they compulsorily test prisoners for HIV on intake. Prisoners are not identified as a KP for focus in any of the countries visited in this assessment.

For the EECA region, the Ukraine reported that around 13% of prisoners received free condoms during 2017, which had decreased by about 50% since 2011. Access to condoms (but not necessarily lubricant) and needles and syringes is reported as common, despite only five countries reporting condom use data and two reporting needle and syringe data.

For the six countries in EECA with HTC data available for prisons, the percentage of prisoners who have been tested for HIV and knew their result ranges from 13.4% in Belarus to 64.6% in the Kyrgyz Republic. Only Armenia (77.3%), the Kyrgyz Republic (69.6%) and Moldova (61.3%) have data available on ART coverage in prisons.

Opioid substitution therapy is available in seven facilities in the Kyrgyz Republic (one of which is a female prison), and NSP was introduced within prison facilities in 2005 and is available in 10 facilities. In Armenia, OST was available at nine sites in the country's 12 prisons until 2016, when this service stopped being provided. Negotiations are under way to introduce OST services in penitentiary institutions in Georgia. OST is provided in two of the four prisons in Kosovo - the long-term male prison and the prison for women and juveniles. Notably, around half of the countries assessed in EECA report the implementation of TB, STI, and hepatitis testing and treatment in prisons.

Out of the six in-country assessments carried out in Asia and the Pacific, only Afghanistan identifies prisoners as a key population. However, prisoners were not selected as a key population of focus for the in-country assessment in Afghanistan. Only India and Thailand among the desk review countries includes prisoners as a key population. Only Afghanistan reports coverage with a package of prevention services (42.0%) for prisoners. This assessment did not identify any services for female prisoners. There is no treatment of STIs for prisoners nor hepatitis B vaccination, nor treatment for hepatitis C virus identified in these assessments.

In the Philippines, a recent assessment of barriers to HIV service access has identified severe over-crowding in prisons (due to the illicit drugs crack-down) as a significant issue for PLHIV in prison. Prisons health services are unable to meet the care demands and prisoners are being administered ART in public by trusted inmates. Many prisoners report ceasing their ART either because of breaches in confidentiality leading to harassment and violence, or because long queues for food and water leave little time to queue again for medicine (Baseline Assessment: Barriers to HIV Services, Philippines, 2018, in press).

Only three out of the seven countries assessed in Middle East and North Africa (Egypt, Iran, and Tunisia) identify prisoners as a key population in their national reference documents and outline a separate package of HIV services for this population. Iran has the most comprehensive package of

services for prisoners and it is largely in-line with the *Consolidated Guidelines* and other foundational reference documents issued by the UN. Notably, the provision of clean needles and syringes is not present in any of the packages of services for prisoners in the region, and the only harm reduction intervention mentioned is within Iran's package (OST). Tunisia outlines non-OST drug treatment services as part of their co-morbidities interventions.

Morocco's National Strategic Plan identifies prisoners as a population who will benefit from targeted interventions with a limited geographical coverage, since this population is only located in prison settings. There are no details provided in the plan regarding a separate package of services for prisoners, or further information regarding what the targeted interventions are. In Jordan, prisoners are identified as a vulnerable population, however, there is no designed package of services available.

For Western and Central Africa, among the ten countries selected for assessment in the region, only four identified prisoners as a key population in their national strategies. Out of the four, two were in-country assessment countries (Benin and Togo). This section focuses on the data from the Benin and Togo, though prisoners were not the focus of these assessments.

In Sierra Leone, official data are lacking on the coverage of HIV services in closed settings. The CCM describes some support groups that are occurring for PLHIV in prison settings. During site visits to ART clinics, several physicians described a lack of early initiation of ART in prison and patients only being referred to treatment when they were gravely ill with end-stage HIV illness. No data could be found to corroborate these statements.

In Togo, the PSE and mapping for 2014 lists six prisons with HIV programming and four NGOs working within the prison system, although overall, prisons are found to be extremely underserved by HIV programming in terms of package of services, coverage, frequency of interventions and available resources.

ANALYSIS: ARE SERVICE PACKAGES BEING IMPLEMENTED CONSISTENTLY?

The availability of services for people from key populations appears to have benefited from the work done on developing and disseminating the *Consolidated Guidelines*, and also from the pressure and funding that donors have exerted in countries where focusing on illegal or marginalized populations would have been difficult. The downside of this is that much of the key population programming that is provided comes from donor funds rather than from governments and has operated somewhat outside, or in enclaves within, the mainstream health system in many countries. Despite this, there are numerous examples of innovation to integrate HIV prevention, treatment, care and support into national and jurisdictional health systems and services.

Some of the issues that persist in terms of consistent implementation of service packages are discussed below.

Condom programming is in place but there are many problems with appropriate quality, consistency of supply and availability of appropriate lubricant: There are consistent problems in having the right condoms consistently available to the right people at the right time. Bulk-buys of low quality condoms present problems for sex workers whose clients have the economic power to purchase unprotected sex. Female condoms and lubricant are not consistently available. Procurement, storage and supply systems in some countries are fragile and lead to lengthy stock-outs.

Increased levels of HIV testing but concerning results in linkage to treatment and care: Despite considerable resources going into key population outreach and drop-in centers in many countries, levels of knowledge of HIV status remained low in many populations in many countries. The 90-90-90 targets, the *Consolidated Guidelines* and the use of the prevention-to-treatment cascade focused programming attention on this, and in many cases KP outreach services have been significantly re-modeled to focus more sharply on testing. Testing targets are being met in many programs, but there is inconsistent attention to linkage to treatment and care for newly-diagnosed KP with HIV. Some programs are regularly re-testing the same populations every quarter, and HIV positive yield levels in some programs are well below the estimated KP population prevalence, indicating that the models being used may not be reaching under-diagnosed sub-populations.

Ambitious testing targets leave little time and resources for a broad health engagement with KP: NGOs targeting KP are reducing the range of services they provide under pressure to meet ambitious testing targets. Key populations have a range of health needs and wish to engage with organizations that can provide a range of services. The narrow focus on testing and yield, and the need for outreach workers to move quickly on to new sites, works against a broader health approach that tries to encourage a long-term health and support connection between key populations and the organizations that work with them. It also detracts from the necessary work of keeping HIV-negative KP negative. People from NGOs and communities complain that there is little time or resources to work on critical enablers like addressing violence, drug and alcohol use, mental health struggles and economic insecurity that would support long-term health and help people to stay HIV-negative.

Social media outreach to KP is increasingly becoming an essential element of services, but requires standard setting and guidance: NGOs targeting KP, particularly MSM and transgender groups, are increasing using social media to access unreached populations. There are issues, however, with ethics, privacy, and security that need to be addressed. There is no standard, globally-accepted guidance on

these technical aspects, and not always the resources or capacity to adapt global guidance to local contexts.

There is still a resistance to test among some KP sub-populations: There are several reasons for this. Prevention-focused KP NGOs rarely provide positive information or campaigns on the benefits of knowing your HIV status, the medical advances that have been made in ART, and living well with HIV. This is partly because they are now generally contracted only to provide outreach for testing and in some cases because technical capacity-building has not kept pace with advances in these areas. Discrimination against KP living with HIV exists within some KP populations, making people fearful to be diagnosed and identified as living with HIV. Some sex workers fear a loss of income and inability to support their children if diagnosed.

Linkage to treatment and onward support for newly-diagnosed KP with HIV is inconsistent: Community testing models vary. Some are directly linked to treatment, care and support, whist others provide ineffective referrals only. There is a close monitoring of testing and of positive yield in many programs, but little focus on the health outcome for the people tested. Data systems often provide little feedback to KP NGOs to assist them to track their success of linkage to care and tailor their programs to improve it.

PLHIV support and case management models are generally under-developed and under-resourced: The focus on testing targets also leaves insufficient resources for onward support of KP with HIV. In some countries, testing-focused NGOs are expected to refer newly-diagnosed KP with HIV immediately to PLHIV support organizations. Some testing NGOs have an allocation for PLHIV case managers but caseloads in many countries are unreasonably high. Some countries are experimenting with employed KP peers within government or NGO clinics to act as service navigators and adherence supporters, but these are often externally funded pilots and rarely a legitimate part of national or provincial health budgets.

Significant elements of service packages are missing, due to policy conflicts or lack of resources: Harm reduction services are the biggest casualty here. Drug policies in many countries focus on arrest, incarceration and forced rehabilitation rather than health. This approach leads to a reduction in the availability or coverage of essential harm reduction services like needle-syringe programs, OST, naloxone and drug treatment. Prohibitions and fluctuations in law and policy in relation to sex between men and to transgender people also threatens outreach services in some countries. Crackdowns on sex worker precincts and drug availability precincts also disperse key populations, eroding trust and making it harder to reach them with services.

Linkage between HIV and TB services is improving in many countries but data are still under-developed in some countries: TB remains a leading cause of death for people with HIV in many countries and although TB testing, prevention or treatment is consistently available in HIV treatment centers in some countries, there are gaps in other countries. HIV testing in TB treatment centers is also inconsistent in many countries.

'Immediate ART start' and 'test and treat' policies are inconsistently implemented: There has been a move towards immediate ART start policies in many countries, but some still lag behind on implementation, charging PLHIV in some cases for 'work-up' tests that lead to loss to follow-up because of economic hardship. Some services are taking immediate start literally, providing the first

dose of ART at community-screening site without allowing time for the person to understand their diagnosis and properly consent to treatment. Some countries provide for viral load (VL) testing at diagnosis, whilst others limit VL to one test per year (with the first test at the end of year 1).

Community empowerment seems to have been a casualty of the increased focus on testing: Many of the KP NGOs consulted in this assessment are finding it increasingly difficult to attract consistent core funding, let alone funding to pursue their goals in relation to advocacy, participation in national planning and evaluation, reduction of stigma and discrimination, legal support or economic empowerment. This has important implications for sustained capacity as funding fluctuations and a focus of funding on the lowest-paid staff members to ensure meeting HIV testing targets makes it difficult for KP NGOs to hire sufficient management staff to ensure quality and to provide any capacity development or career pathways for lesser-experienced staff and volunteers.

Interventions to prevent and mitigate the effects of violence are urgently needed: People from KP almost universally cite violence as major deterrent from accessing services, and yet this element receives the least attention of any outlined in the *Consolidated Guidelines.* Interventions to address chronic violence must be introduced or strengthened. In addition, coordinated responses to acute violence are needed to prevent major service disruptions. Box 5 below provides further resources on acute violence response.

BOX 5: COORDINATED RESPONSES TO ACUTE VIOLENCE

A recent positive development in the area of violence response for KP is the development and release of *When Situations Go from Bad to Worse: Guidance for International and Regional Actors Responding to Acute Violence Against Key Populations* (LINKAGES, 2018). Developed by representatives from key population networks and community-based organizations as well as major international allies, the document "recommends concrete ways to strengthen international and regional stakeholders' actions to protect the human rights of key population members and reduce the effects of acute violence on HIV programming."

The document outlines concrete actions that can be taken by international and regional actors, under each of the following principles:

1. Defer to local communities involved in the response.
2. Commit to implementers' safety by appropriately resourcing their legal and medical needs.
3. Acknowledge and safeguard the unique needs of key populations, including distinction between MSM and TG women.
4. Equitably and transparently align support with the expressed needs of local actors.
5. Ensure that all supported activities avoid victim blaming.
6. Prioritize support for local collectives instead of individual actors.
7. Proactively support the development of mechanisms for local coordination.
8. Preemptively develop mechanisms and norms for international and regional cooperation.
9. Create spaces for continual mutual learning and exchange.

This document, grounded in community experience and expressed needs, should serve as a reference for international and regional partners seeking to support KP during times of acute violence. The full guidance is available at https://www.fhi360.org/sites/default/files/media/documents/resource-linkages-guidance-responding-violence.pdf

RECOMMENDATIONS: IMPLEMENTATION OF SERVICE PACKAGES FOR KEY POPULATIONS

To the attention of	Recommendations
Global Fund, WHO, UNAIDS and partners	I1. Support development and promotion of quality standards for quality, safety and ethical practice for social media outreach to KP. While there is rapidly increasing use of technology for outreach, practice in this area is inconsistent, with some peers posing as contacts for sex in order to arrange meetings with clients. Reporting of contacts also potentially breaches client confidentiality in some cases, where screen-shots are used as verification of contact. A clear set of quality standards needs to be developed, with provisions for protection of both outreach workers and clients. I2. Review guidance on programs and services for people who use drugs to reflect changing drug use patterns. This should include strategies for expanded access for OST for PWUD who still require this intervention and greater attention to the needs of women who use drugs. It should also address emerging (or sometimes long-standing) use of stimulants and non-injecting drug use, with attention to sexual risk behavior associated with these. I3. Develop/strengthen global and regional strategies to increase the level of support for resolving policy conflicts that affect service availability. This is especially true for conflicts between illicit drug policies and harm reduction service availability; legal and policy changes that affect the ability of agencies to provide information and outreach to MSM; policy changes and crack-downs on sex work localities that limit the ability of health services to access sex workers. I4. Support increased access to a full HIV service package in prisons and other closed settings. Global and regional assistance is needed to help countries put in place practical and effective strategies to serve this population. This should include the insistence that compulsory drug detention and rehabilitation centers must be closed, and should be replaced by voluntary, evidence-informed and rights-based health and social services in the community, as already stated and supported by UNODC, WHO and UNAIDS.

National governments, with external technical assistance as needed	I5. Advocate to shore up support for KP programming in countries (or jurisdictions within countries) where KP are being re-criminalized, or where crackdowns are resulting in reduced access to KP. This must be done on a reactive basis, with global partners mobilizing quickly and efficiently to lend assistance when necessary. I6. Support documentation of evidence of positive outcomes from police engagement in supporting HIV prevention needs. While this element is often supported using donor funds, its implementation is inconsistent and the current evidence base is insufficient to shape programming. I7. Develop or strengthen strategies to engage countries in transition planning for the outreach (demand-creation) workforce that runs current KP programming. This includes global and regional assistance to assist countries to strengthen mechanisms for state funding of services delivered by CSOs. I8. Strengthen condom programs, ensuring consistent access to inexpensive or free, high-quality male and female condoms and lubricant. Condom use remains a key pillar of HIV prevention, and persistent stock-outs, poor quality condoms, and lack of lubricant compromise uptake and efficacy; this must change. I9. Assure greater attention to effective linkage to treatment, care and support for newly diagnosed KP living with HIV, in order to maximize the health benefits of HIV testing. Access to HIV testing among KP is increasing significantly, but ambitious testing targets and new outreach models must be paired with linkage to care and the identification of a case management workforce. Responses must strive for improved targeting of testing to reach undiagnosed KP in sufficient numbers and differentiation of ART service models to better meet the needs of KP. A review of outreach and support service models may need to be conducted, to ensure that there are sufficient resources for linkage to treatment for newly diagnosed PLHIV, and case-management models in place to cover at least the first three months following diagnosis I10. Ensure that key populations have access to up-to-date information about HIV and the life-saving benefits of ART and clinical care, as part of prevention programming. Reduced availability of donor funds and a sharper focus on Test and Treat has meant that broad HIV information and prevention programs have been wound back in many countries. This is also relevant in relation to programs among school-age young people. There was an absence of up-to-date plain language HIV IEC materials in many countries and few resources to update them or conduct even targeting information campaigns. KP NGOs need to be resourced

	to support health-seeking behaviors, particularly among young KP, to address stigma and discrimination and to develop and disseminate messages and information about living positively with HIV. I11. Address issues of age of consent for services where they are preventing young KP from accessing services. Countries may need assistance to change consent laws, introduce policies that allow NGOs to engage with and support young KP and allow them access to services I12. Devote renewed attention to the drivers of HIV risk and transmission. Throughout this assessment, KP NGOs reported that they have fewer resources to work on the drivers of HIV risk and transmission – alcohol and drug use, gender-based violence, stigma and discrimination, mental health, STI and reproductive health. There were widespread gaps in service provision by governments in these areas also. Attention and resources need to be focused on filling these gaps. I13. Assess the efficacy of community-based HIV testing and self-testing models currently in use (as relevant), and/or develop national-level guidance for introducing or strengthening these models to expand access and improve testing quality. I14. Assure that PEP is available to KP victims and survivors of sexual assault. PEP for sexual assault and improved access to sexual assault services for KP need to be widely available, particularly for female, transgender and male sex workers as a priority.
Global and regional KP networks, in collaboration with national-level KP NGOs	I15. Assist KP NGOs to secure resources to pursue broad health goals for their constituents, beyond a narrow HIV agenda. Issues include reduction of stigma and discrimination, responses to KP-related violence, GBV and other issues that increase service access obstacles for people from KP.

PART IV: MONITORING SYSTEMS

The process of monitoring the implementation of packages of services against their design is multi-faceted. As part of this assessment process there was a requirement to rate the unique identifier code (UIC) systems used to monitor KP service package implementation. The results of this process (Table 5) show that 90% of in-country assessments revealed some form of unique identification code (UIC) system. The list of all 32 countries with notes on their UIC systems appears in Annex 4 as Table A4.

*Table 5. Unique Identifier Use Scores by Country Assessed**

* For countries that only received a desk review, there was not enough information available to adequately and reliably assess the existence and use of a UIC. Therefore, details are not included here.

0: No data/evidence of UIC found;
1: Monitoring contacts, does not allow for the de-duplicated reporting;
2: Partially using UIC, which disallows de-duplicated reporting. This includes scenarios where UIC are used in some regions of the country or different UIC are used in the country but not harmonized;
3: Nationally using UIC, which allows de-duplicated reporting. This includes the scenario where different UIC are used but harmonized.

Score	AP	ESA	EECA	LAC	MENA	WCA
0					Sudan	
1		Madagascar				Mali
2	Afghanistan	Angola Kenya Malawi South Africa	Armenia Belarus Kyrgyz Republic	Dom. Republic Haiti Guatemala Guyana Peru	Tunisia	Benin Cameroon Sierra Leone Togo
3	Indonesia Nepal Pakistan Papua New Guinea Philippines		Georgia Kosovo Moldova Ukraine Uzbekistan		Morocco	

It should be noted that UIC systems in desk review-only countries could not be assessed due to the general lack of data held in the Global Fund on these systems. This suggests the need either for different monitoring procedures for Global Fund grants with KP components, or the need for visits to countries to assess systems used for monitoring KP programs.

NATIONAL UIC

The use of a national UIC[26] is of great importance as it is one of the cornerstones of coverage calculations. Just as the PSE is the important denominator, the UIC leads to the construction of

[26] UIC here refers to a system, usually developed at the national or programmatic level, to provide an anonymous way of tracking service use by individuals. It usually does not incorporate national identification or health insurance or other formal numbers, and is usually either alphanumeric (comprising several characters) or

national coverage numerators. Countries can have excellent programs but, without accurate PSE and a way to accurately report de-duplicated client numbers, no statements about coverage of the programs or individual program elements can be made with any certainty. It should be noted that the UIC also allows programs to distinguish between unique individuals (clients) and visits (occasions of service) and between multiple clients accessing services from several service providers and one individual doing so. This is a confusion that has plagued KP programs for many years (Sharma et al 2008), and strong UIC systems provide the answer.

While it is excellent to see that 11 of the 32 countries assessed now have a UIC system that allows for de-duplication of results and hence can provide accurate numbers of individual clients receiving various services, it is a concern that the other 21 countries do not have this ability. Some of the countries without a national UIC include those with excellent KP programs. Kenya, for example, has some of the best programs examined in this assessment and has carried out remarkable data analysis to guide programming. One study in Kenya enabled the National AIDS and STI Control Programme (NASCOP) to discover significant gaps in enrolment in care and in ART coverage among young FSW compared to older FSW and take steps to correct this imbalance. Yet the authors of the national Kenya report cautioned against using any published coverage data for KP in the country due to the multiplicity of services, UIC and other ways of recording data. For example, when assessors visited two PWID agencies in Mombasa, Kenya for this service package assessment and learned that they used different UIC codes, the question was asked as to how each agency could be sure it was not double-counting a client from the other agency. The reviewers were told "we know them all," which for agencies seeing over 1,000 clients, seems an inefficient and ineffective method to ensure accurate records. This problem was also mentioned in Malawi, where participants in focus groups reported high mobility among their peers and a tendency to rove between different service providers (both between Global Fund implementers and LINKAGES, as well as between different Global Fund implementers).

DATA COLLECTION

Even for those countries working with a national UIC – and especially in those countries without a UIC – the most common way to collect data on clients was with a pen and a paper form. The forms varied slightly from country to country, depending on the package and the elements offered by specific SR, but overall, the forms were very similar (with the exception of SW data collecting in South Africa: see below). Data is then entered into Excel databases, often designed separately by each SR. Data validation is very onerous and at some SR, the full workload of a Monitoring and Evaluation (M&E) Officer is simply checking errors in either the forms or the data entry. The process of data collection, entry and reporting was routinely discussed as a massive job that provided little assistance to clients and was considered by many SR staff as a significant waste of time and resources.

Fortunately, there are also examples of efficient methods of collecting and reporting data. Alliance for Public Health in Ukraine uses an open access software (SyrEx) for monitoring and recording information on clients reached and services provided in community-based HIV prevention programs. It allows project implementation partners to uniquely register project clients with an agreed-upon UIC, to record commodities and services provided, as well as other key deliverables such as trainings.

biometric (delinked fingerprints, iris scans). A national UIC is a UIC system used across the country and across all implementers of at least prevention services.

The code, developed with the participation of all HIV service partner organizations, is based on the unique personal data of a client and includes eight symbols: the first letter of the client's surname; the first letter of the full name of the client's maiden surname; the first letter of the first name of the client's father; two digits from the client's day of birth (01; 19 etc.); the last two digits from the client's year of birth, and, the client's gender.

The tool also allows for the generation of reports by set of criteria, collection and aggregation of data from multiple sites. It also calculates coverage of a vulnerable sub-group with essential services, including the possibility to disaggregate by sex and age. Several other countries in the EECA region also use SyrEx for monitoring its KP prevention activities. SyrEx is generally used from handheld devices like mobile phones with data entered into them by outreach workers, removing the need for personal oversight of data entry and searching for data errors (which is done by the system). Cloud-based versions of the software are under development.

One exception to the usual method of data collection is the very long forms used by SR working with Networking HIV and AIDS Community of South Africa (NACOSA) in South Africa. These forms ask a series of questions about human rights abuses to each new client. When it was suggested by the assessors that the form was perhaps not efficient – resulting in acquiring little data from an interview process that can take more than 30 minutes – outreach workers, clients, SR and PR staff all disagreed. The forms assist the SR and PR to build up a picture of human rights abuses of SW across the country. The outreach workers find that the interview helps to build rapport with the clients and the clients (in focus groups) stated they did not mind the time taken. This approach is unlikely to work with all KP – for example, PWID wanting needles and syringes may not want to spend so much time on such a task – but may be interesting for consideration by other NGOs who experience difficulty engaging with KP.

A major emerging issue in monitoring prevention activities relates to the recent increase in the use of e-outreach, the use of mobile phone applications, websites, social media and other forms of electronic communication as outreach. As noted earlier, there is a need for global guidelines on effective, ethical use of e-outreach methods, and new methods will need to be developed to monitor these prevention activities. The current UIC systems – whether alphanumeric or biometric – are unlikely to be useful for at least the initial electronic steps in this work, but may still provide useful data if communication with KP is converted into visits to services.

DATA SECURITY

A surprising and concerning finding from this review was that many countries continue to record the full names and addresses of KP at the service delivery level – for services provided by both NGOs and governmental agencies. This occurred even along-side a nationally used UIC, which is particularly remarkable because the point of the UIC is to allow the anonymous monitoring of services. An effective UIC should not record any identifying information, especially for individuals whose participation in services implies criminal behavior. In cases where UIC are used, the clients of the service are not put at risk if police or others (such as religious vigilantes) gain access to service delivery records. In most countries, a UIC which guarantees anonymity cannot be used to access most medical services – for which a national identification number or medical insurance number may be required – but a UIC should be sufficient for at least all non-medical services such as prevention, community testing and care.

In many countries, the data gathered – even for criminalized populations – included name, address, national identification number, telephone number and sometimes other identifying information. In others, the UIC was designed in such a way that it would be simple for police or other authorities to identify service clients. For example, the UIC may include the first 3 letters of the first and last names and the full date of birth.

More problematic is the way in which these data are generally stored. Mostly, the data are collected by handwritten notes, which are either entered as separate sheets into binders or entered into a book (often called a registration book). Reviewers carrying out country visits are often told that these documents are kept under lock and key yet, in many SR offices, the registration book lay open at the reception counter, able to be read by anyone standing at the counter. At one SR, the locked cabinet in which these records are kept was a timber veneer cupboard with glass panels that would not have withstood any serious attempt to break in. Good practice is applied by some SR, involving sealed envelopes for completed forms in the field, and data which is locked away with access only by approved monitoring and evaluation staff. Due to a requirement by authorities that clients testing for HIV sign consent forms (which include names and addresses), Anova in South Africa uses this secure system.

Perceived problems with alphanumeric UIC – such as sex workers and other criminalized populations stating false names and birth years, TG using a range of names, PWID preferring to use nicknames – have led to consideration of the use of biometrics in some regions. In this assessment, there was no evidence found of successful national implementation of biometric identification systems. Where pilots exist, there appear to be mixed results, with some implementers concerned about the quality of existing fingerprint or iris detection software; the inability of such software to work effectively on cellphones; the need for uninterrupted electricity and/or Internet; and, opposition from some key population representatives and networks.

Among the SR visited, only Nai Zindagi, the PR for the provision of services for PWID in Pakistan and its sub-recipients (SR), use portable, digital devices with fingerprint biometrics to record real time data during outreach, making it immediately accessible by both the PR and implementers. Handheld devices using fingerprint biometrics are being phased in at all sites, and paper systems still in use in a few sites are being closed down when the data they contain have been collated by the PR. There are no longer any alphanumeric unique identifiers used, as this form of unique identifier has been replaced by the biometric identifier.

Data Analysis

It was heartening to find that some countries have developed ways to determine whether a client has received a defined package of services. For many years, there has been confusion at the implementer level between reach (all clients met) and coverage (all clients receiving a specific set of services). For example, in Kosovo, PWID, MSM and FSW are considered ‘reached’ each time they receive their defined package of services, and they are considered ‘covered’ if they receive their defined package of services four times over a six-month period, with the exception of HTC, which is once every six months. Further, both the national MSM and PWID NGOs are able to record when individuals receive individual services (one or two services within the package) and are able to see which clients are receiving what services over the reporting period with the use of their UIC system.

In Afghanistan, with the exception of a few elements, it is possible to determine which, and how many, elements of the service package are being delivered to members of the three identified key populations: MSM, PWID and prisoners. Reach, as it is reported, is only minimally defined as three services for MSM and PWID, and two services for prisoners in a reporting period. For PWID, reach is currently defined as the provision of needles and syringes, condoms, and HIV and STI information. For MSM, reach is defined as the provision of condoms, HIV and STI information, and screening or management of STI. For prisoners, reach is defined as the provision of condoms, and HIV and STI information. There are similar examples in each region, only a minority of countries can accurately state coverage with a defined package of services. For those countries without a UIC, it is virtually impossible to know how much double-counting of clients and visits is occurring. For those with UIC but without electronic records, it is time-consuming to try to assess whether a person with a single UIC received all the services in the defined package. Even in countries with both UIC and electronic records, reporting systems are sometimes not set up to capture the percentage of all clients that received the defined package of services within a specified timeframe.

The major gap in every country, as it is worldwide, is between prevention and treatment databases. For almost all countries assessed, there are no disaggregated data for KP on ART, nor retention statistics or viral load suppression results, by key population. This makes the development of treatment cascades for each KP very difficult, though some countries have found methods to estimate cascades, using surveys of PLHIV about routes of transmission, combined with UIC data on prevention and testing. Georgia appears to be close to resolving the problem of combining UIC and patient databases, as described below in Box 6.

BOX 6: GEORGIA'S ABILITY TO INTEGRATE UIC AND ART DATA

Many countries are moving towards the development of Cascades of Testing and Care for key populations with HIV, but a key stumbling block has been the ability to disaggregate treatment data by key population. A unique identification code (UIC) system, used appropriately can at least tell us how many individuals from a key population are being reached by services and are being tested. In some cases, such a system can also provide data on the number of positive test results. Those who test HIV-positive usually then enter a government-operated medical database designed to keep their results, treatment, effects of treatments and monitoring results confidential.

In Georgia, the PR for the GF HIV grant, the National Center for Disease Control (NCDC), is working on this issue. The country's existing system of registration of prevention services for key populations uses a unified reporting form for all sub-recipients of the Global Fund grant and a universal UIC for all key populations. Originally, prevention programs used a 7-digit UIC, but following the integration with the governmental information system, a 15-digit code is used (see Figure CS1). Use of the 15-digit code is time consuming for paper-based reporting, but there are plans to provide outreach workers with tablets this year.

Current data collection tools register all information about services provided to individuals based on the 15-digit codes. The data collection form enables registration of every component of the service received at a given time. This information is entered monthly into Excel by sub-recipients and sent to the principal recipient (PR). Available tools allow the disaggregation of HIV testing data for each key population. Tools also allow coverage calculations and provide data disaggregated by gender and age.

Regular procedures are carried out to clean the database from duplicates and carry out analysis over time, selecting various criteria.

Figure CS1. Composition of the UIC

The unique 7 digit code of the client						
	The first letter of the name	The first letter of the Last name	The first letter of the Mother's name	The first letter of the Father's name	The date of birth (The last 2 number)	The number of sex determination (1 -Male; 2 - Female.)

The unique 15 digit code of the client							
	The first letter of the name	The number of letters in a last name) (ex."08", 12)	The first 2 letters of the mother's name	The first 2 letters of the Father's name	The date of birth (Day, Month, Year (The last 2 number)	The first letter of the place of birth)	The number of sex determination (1 -Male; 2 - Female.)

A new prevention database, which was 80% complete during the assessment visit in November 2017, will enable real time data entry, improve data quality and reduce reporting burden for data managers at the service delivery sites. It will also provide linkages to the ART, HCV, TB and STI databases. This will be done by linking UIC data with medical data for each HIV-positive person from key populations. When medical data (related to HIV treatment, monitoring or other medical issues) are downloaded to the new database, the name and address of the individual patient is automatically stripped from the data. Once fully functional, this database, with its links to medical data, should allow the construction of complete cascades for key populations including viral load suppression. It will also – by linking UIC data with HIV medical data – allow planners to see how HIV-positive members of key populations are accessing KP programs. This can be extremely useful for ensuring that HIV-positive members of KP are getting the services they need.

The Georgian database – if it is completed as planned – is a significant breakthrough in enabling countries to determine the access KP have to prevention, testing, treatment and viral load suppression. It should be studied by all countries to determine how such a system can be replicated.

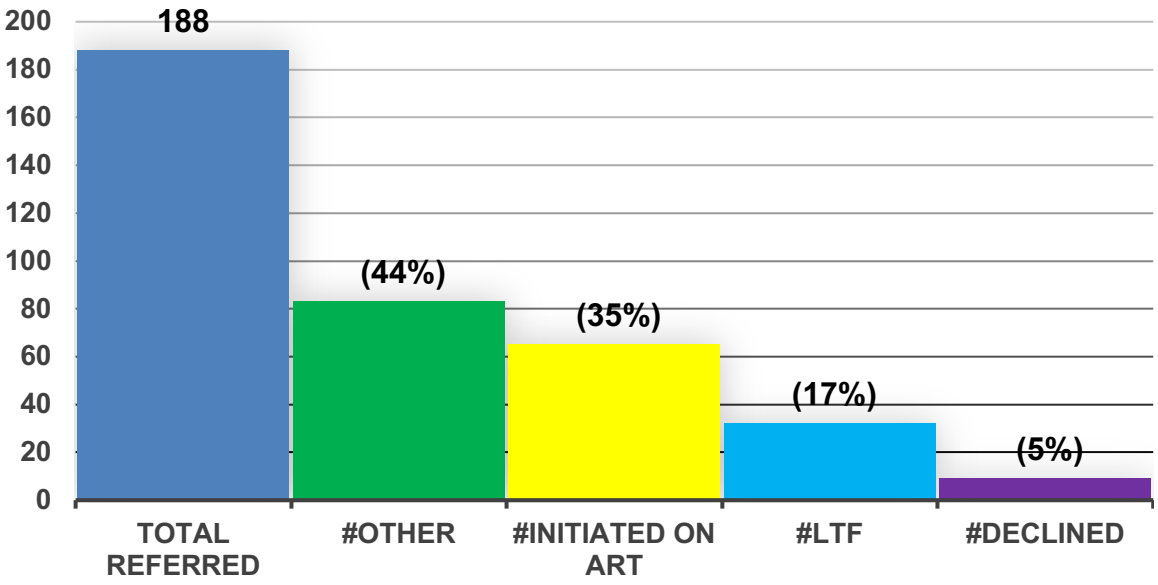
The Philippines also presents one of the few examples of a consistent use of UIC across prevention, treatment and care, allowing the program to benefit from outcome data for KP across the continuum. Cascade data is made available to regions and provinces (where the decisions about health spending are being made) to allow for an examination of the progress being made in diagnosing un-diagnosed KP living with HIV and linking them to long-term care. There are dynamic Service Delivery Networks in many jurisdictions that are beginning to use this data for planning and to address service gaps and obstacles to access.

In Haiti, a standardized UIC is used by most implementing agencies delivering HIV prevention and testing services but is not used to track KP through the clinical cascade. A new UIC is given to patients when they present to clinic services for HIV treatment. However, by following clients through peer navigators, the LINKAGES project has been able to generate data on uptake and retention in ART

services. The PEPFAR Country Operating Plan 2016 states that the PEPFAR team is moving forward with the implementation of a UIC using a biometric system.

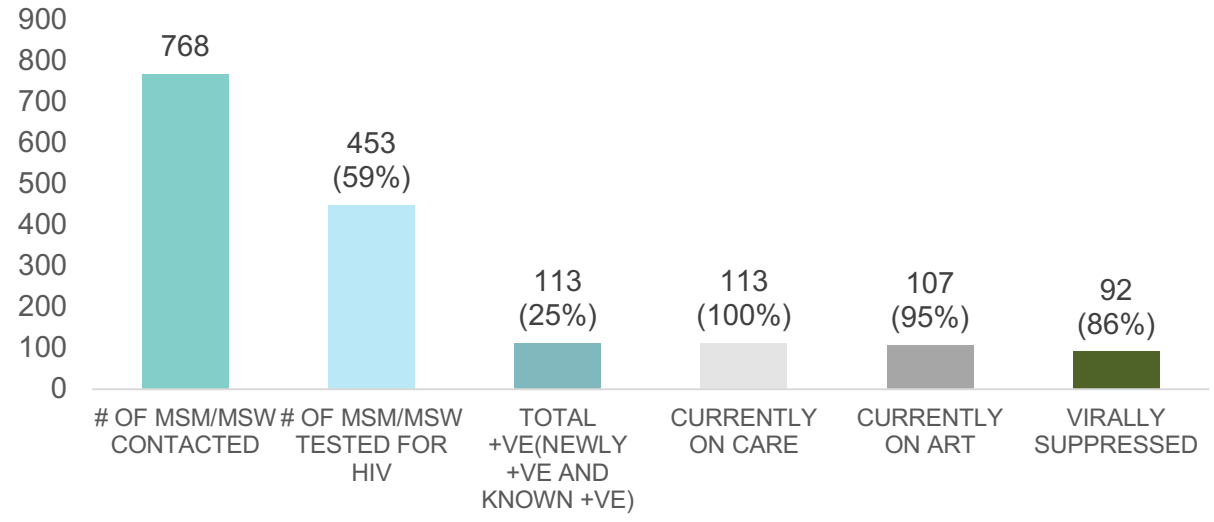
In some countries, there have been attempts to generate Cascades of Treatment and Care for key populations either by large implementers such as PRs, or by external groups such as LINKAGES. Examples of this include Figures 11 and 12. In Figure 11, the PR for MSM work in South Africa, Right to Care, provides a linkage to care cascade that shows that only 35% of HIV positive referrals are initiated on ART. These figures are produced by using the UIC and ART program data.

Figure 11. Right To Care (PR) REFERRAL OUTCOMES example (Oct to Dec 2017)



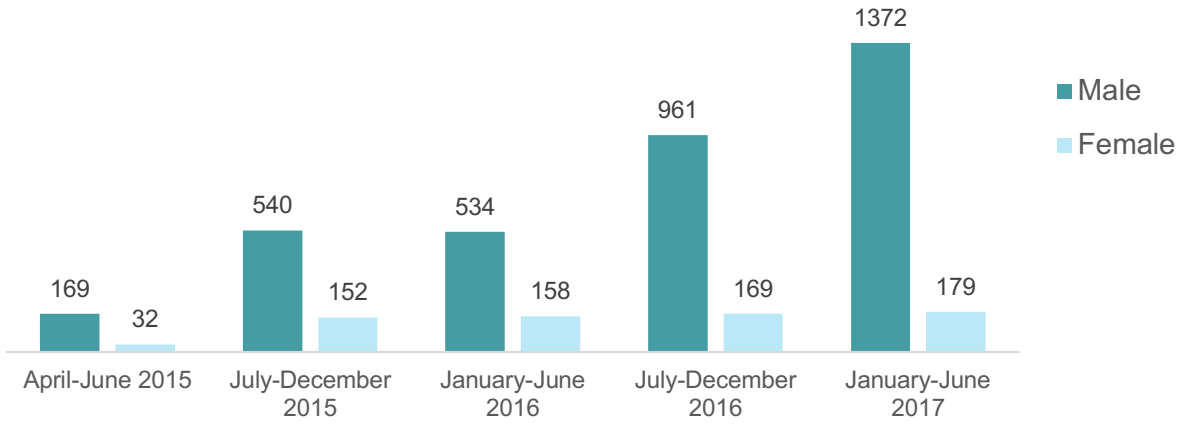
In very rare cases, this type of data analysis was carried out at the SR level. For example, one of the Global Fund implementers for MSM/MSW in Mombasa (HAPA Kenya) is tracking outcomes for its clients as shown in Figure 12. This monitoring indicates 95% linkage to ART for those diagnosed positive and 86% viral load suppression among MSM/MSW on ART.

Figure 12. HAPA Kenya Treatment Cascade (# of MSM/MSW) (as of December 2017)



Also in Kenya, Reach Out Trust in Mombasa records (publicly) its success in reaching women who inject drugs (Figure 13).

Figure 13. Sex-Disaggregated Outreach Data Analysis by Reach Out Trust



**As displayed on the wall of the drop-in center and captured during photographic documentation during site visit.*

An important innovation found in this review is the *Orbit* database in South Africa, a cloud-based data capture space into which SW SR enter data from outreach forms, HCT, referrals and meeting participation, as described in Box 7, below.

BOX 7: NACOSA DATA SYSTEM FOR PR AND SR USE

While most countries have a system whereby data is collated at the national level - often as part of the reporting process to GF by PR – few countries have worked on the issues of data use for programming by PR and SR.

NACOSA (the GF PR in South Africa that works with sex work SR) supports the active use of data in planning. By hosting quarterly SR meetings, which include a half-day on data review - showing graphs and data drawn from *Orbit*) – SR are encouraged to examine both their own coverage and other data and that of their colleagues to determine what changes in programming might achieve better results. Mini-excel training and data-related capacity building are also provided to SR. NACOSA managers told the consultants: "There has been a shift in SR. They are now more interested in data and results."

Effective, consistent centralized management of data is being supported by NACOSA hosting centralized M&E data. Data are uploaded directly by SR to *Orbit*, and the SR may extract basic data for their own information and planning from the database. "Orbit enables SR to understand their data, and gets them to work with data, and use it to improve programming methods", said the NACOSA managers. NACOSA will soon also offer *ZENESIS*, an analytics platform, which will enable analysis of data and sharing for strategy and decision-making.

NACOSA sought and received funding from GF and other sources for the development of both *Orbit* and *ZENISIS*, but the key factor in developing and operating the data system appears to be a strong belief on the part of NACOSA management that SR are in the best position to use data for decision-making, if given the skills, relevant data and time to do so. This approach should be encouraged both regionally and globally.

Another innovation in Malawi is a forum for bringing KP implementation information together, led by the University of North Carolina. This research group has come up with an online platform - which they are piloting – for implementers to discuss service provision, networking and other issues. Implementers can post problems and discuss solutions, among other topics. The creation of this platform is in response to frustrations with surveys. According to key informants, people said they are tired of surveys since the surveys are not capturing the real issues. Real time discussion in online forums, as well as in the KP Technical Working Group, is aimed at creating a more realistic picture of KP implementation in the country.

Unfortunately, the above examples were the exception, rather than the rule. In most countries, little analysis was carried out on the data collected. For example, an extraordinary amount of data is collected at the SSR, SR, and PR levels in Indonesia but there was no evidence of the data being used to track patterns of service use by KP or to analyze access to services by mobile KP. There also does not seem to be evidence that good public health practice is driving the data collection; in fact, in many services, data collection requirements from donors seem to be driving the practice. Sub-Recipient and SSR organizations serving key populations are fatigued by the data collection burden they face, with, as they expressed it to assessors, little benefit in return.

Sex disaggregation is carried out at PWID services, but little is done to disaggregate sex and gender information for male, female and TG sex workers in most countries, at least at the national level. Data on adolescent KP are generally not recorded and, in some countries are actively discouraged. In one country, MSM- and SW-led organizations report that they serve adolescent members of KP but believed their funding would be threatened if anyone knew this, so no records are kept of this service provision.

PSE, IBBS and Coverage

A key issue found in the examination of monitoring systems is the confusion caused by comparisons of IBBS and other survey data with programmatic data and the national PSE for KP. As noted in Part 1 of Findings, there are numerous questions about the ways that PSE are calculated. In the Design section, it was mentioned that many KP service packages do not include a clear definition of the population for whom the package is designed and, similarly, this affects PSE calculations. There is likely to be a significant difference in numbers between people who have ever injected a drug and those who have injected in the past 12 months. Similarly, men who have ever had sex with another man and those who do so regularly are likely to be very different numbers.

These issues become more complex when the two major methods of calculating coverage are added to the mix. Reports to UNAIDS on progress towards global targets (now known as the Global AIDS Monitoring, or GAM report) often include a mixture of programmatic and survey data. For programmatic data, it is often not clear whether the coverage reported is the percentage of the program's target reached or the percentage of the national PSE. As household surveys rarely provide sufficient data on sexual behavior or illicit drug use, most countries use Integrated Bio-Behavioral Surveillance (IBBS) to collect data from KP. In many of the countries reviewed, coverage figures are found from both programmatic and IBBS sources. These figures are very often different, sometimes remarkably so: 20% in IBBS and 115% in programmatic figures, for instance.

In Table A5 in Annex 5, an attempt has been made to provide coverage figures that assessors judged to be most reliable, from what were often several available. In the absence of time and resources to thoroughly investigate the methods used to calculate PSE, national programmatic coverage data and IBBS data, this assessment employed a logical process whereby if programmatic data showed that 20% of a KP had been reached with condom distribution, it was assumed unlikely that 80% of the estimated population of that KP had been covered with a defined package of services (as stated in the GAM). As the references show in Table 5, the selected coverage data ranges extremely widely and the sources range from programmatic data to IBBS studies (often from three or more years earlier) to unknown sources (and thus referred to in the table's footnotes as GARPR or GAM), to specific research studies.

What is important to note in the table is that APMG assessors collected program data in several countries visited, compared these to nationally accepted PSE and found coverage rates above 100%. There are two possible explanations for this (both of which can be true, simultaneously): in some of these countries, PSE may be set too low; and, in others, double-counting of clients may lead to erroneous program data. It is therefore difficult to trust the coverage data that is often quoted in GAM reports.

Other Issues

There is a significant difference between monitoring HIV programs for prisoners, compared to all other KP. Services for prisoners – where they exist – are overwhelmingly provided by government agencies with only a few countries allowing NGOs to enter prisons to provide care services. In theory, it should be simpler to monitor services for prisoners as their full details are known to most service providers and simple record keeping could show which services were received when. In practice, data collection seems to be haphazard and uncoordinated. In the few places where HIV interventions exist, there are no available data about prisoners accessing the services. Data on prisoners related to HIV testing, ART and viral load suppression are also curiously missing in many countries.

At first glance, there would seem little point in using a national UIC to include prisoner services. However, the great majority of prisoners in most countries serve sentences of less than two years so it is likely that they may be clients of HIV prevention or care programs, enter prison, then exit to return to community programs. For this reason, it would be useful to extend the UIC to at least those prisoners who state that they were clients of community services prior to entering prisons. Even without a UIC, data aggregation and disaggregation should be much easier for prisoners than for other KP. Cascades of Treatment and Care should be possible, at least for prisoners as a full population, though it may continue to be difficult for sub-populations such as MSM or PWID in prison. Lack of political will seems to be a greater factor than lack of available data.

There are also examples of problems with coding in some countries. Blood samples collected from narcological (drug treatment) clinics in Uzbekistan are coded as 'drug users', the HIV testing results of which contribute to the national indicator of 'HIV incidence rates among PWID'. However, narcology clinics collect samples not only from PWID, but from all other patients (homeless people and individuals using alcohol and other drugs) who receive narcological services, resulting in misleading statistics on HIV among PWID. Also in Uzbekistan, people providing sexual services for consideration (PPSSC, which is the officially used terminology indicating engagement in sex work) includes all people

who anonymously apply for HIV testing through STI services, as well as those FSW who have been tested for HIV, again confusing the real HIV testing figures for SW.

In Guyana, a UIC is universally implemented to monitor the uptake of prevention and HIV testing services among community organizations. One element of the UIC is gender – 'M' for male and 'F' for female. The current UIC thus forces transgender people to nominate themselves in the code as 'M' or 'F'. Transgender (TG) focus group participants reported finding this disturbing, and it would seem sensitive and sensible to allow transgender people to code a "T" for transgender. This would allow for the tracking of service use by transgender people. Such a relatively simple change to UIC should be considered by all countries.

Virtually no countries assessed have clear indicators to demonstrate that critical enabler activities had been effective. UNAIDS (2018) has developed an interim set of indicators that measure the drivers, facilitators, manifestations and outcomes of HIV-related stigma and discrimination. The Global Fund's work on scaling up responses to reduce human rights barriers to HIV services should also result in a set of indicators that can be used to measure progress in this area.

Analysis: Do we have enough information to determine how well packages are implemented?

As with the other sections of this report, the picture is mixed. On the one hand, there are many more countries formulating implementing UIC in at least some KP programming than was the case a decade ago, but there is still much to be done to before it can be stated that the majority of the assessed countries have sufficient data to determine how the KP service packages are being implemented.

Accuracy of programmatic coverage data continues to be a concern: With only a minority of assessed countries implementing a national UIC capable of de-duplicating client records, the validity of coverage data is still questionable for many programs in many countries. Even where a national UIC is in use, there may not be data aggregation processes in place to ensure that all data from all programs are brought together and de-duplicated to provide accurate coverage data. Similarly, a national UIC may be in place for one or more KP but the structure of the UIC may be different for each KP This prevents analysis of service use by KP who may be for example, both MSM and PWID, or TG and SW. The PSE issues outlined earlier mean that, even where numerator data is increasingly accurate, problems may remain with the denominator.

Coverage of a defined package of services is difficult and rarely recorded well: Looking back to the Design section of this report, the full list of products and services that should be made available to each KP member is lengthy and often includes medical services such as ART. A UIC alone cannot usually capture the full set of items on this list, so most countries nominate a subset of HIV prevention activities plus HTC as the 'defined package of services' for that KP. For the GAM, UNAIDS advises countries to collect data on KP 'who received at least two HIV prevention interventions in the past three months' (UNAIDS 2017b: Indicator 3.7) to provide data for the indicator on 'coverage of HIV prevention programmes: percentage of people in a key population reporting having received a combined set of HIV prevention interventions'. These are inadequate indicators to capture the data needed to be able to confidently state that KP are covered with a defined package of services.

Data collection and data entry are highly inefficient in most countries: The use of paper and pen to collect data which then needs to be entered into computer programs - mostly Excel-based and often designed by the SR – is very costly in terms of time, which could be more effectively spent on providing

more services or increasing the reach of programs. Automation of various types, including software such as SyrEx, biometric systems and the use of smartphones or other handheld devices can reduce the time needed for data entry and can improve accuracy and quality.

Security of data remains a major concern: The recording of names and addresses of KP in a wide range of country contexts creates major risks for KP. The poor security observed for storing these data exacerbates the risks. In countries like South Africa where consent forms (with names and addresses) are required, a process such as that used by Anova can help to overcome these issues.

Data analysis is generally only carried out at the PR level, or not at all: It was clearly stated in most countries that data flows from SR to PR to the Global Fund. Any analysis that occurs is generally done at the PR level to explain problems or changes to the Global Fund. In most countries, there is little evidence of data analysis being used by CCMs to drive programmatic improvement. There are several exceptions, as noted above, but in general the data are used only for reporting against funding, rather than being analyzed. Even in countries with a single national UIC for all KP (or all except prisoners), there is little evidence of analyzing data to track service use patterns. This finding is supported by the recent report on Global Fund Data Collection, Analysis and Use in Cameroon, Kenya, Malawi, Rwanda and Zambia (Aidspan, 2018), which found that there was general compliance in data collection and use for Global Fund reporting, with data flowing from implementers to the Global Fund and back through PR reporting every six months, but the use of data in many cases stopped there. The study emphasized the need for more data ownership especially at lower levels of governance: of central importance is improving the quality of data, and its subsequent use and analysis, as a pillar in strengthening country health systems.

In addition, there are only rare examples of quality monitoring or of communicating and discussing data analysis with communities of KP. These processes are combined in some service delivery settings, where monthly or quarterly meetings are held of clients to discuss any problems with goods and services provided, and to share results of the program's work, asking for KP suggestions for improved service delivery. Such processes, implemented regularly, would be a key first step in the feedback loops described in the Design section.

Data disaggregation remains rare: Most data on sex workers refer to female sex workers without specifying that this is the case. In some countries, male and TG sex worker data is combined with female SW data, leading to an unrealistic picture especially of HIV prevalence. Behavior, risks and HIV prevalence among male, female and transgender SW can be very different so SW PSE, prevalence and coverage statistics need to be derived for each of male, female and transgender SW. A similar lack of disaggregation occurs for age disaggregation and sex and gender of PWID, and age disaggregation for MSM and TG.

Prisoner data remains very poor: As noted in the other sections, the low emphasis on prisoners as a KP is reflected in the lack of monitoring data in most countries.

Some of the above issues have been taken up by the UNAIDS Reference Group on Estimates, Modelling and Projections (UNAIDS, 2018) which has identified a number of priorities for innovation, including:

1. Make existing data about key populations more robust and accessible for HIV policy and planning purposes. Substantial efforts have improved the collection, curation and synthesis of epidemiologic data about key populations. A coordinated effort to make these data and tools more accessible will support their more consistent and effective use in HIV strategic information and policy.
2. Develop new tools that strengthen ownership of data on key populations within the national HIV estimates process, alongside core epidemiological indicators for the general population. Country-owned HIV estimates, generated by national HIV programmes using the Spectrum model, are central to the HIV response. These estimates also are a key component of countries' regular reporting to UNAIDS on progress towards global targets. New modelling tools that facilitate the local creation of key population-focused strategic information through this same process will facilitate improved local understanding, ownership and effective use of these data to support an evidence-informed and human rights-affirming HIV policy and programmatic response.

This report reaffirms those priorities, based on the findings in the 65 countries assessed.

RECOMMENDATIONS: MONITORING OF SERVICE PACKAGES FOR KEY POPULATIONS

To the attention of	Recommendation
GF and other donors to KP programs	M1. Ensure that monitoring systems developed for funded programs provide sufficient data for GF Country Teams (CT) and other donor program managers to be able to determine realistic coverage levels of KP service packages. M2. Develop guidance for countries to provide meaningful data for desk review by CT and other donor program managers, including: • Detailed explanations from grantees of how and when PSE/mapping are carried out, including methods used and verification processes carried out • Definitions of KP, KP service packages and the "defined package of services" (including references in national documents) • Methods used by PRs (and SR through PRs) to gather data on service delivery, ensure de-duplication and calculate coverage against the national PSE. (Coverage against project indicators should be maintained but should be understood by all parties not to be a replacement for national coverage data.) • Methods used by PRs to ensure project data is fed into national data systems M3. Encourage countries to learn from the examples highlighted in Case Studies from Georgia (on combining UIC and ART databases) and from NACOSA in South Africa on assisting SR to analyze and discuss their data. M4. Develop standard, short lists of indicators to measure progress to reduce human rights barriers to HIV services (from Global Fund's current intensive Human Rights efforts).
UNAIDS and partners	M5. Re-examine GAM reporting requirements on KP service packages to determine whether countries can begin to report on a defined package of services, as outlined in this report. M6. Widely disseminate the results of work to develop indicators that measure the drivers, facilitators, manifestations and outcomes of HIV-related stigma and discrimination; and the work by the UNAIDS Reference Group on Estimates, Modelling and Projections to develop new tools that strengthen ownership of data on key populations within the national HIV estimates process.

	M7. Advocacy for greater government attention to the funding, provision and monitoring of service packages for prisoners globally.
Governments and/or PRs implementing and reporting on KP service packages	M8. Follow established guidelines to develop population size estimations (UNAIDS 2010), together with national consensus processes involving substantial representation from the key populations concerned (not merely one or two key population representatives on a 20-member working group). From these processes, more accurate, agreed-upon PSE should be derived. M9. Ensure that IBBS studies are carried out to an appropriate level of quality to provide reliable data that can be used for decision-making (for example by following the guidelines in Global HIV Strategic Information Working Group Bio-behavioural Survey Guidelines for Populations at Risk of HIV, 2017). M10. Except in specific circumstances (outlined in Conclusions), all countries should continue to progress towards a single unique identification code for all key populations and a single database, preferably accessible online for both uploading data and generating reports. The system of taking down client names and addresses (especially in paper registers but also electronically) should cease. The streamlining of data entry through the use of Syrex or similar products is highly recommended. M11. Ensure that data collected by donor-funded programs, including by SR and PR of the Global Fund and USG-funded interventions, is fed into national-level data collection systems. This requires standardization of some of the elements of the packages and of some key indicators. M12. Examine the examples highlighted in case studies from Georgia (on combining UIC and ART databases) and from NACOSA in South Africa on assisting SR to analyze and discuss their data to determine whether these would be useful. All agencies should be encouraged to analyze and use the data collected to drive decision-making. Capacity building will be needed for some agencies to help staff see the value in not merely collecting but analyzing service data and using this information as the basis for suggesting changes to services. M13. Enhance quality monitoring and program improvement through regular meetings with clients to discuss problems with goods and services provided, and to share results of the program's work, asking for KP suggestions for improved service delivery. Feedback loops should be extended throughout the reporting system so that quality problems are quickly reported to the level at which action can be taken to remedy the situation.

M14. Ensure monitoring processes are differentiated, from PSE to program monitoring to improve the usefulness of data collected for programming. This should include mapping of KP hotspots, and disaggregation of PSE and coverage data of PWID, MSM, SW and TG into specific sub-populations, including:

- SW: by M/F/T and aged under or over 18
- MSM: by aged under or over 18
- PWID: by M/F/T and aged under or over 18
- TG: by TG women and TG men.

M15. Consider the role of national ID systems as a potential replacement for unique identification codes for some KP in some countries.

PART V: FINANCING

Financing of the delivery of KP service packages was examined where possible during the country visits (but not in the countries which only received desk reviews). Data on financing were sparse and general, with little breakdown on the costs of various activities. Most prevention programs that focus on key populations globally rely substantially on donor funding. In many of the assessed countries, the only source of funding for prevention work with KP was the Global Fund and in some cases the US or other donor governments.

Some typical results are as follows:

- For the period of January 2013 – December 2017, a total of US$13,467,392 was budgeted for the Guyana's HIV response. In 2015, 1.2% and 2.2% of the country's response budget was allocated to MSM and FSW, respectively. The 2016 figure for domestic funding of the HIV response was US$3.9m.[27]
- Funding for the overall HIV response in Kenya is 25% domestic and 75% external, but key informants during the country visit confirmed that all key populations programs are externally funded: 68% by PEPFAR, 19% by the Global Fund, and 13% by other external partners.
- In Pakistan, there is almost no domestic funding for prevention and treatment for key populations. The Global Fund supports the provision of HIV services to PWID. The existing Global Fund grant that supports HIV services for MSM is in closeout phase.
- Malawi's Global Fund allocation for the 2017-2019 funding cycle is around US$370m plus US$10m in catalytic funding for reducing HIV among adolescent girls and young women and strengthening data systems. PEPFAR's total planned spending for HIV in Malawi in 2017 was US$126,660,944 (PEPFAR, 2017). During the country visit, it was reported that all key populations programs are externally funded.
- The Kyrgyz Republic has a transition plan in place to increase the portion of domestic funding which is devoted to the national HIV response; the current contribution is 43.3% of the total response, though this does not include funding for any key KP programming.
- In Benin, the Global Fund is the main funder for key population programs. This creates a vulnerability to funding variations, such as the incapacity to expand FSW interventions to more zones due to a decrease in Benin's current grant, and an interruption in programs due to the country partly shifting key population programming from the 2018-2020 grant to the Matching Funds grant. During the country visit, all peer education programs had stopped since the end of 2017, and some NGOs did not even have access to condoms since then. Although domestic funding has been increasing, none of these funds are going towards key population programming.

Some unusual results were:

- Madagascar has budgeted US$130m for its 2018-22 HIV Strategic Plan. Remarkably, the country devotes almost US$40m of this amount to HIV prevention among sex workers, with much smaller sums (all under US$0.5m) for HIV prevention among MSM, PWID and prisoners. The country is heavily dependent on the Global Fund for funding for key population

[27] UNAIDS 2018 Data Report

programming. Any gaps between Global Fund grants results in cessation of all peer education programs, including HIV prevention, condom distribution and referral for HIV testing.

- Tunisia has specific budget allocations in its most recent National Strategic Plan (2015-2018) for activities for 'vulnerable populations' and also specifically for PWID and sex workers.

Domestic funding for delivery of KP packages was rare in any of the reviewed countries. Some exceptions were:

- South Africa: The HIV response is 80% government-funded (including 100% of treatment) and 20% funded by development partners, with 3% from Global Fund. The government is only able to fund a minimum package of services for KP, with additional services dependent on donor funding. The Government has committed R86.5m (approximately US$7m) in 2018/2019 for the High Transmission Areas program. This includes services for KP, but the amounts are not disaggregated.
- Georgia: Increased the share of domestic funding over the last several years, so that it rose from 12% in 2008 to 32% in 2013. In 2014, state funding increased by an additional US$3m; however, it should be noted that as of the in-country visit conducted in late 2017, none of these funds were supporting outreach or basic prevention services for key populations, including needle and syringe programs, which remain fully dependent on Global Fund support.
- Guatemala: Expenditure on prevention among KP represents 10.1% of the total expenditure on HIV, of which about 98% is from international donors and 2% from domestic funds, mostly directed to FSW.
- Belarus: The government share of funding for key population programming is actively increasing. By engaging both national and municipal funding sources, projections are that domestic funds will contribute more than twice as much as Global Fund to key population programming.

Analysis: How are KP programs currently financed?

It was beyond the scope of this assessment process to conduct an in-depth financial analysis of costing, allocation and expenditure related to packages of services for key populations in the reviewed countries. However, what was found is a heavy reliance on Global Fund and other international donors to support key population programming in all countries. There is also a lack of detailed costing information available to assist governments to move KP financing back into domestic budgets. Detailed unit costs at the service delivery end of the costing spectrum (outreach workers, commodities, referral costs, case management) are generally available in CCM Concept Notes or proposals to other donors, but what is generally missing is practical core and management costs options for integrating KP service into national systems. Some countries have developed detailed costings to accompany new National HIV Strategies and Investments Case processes, but many countries still have little information available to assist in driving sustainability.

Cost information is a particularly critical input into the process of setting priorities and efficient allocation of resources and, given the urgency of scale-up to meet Fast-Track targets, countries must urgently fortify their expenditure analysis and budget development processes to be sure that sufficient resources are available to implement the designed packages of services as intended.

The reality of increasing dependence on the Global Fund, PEPFAR and other donor support to fill the funding gaps for key population programming is not sustainable. However, advocacy should not work

to decrease the dependence or majority percentage of HIV and key population programming resources from the Global Fund, but instead advocate for an increase. At the same time, advocacy to increase domestic funding allocations for the entire HIV budget as well as specific funding for key population services is ever important.

Despite the current widespread reliance on external funding for much of the KP activity in many countries, there were several examples of NGOs and CBOs being funded by governments to participate in the KP response. Obviously this is easier to achieve in countries where NGOs and CBOs are already an established part of the health system (like Papua New Guinea where NGOs and faith-based organizations deliver around 50% of healthcare) and more challenging in countries where social contracting is not the norm.[28] A 2017 global consultation on social contracting and HIV highlighted several good examples of KP NGOs and CBOs receiving grant funding and service contracts from national, provincial or city governments and playing a key role in KP service delivery. Some countries like Brazil, India and Mexico and Papua New Guinea have long-established NGO contracting mechanisms in their health systems. Other countries that have taken steps to open up opportunities for social contracting in HIV include Belarus, China, Croatia, the Former Yugoslav Republic of Macedonia, Guyana, Kazakhstan, the Kyrgyz Republics and Ukraine.

Another model that emerged from this assessment process was the funding of NGO KP service through government insurance schemes that provide an annual allocation per person with HIV for treatment, care and support. Love Yourself (an MSM organization operating in Manila) provides a one-stop-shop HIV, STI, TB prevention and care service for MSM. It also supports transgender clinics and includes legal aid in its services. Currently partially funded by a Global Fund allocation, it presents a sustainable model for KP service provision, as it is likely in the medium term to move across to 100% health insurance funding. As an accredited clinic under the Philippines health insurance agency PhilHealth, Love Yourself receives an annual allocation for each person with HIV on its register. This can be used to fund a range of health and welfare services. The current annual allocation per person with HIV is 30,000 Philippine Pesos (US$572) and the clinic had around 2,000 PLHIV on its register at the end of 2017.

[28] Social contracting is defined as the process by which government resources are used to fund entities which are not part of government (called here civil society organizations, or CSOs) to provide health services which the government has a responsibility to provide, in order to assure the health of its citizenry (Open Societies Foundation, Global Consultation 2017)

RECOMMENDATIONS: FINANCING OF SERVICE PACKAGES FOR KEY POPULATIONS

To the attention of	Recommendations
Global Fund, WHO, UNAIDS and partners	F1. Support the collection of better data on domestic funding of KP programs, and better costing, particularly of integration models and realistic NGO management, supervision and quality assurance models. F2. Ensure sufficient funding for HIV prevention. Many KP implementing agencies consulted during this assessment had received significant reductions in Global Funding and other donor funding exactly at a time when they were expected to increase coverage with HIV testing and prevention services. While transition discussions were underway in many of these countries, there was little evidence in most countries of realistic transition plans that would secure (or increase) HIV prevention among KP. F3. Assist governments to identify sustainable funding mechanisms for KP services. Models of inclusion of KP in national health insurance schemes and NGO KP service accreditation need to be documented and assistance provided to national governments to examine and adapt these where possible. Other funding innovations also need to be identified and promoted. F4. Provide urgent assistance to establish or strengthen social contracting mechanisms. This includes the development of standard performance contracts, quality standards, accountability and feedback mechanisms and policy and program assistance to sub-national jurisdictions. F5. Support more detailed costing studies to assist countries to identify realistic costs for integrating KP services into national health systems. This will assist in transition and in advocating for social contracting policies.
Global and regional KP Networks	F6. Support global and regional KP networks to play a greater role in advocacy for sustainable finance, innovative models of service delivery and quality management. Effective, sustainable models exist in many settings and these need to be explored and promoted by global and regional KP networks.

LIMITATIONS

There were several limitations in conducting this assessment process, including during the initial desk review portion of country assessments. It is important to note that 33 out of the 65 countries selected for this assessment were limited to 'desk review only', meaning that APMG Health did not conduct an in-country assessment to collect data and information that could verify that information found in the initial desk review. Desk review data from these countries has been included throughout this report.

For the 33 countries without country visits, the desk review process was limited by contractual time allowed – all 65 desk reviews needed to be completed over the course of 10 weeks - and by the scope of the review. Written sources reviewed were limited to those provided by Global Fund Country Teams in the last quarter of 2017.

The list of documents used for conducting these assessments has been considerably expanded for those countries selected for an in-country assessment. To the degree possible, data were expanded upon and verified by follow-up country visits; however, this process was also subject to time restrictions. As contracted by the Global Fund, only two sites and two populations were selected for focus in most countries, with few exceptions. It is important to note that because of this, country assessments may not have been representative of the national situation and reports only speak to the data available in the provinces, districts, and cities that were visited or within other reports reviewed. This limited the amount of data and information about other key populations that were not selected for the in-country data collection.

Data were collected in country by one international and one local consultant over a period of five or ten days, which limited the number of site visits, key informant interviews and focus group discussions consultants were able to conduct while in country.

During the in-country data collection, focus group discussion participants were identified by programs, which were being visited. Therefore, respondents may not have been representative of key populations more broadly. Focus group participants could have experienced peer pressure or pressure from program staff to give biased answers to the moderator's questions. Focus group discussions also seemed to be made up of a convenience sample of program participants who sought services fairly regularly or were even peer educators themselves. Therefore, the viewpoints of those members of KP who do not receive services, or face more barriers in receiving services, are not represented. Focus group discussions were often conducted in local languages, and therefore at times, were translated for the international consultant.

GLOBAL CONCLUSIONS

THE POINT OF THE PACKAGE

The design and implementation of HIV service packages for KP was promoted by WHO through its *Consolidated Guidelines*, and by UNAIDS and its partner organizations through both the WHO guidelines and other guidance published by UNFPA, UNODC and UNDP. The President's Emergency Plan for AIDS Relief (PEPFAR), especially through its LINKAGES program, has also promoted the development of KP service packages. The Global Fund has promoted service packages in its funding for HIV programs.

Returning to the beginning of this report, the rationale for these packages was said to be:

- Provision of a comprehensive package of evidence-based HIV-related recommendations for all key populations;
- Increased awareness of the needs of and issues important to key populations;
- Improved access, coverage and uptake of effective and acceptable services; and
- Catalyzed greater national and global commitment to adequate funding and services for KP.

While the assessment of 65 country situations through desk reviews and 32 country visits cannot be considered an evaluation of this approach globally, several conclusions emerge from the data that were collected (or not able to be collected) through this project.

The approach has been substantially successful. More countries have identified key populations for programming within their National Strategic Plans. More countries are implementing specific interventions for KP for HIV prevention, testing, treatment, and care and to address human rights barriers and co-morbidities. Few of the implemented activities lie outside the list designated by WHO and other agencies as evidence-informed HIV-related interventions. More countries know more about KP including population sizes, characteristics of KP, and how to reach and provide prevention products to KP. With more funding from international donors (and some increase in domestic funding), more countries are reaching more KP with appropriate services and can measure the reach and coverage of these interventions. So, the first conclusion is: it has worked!

It is notable that the design and implementation of service packages has been particularly useful in those countries where there are very strong barriers to even discussing issues such as homosexuality, drug use or sex work. By consolidating the recommendations for good practice into global guidance documents and, with many global authorities collaborating on communicating the need for service packages, international partners have encouraged countries that may have been nervous about even small-scale KP programming. For many of the reviewers conducting country visits, there was a level of surprise at the large amount of work that is being carried out in a very wide range of country contexts.

There are, of course, problems. One key issue is that, for the most part, the KP service packages have been paid for by donor funds, and compliance with the *Consolidated Guidelines* has been an overt or covert condition of funding. It is clear that some countries have been convinced that this approach has a public health benefit for the entire community and have started contributing to KP package funding from domestic resources, but this will not be the case for all countries. The recommendations at the end of each of the previous sections provide many ways that the current situation can be

improved. Here, we will concentrate on a few larger issues that may require a re-thinking of the way service packages are designed, implemented and monitored.

Limits of Standardized Packages

While there is no doubt that the promotion of comprehensive KP service packages has had an array of positive benefits, some of the issues observed during country visits suggest that there may be limits to the usefulness of the standardized packages that most countries have created in response to the *Consolidated Guidance*. Three trends in particular point to the need to consider changes to the way packages are designed and implemented at the country level.

The first and most obvious is the reduction of growth in HIV spending globally, particularly from international donors. While efforts are under way to increase domestic funding of HIV programs, there has been very limited success to date in encouraging governments to increase (or even to begin) funding KP programs. In addition, a substantial number of countries are either in transition or will transition from external donor funding for HIV during the next decade.

As shown in the graphs in the Design section, no country assessed provides the comprehensive set of interventions for all key populations. There are many reasons for this – including a lack of understanding of the need for all elements; lack of recognition (or reluctance to recognize) that a particular KP exists in the country; lack of specific medications (e.g., hepatitis C treatment), etc. – but a major reason is likely to be financial. The costs of ensuring all or the great majority of KP get access to the comprehensive list of interventions would be substantial and this is likely to be an important reason that countries have failed to build all interventions into their service package designs or to implement all interventions in the package. In most of the reviewed countries, the general population cannot get free access to all health products and services at times and places that they need them. To suppose that the same countries will make such a long list of interventions available and easily accessible to KP is asking a great deal.

In addition, the stigma and discrimination referred to in many reports and raised by KP in most focus group discussions works at the national decision-making level as well. In many countries, laws and government policies form some of the greatest barriers to access to services for KP. In these circumstances, one arm of government (the Ministry of Health) may be trying to increase funding for KP while another arm of government (Ministry of Interior or similar) is trying to remove KP from the community. Politically, it is often easy to ignore the health needs of KP. This may be a key reason why so few governments have shown an interest in funding KP programs, even during or after transition.

The second trend can be referred to as a narrowing of focus of outreach and peer education. This is not universal, but it is observed in many countries that outreach workers and/or peer educators are mostly seen as delivery systems for health products (condoms, lubricant, injecting equipment, IEC materials), as data collectors and as HIV testing promoters. As shown in the Implementation section, this has led to many complaints from KP that their real issues are not being addressed and that they are bored with the provision of outdated or irrelevant IEC materials, a single focus on HIV when their community has a broad range of health and welfare needs and what feels like the constant pressure to test for HIV. Even within their HIV activity, this narrowing of focus on testing was resulting in

insufficient funds and human resources for linkage to care for KP living with HIV and restrictions on KP NGO capacity to provide support to PLHIV.

The third trend is that there is a small group of the assessed countries with a very mature response to KP – often having started 15 years ago or more – for whom the standard service package may be too restrictive and may hamper creativity and local problem-solving. These countries include Indonesia, Kenya, the Philippines (MSM programs), South Africa and Ukraine.

A Differentiated Approach

The final conclusion of this report is that a differentiated approach to design and implementation of service packages, including at the population and sub-national level, is likely to be the most beneficial. Coverage for most interventions is low across the regions and there appear to be particular problems in testing sufficient numbers of the right people and, where they test positive, linking them to care in most countries. This finding, coupled with the findings related to stigma and discrimination, violence, legal issues, and so on suggests that there is a need for change. Differentiation may be useful in a number of ways.

The first differentiation to be made is between prisoners and all other KP. Prisoners (or those in other forms of detention including compulsory rehabilitation) are, by definition, institutionalized. There are very limited ways that critical enabler activities such as community empowerment and stigma reduction can work within these settings. Concepts such as voluntary HIV counselling and testing, confidentiality of test results and of treatment, and even outreach, may be unrealistic in closed settings. For this reason, the current advice from UNODC and partners (2013) should continue to be followed, but donors and governments must ensure significant resources are provided to designing and covering 90% or more of prisoners with a defined package of services. Reporting on these programs should be through national HIV reporting structures.

Among the four other KP, there are several ways that differentiation can be conceptualized. Decisions on the specific ways to differentiate packages in each country need to be made at the national level but global and regional KP networks should collaborate with WHO and other relevant technical partners to develop global guidance to assist this process.

Differentiation in design and implementation

All decisions on differentiation should take into account the specific characteristics of KP in the country. Where little is known about KP, no differentiation from the standard service packages should occur until further understanding can be attained.

To build on the foundations of the *Consolidated Guidelines*, there has been significant recent work on Differentiated Service Delivery (DSD) and this needs to be strengthened and scaled up in order to assist countries (and stakeholders within countries) to turn this guidance into sustained good practice. This guidance includes the *Consolidated Guidelines*, the KP-specific implementation guidance documents, the guidelines on HIV testing and HIV treatment and care. It also includes attention to the principles outlined the Global Prevention Coalition Roadmap (UNAIDS 2017b) and in the Decision Frameworks for ART service delivery for key populations and for HIV testing (International AIDS Society 2018, 2018a). A differentiated approach to service packages (as set out in the WHO

Consolidated Guidelines and supporting implementation guidelines) is likely to be the most beneficial, but has been difficult to achieve in practice.

One important way to differentiate is geographically. It is unlikely that any country can afford to provide the same level of comprehensive services to a rural SW or MSM as can be provided in the country's largest city. As seen in the Design and Implementation sections, countries such as South Africa and Kenya have examined these issues and provided different advice for providing services, depending on the size of the KP population in a district or county. (This has mapping and PSE implications discussed below). It may be useful to conceptualize a country as consisting of areas of high concentrations (AHCs) of a particular KP, usually in larger cities; areas of lower concentration (ALCs), often in peri-urban areas; and rural KP. Services could be designed to match these circumstances with perhaps:

- KP-led or KP-involved organizations (including clinics and ART distribution) in AHCs using a constantly expanding model of testing untested KP together with ongoing prevention for those who are negative and strong linkage to (and possibly provision of) care.
- A cohort approach (such as that used by Lifeline in South Africa) which tries to keep in regular contact with all KP members in ALCs, and where testing is done mostly for new entrants to the KP in that area (as well as regular yearly testing of HIV-negative KP).
- Rural KP may require a quite different approach, relying more on health care workers.
- In all cases, reduction of stigma and discrimination among healthcare workers would be a key activity.

Another way to differentiate is along the axis of community empowerment. In some countries, KP were afraid to even meet with reviewers due to the possibility of police or vigilante raids. In such circumstances, to rely on community-led organizations may be not merely ineffective but dangerous to KP. Differentiation could include:

- In those countries where KP are already running effective organizations or where a review shows that with some technical assistance this could occur: expand the range, role and activities of KP-led organizations.
- In those countries where KP cannot legally form NGOs, where the KP is generally not trusted to manage NGOs – active PWID rarely manage harm reduction NGOs – or KP representatives believe it would be too dangerous to start KP-led organizations: consider how to assure that NGOs led by people other than the KP involve the KP as much as possible in decision-making, planning, designing, implementing, monitoring and improving the quality of these organizations.

Differentiating along the axes above will lead to different types of service models in different places. Depending on the number of KP in a district and the existence or otherwise of KP-led or KP-involved organizations, HIV testing can be diversified with greater levels of community-based testing, self-testing may be promoted, index testing may be easier for communities to do for themselves rather than rely on healthcare workers. It should be noted that some KP in some countries – mostly MSM – expressed in focus groups deep fears of HIV testing and community-led responses may be the most effective ways to reduce these fears and increase testing. Similarly, there may be expanded roles of KP organizations in ART delivery and treatment adherence support as well as prevention.

The role of KP in planning and implementing critical enabler activities may need to be different, depending on the level of experience of KP-led organizations in the country. In countries without these organizations, simply placing an individual on a CCM or planning group as a representative of all KP in

the country is tokenistic and usually ineffective. At the least, training and technical support needs to be provided to such individuals and, if possible, national network-building should occur to ensure that KP representatives can, to at least some extent, represent the voices of the KP.

A final suggestion on differentiation is to assess the usefulness of service packages for specific sub-populations at higher risk. For example, should services offered be the same for men and women who inject drugs; for adolescent boys and men who have sex with men; for TG who sell sex and those who do not?

Differentiation in Monitoring

Whether differentiation occurs at the design and implementation levels or not, there certainly needs to be differentiation in monitoring of service provision. The process needs to begin with PSE which should, wherever possible, be accompanied by mapping. While most PSE exercises will not capture most KP in rural areas, a mapping process will at least allow for the areas of highest concentration to be identified. Another important point in PSE is to determine who exactly is being counted: generally the PSE should reflect the programming target which may mean active PWID (injected within the past 6 months; disaggregated by M/F/T and aged under or over 18); active SW (earned the majority of their income from SW, or sold sex in the past 6 months, depending on how closely you want to target; or a number of sexual partners could be used; disaggregated by M/F/T and aged under or over 18); MSM (more than one same-sex sexual partner in the past 6 months, disaggregated by aged under or over 18). TG populations are generally so small that the whole population can be considered, but there should be at least separate information on both TG men and TG women, and by those under and over 18.

There may also need to differentiation of service coverage monitoring based on the acceptance by KP of using national identification, health or health insurance numbers for HIV prevention and testing activities. The UIC was developed to address the fears of KP that they could be identified when coming forward for prevention services and to address the needs of programmers for accurate coverage estimation. However, during the country visits, it became apparent that some implementers in some countries are collecting official identification information, yet the KP involved have expressed no concerns about this. In many cases, this identifying information is being collected in conjunction with a cumbersome UIC.

In those countries where a KP – through its network(s) or through seeking the advice of its population members – agrees to have national ID information collected, the UIC can be dispensed with and there is no need to develop joined or combined databases for prevention and treatment. However, it must be stressed that this can only occur for those KP (and that may not include all KP in the country) who agree to share this information. For other KP, such as those who are most stigmatized or whose behavior is subject to persistent police raids, a UIC should continue to be used.

The standardized approach to KP package design and implementation was needed to bring many countries to the point where KP are the focus of resources and efforts to address the HIV epidemic. However, it is unlikely that this approach will enable countries to meet Global Prevention Coalition targets of 90% coverage of KP as well as UNAIDS 90-90-90 targets: the highest numbers of PLHIV and those needing treatment in most countries are likely to be KP. It should be noted that most KP had only nascent global and regional networks when the *Consolidated Guidelines* were first issued in 2014. Now, there are more KP networks with capacity built through Robert Carr civil society Networks Fund

(RCNF) and other funding and technical assistance sources. These networks should be resourced to work with international partners to develop guidance for differentiated approaches to KP service packages.

REFERENCES

Aidspan, Ng'ang'a, R. & Amendah, D. (2018). *Report: Data For Decision Making Roundtable*. Nairobi.

Amnesty International. (2017). *Less equal: LGBTI human rights defenders in Armenia, Belarus, Kazakhstan and Kyrgyzstan*. Retrieved from https://www.amnestyusa.org/reports/less-equal-lgbti-human-rights-defenders-in-armenia-belarus-kazakhstan-and-kyrgyzstan/

Baral, S., Trapence, G., Motimedi, F., Umar, E., Lipinge, S., Dausab, F. & Beyrer, C. (2009). HIV prevalence and risks for HIV infection, and human rights among men who have sex with men (MSM) in Malawi, Namibia and Botswana. *Plos One 26 March 2009: 4(3): e4997*. Retrieved from HTTPS://DOI.ORG/10.1371/JOURNAL.PONE.0004997

Burrows, D., Oberth, G., McCallum, L. & Parsons, D. (2016). *Transitions from donor funding to domestic reliance on HIV responses – Recommendations for transitioning countries.* Aidspan. Retrieved from http://www.aidspan.org/publication/transitions-donor-funding-domestic-reliance-hiv-responses-%E2%80%93-recommendations

Eurasian Coalition on Male Health. (2016). *HIV Among MSM in Eastern Europe and Central Asia – an Epidemiological Review.*

Global HIV Strategic Information Working Group. (2017) *Biobehavioural Survey Guidelines for Populations at Risk of HIV.* Geneva.

Health Policy Project. (2016). *Key Populations and HIV Programming in the Context of PEPFAR Funding Transitions: Lessons Learned from the Health Policy Project.*

ILGA: International Gay, Lesbian, Bisexual, Trans and Intersex Association. (2017). *Sexual Orientation Laws in the World*. Retrieved from https://www.ilga.org/downloads/2017/ILGA_WorldMap_ENGLISH_Overview_2017.pdf

International AIDS Society. (2018). *Differentiated Service Delivery for HIV: A Decision Framework for Antiretroviral Therapy Delivery for Key Populations*. Geneva.

International AIDS Society. (2018a). *Differentiated Service Delivery for HIV: A Decision Framework for HIV Testing Services*. Geneva.

Katz, I.T. & Tsai, A.C. (2015). Psychological therapy to improve HIV care and reduce stigma. *Lancet HIV. 2015 May; 2(5): e172-173.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4634562/

LINKAGES Project. (2018). *When Situations Go from Bad to Worse: Guidance for International and Regional Actors Responding to Acute Violence Against Key Populations*. Durham, NC.

Maiorana, A., Kegeles, S., Salazar, X., Konda, K., Silva-Santiesteban, A. & Caceres, C. (2016). "Proyecto Orgullo", an HIV prevention, empowerment and community mobilisation intervention for gay men and transgender women in Callao/ Lima. *Peru Global Public Health Aug-Sep 11(7-8): 1076-1092.*

McMillan, K., Worth, H. & Rawstorne, P. (2018). Usage of the Terms Prostitution, Sex Work, Transactional Sex, and Survival Sex: Their Utility in HIV Prevention Research. *Arch Sex Behav. 2018 Jul;47(5):1517-1527. doi: 10.1007/s10508-017-1140-0. Epub 2018 Jan 5.*

Medecins du Monde. (2014). *Santé des personnes usagères de drogue à Abidjan en Côte d'Ivoire - Prévalence et pratiques à risque d'infection par le VIH, les hépatites virales, et autres infections.* Abidjan.

Ministry of Public Health and Social Welfare, Guatemala. (2013). *Encuesta Centroamericana de Vigilancia de Comportamiento Sexual y Prevalencia del VIH e ITS en poblaciones vulnerables y en poblaciones clave (ECVC), Capítulo*. Guatemala.

NASCOP. (2018). *Leaving No One Behind: Key Population Programme in Kenya.* PowerPoint presentation delivered during key informant interview in APMG Health visit.

Oberth, G. & Whiteside, A. 2016. What Does Sustainability Mean in the HIV and AIDS Response? *African Journal of AIDS Research 15(1): 35–43*.

Onu, C., Ongeri, L., Bukisi, E., Cohen, C.R., Neylan, T.C., Oyaro, P…. Meffert, S.M. (2016). *Trials 2016. 17:64*. Retrieved from: https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-016-1187-6

Ruberintwari M., Lillie T., Edwards J., … Steen R. (2016). *Joint Global Fund/PEPFAR Cascade Assessment: Out-brief Report*.

Shannon, K., Strathdee, S.A., Goldenberg, S.M., Duff, P., Mwangi, P., Rusakova, M., Reza-Paul, S….Boily, M.C. (2015). Global Epidemiology of HIV Among Female Sex Workers: Influence of Structural Determinants. *Lancet. 2015 Jan 3; 385(9962): 55–71.*

Sharma, M., Burrows, D. & Bluthenthal, R. (2008). Improving coverage and scale-up of HIV prevention, treatment and care for injecting drug users: Moving the agenda forward. *International Journal of Drug Policy 19S (2008) S1-S4.*

SHIFT Project, Australian Federating of AIDS Organisations. (2017), *Baseline Evaluation Report of Sustainable HIV Financing in Transition (SHIFT) Project in Indonesia, Malaysia, Philippines and Thailand.*

UNAIDS. (2018). *Miles to go: closing gaps, breaking barriers, righting injustices.* Geneva. Retrieved from http://www.unaids.org/en/20180718_GR2018

UNAIDS. (2017). *Ending AIDS: Progress Towards the 90-90-90 Targets* Global AIDS *Update 2017*. Geneva. Retrieved from http://www.unaids.org/sites/default/files/media_asset/Global_AIDS_update_2017_en.pdf

UNAIDS (2017a). *HIV Prevention 2020 Road Map-- Accelerating HIV prevention to reduce new infections by 75%.* Geneva. Retrieved from http://www.unaids.org/en/resources/documents/2017/hiv-prevention-2020-road-map

UNAIDS. (2017b). *Global AIDS Monitoring 2018: Indicators for Monitoring the 2016 UN Political Declaration on Ending AIDS.* Geneva.

UNAIDS. (2016). *Snapshot 2016: People who inject drugs in Asia and the Pacific*. UNAIDS Regional Support Team for Asia and the Pacific and AIDS Data Hub, Bangkok. Retrieved from http://www.aidsdatahub.org/snapshot-2016-people-who-inject-drugs-asia-and-pacific-unaids-regional-support-team-asia-and-pacific

UNAIDS, UNHabitat. (2015). *Ending the AIDS Epidemic: The Advantage of Cities.* Geneva.

UNAIDS. (2014). *90-90-90: An ambitious treatment target to help end the AIDS epidemic.* Geneva. Retrieved from http://www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf

UNAIDS. (2014a). *Fast Track: Ending the AIDS epidemic by 2030.* Geneva. Retrieved from http://www.unaids.org/sites/default/files/media_asset/JC2686_WAD2014report_en.pdf

UNAIDS. (2010). *Guidelines on Estimating the Size of Populations Most at Risk of HIV* UNAIDS Working Group on Global HIV/AIDS and STI Surveillance. Geneva.

UNDP/ IRGT (a Global Network of Transgender Women and HIV)/ UNFPA/ UCSF Center of Excellence for Transgender Health/ Johns Hopkins Bloomberg School of Public Health/ WHO/ UNAIDS/ USAID. (2016). *Implementing comprehensive HIV and STI programmes with transgender people: practical guidance for collaborative interventions.* New York.

UNFPA/ Global Forum on MSM & HIV/ UNDP/ WHO/ USAID/ World Bank. (2015). *Implementing comprehensive HIV and STI programmes with men who have sex with men: practical guidance for collaborative interventions.* New York.

UNODC/ ILO/ UNDP/ WHO/ UNAIDS. (2013). HIV prevention, treatment and care in prisons and other closed settings: a comprehensive package of interventions. Vienna. Retrieved from https://www.unodc.org/documents/hiv-aids/HIV_comprehensive_package_prison_2013_eBook.pdf

UNODC. (2018): *Number and prevalence of PWID and those living with HIV among this group.* Vienna. Retrieved from https://dataunodc.un.org/drugs/pwid_hiv

UNODC/ UNAIDS/ UNDP/ United Nations Population Fund/ WHO/ USAID. (2017). *Implementing comprehensive HIV and HCV programmes with people who inject drugs: practical guidance for collaborative interventions.* Vienna.

UNODC. (n.d.) *Drug Use and HIV.* Vienna. Retrieved from: http://www.unodc.org/unodc/en/hiv-aids/new/drug-use_and_HIV.html

UNODC. (n.d.) *Prisons and HIV.* Vienna. Retrieved from: http://www.unodc.org/unodc/en/hiv-aids/new/prison_settings_HIV.html

WHO/ UNFPA/, UNAIDS/ Global Network of Sex Work Projects/ World Bank. (2013). *Implementing comprehensive HIV/STI programmes with sex workers: practical approaches from collaborative interventions.* Geneva.

WHO. (2014). *Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations.* Geneva.

WHO. (2016). *Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations: 2016 Update.* Geneva.

Regional Reports

Burrows, D., Parsons, D., McCallum, L. & Falkenberry, H. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in East and Southern Africa*. APMG Health, Washington, DC.

Burrows, D., Parsons, D., Falkenberry, H. & McCallum, L. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in Latin America & Caribbean*. APMG Health, Washington, DC.

Falkenberry, H., Parsons, D., Burrows, D., & McCallum, L. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in Middle East and North Africa*. APMG Health, Washington, DC.

Parsons, D., Burrows, D., Falkenberry, H. & McCallum, L. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in Eastern Europe and Central Asia*. APMG Health, Washington, DC.

McCallum, L., Perez, S., Burrows, D., Parsons, D. & Falkenberry, H. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in Asia and the Pacific*. APMG Health, Washington, DC.

Perez, S., Burrows, D., Parsons, D., McCallum, L. & Falkenberry, H. (March 2019). *Regional Summary of Findings of an Assessment of HIV Service Packages for Key Populations in Selected Countries in West and Central Africa.* APMG Health, Washington, DC.

Country Reports

(Country reports were based on in-country visits. Desk review reports were not made available outside GF.)

Burrows, D., McCallum, L., Konstant, T., Jacobson, S., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in South Africa*. APMG Health, Washington, DC.

Falkenberry, H., Gexha-Bunjaku, D. & Burrows, D. (March 2018). *Assessment of HIV Service Packages for Key Populations in Kosovo.* APMG Health, Washington, DC.

Forrest, J., McCallum, L., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Guyana.* APMG Health, Washington, DC.

Forrest, J., Thumath, M., Burrows, D., McCallum, L., Parsons, D. & Falkenberry, H. (June 2018). *Assessment of HIV Services Packages for Key Populations in Cameroon.* APMG Health, Washington, DC.

Forrest, J., Thumath, M., Jean, S., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Haiti.* APMG Health, Washington, DC.

Likatavicius, G., Burrows, D., Parsons, D. & Falkenberry, H. (April 2018). *Assessment of HIV Service Packages for Key Populations in Armenia.* APMG Health, Washington, DC.

Likatavicius, G., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Belarus.* APMG Health, Washington, DC.

Likatavicius, G., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Georgia*. APMG Health, Washington, DC.

Likatavicius, G., Burrows, D., Parsons, D. & Falkenberry, H. (March, 2018). *Assessment of HIV Service Packages for Key Populations in Kyrgyz Republic.* APMG Health, Washington, DC.

Likatavicius, G., Burrows, D., Parsons, D. & Falkenberry, H. (March 2018). *Assessment of HIV Service Packages for Key Populations in the Republic of Moldova.* APMG Health, Washington, DC.

Likatavicius, G., Burrows, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Ukraine.* APMG Health, Washington, DC.

McCallum, L., Falkenberry, H., Burrows, D. & Parsons, D. (April 2018). *Assessment of HIV Service Packages for Key Populations in Indonesia.* APMG Health, Washington, DC.

McCallum, L., Falkenberry, H., Burrows, D. & Parsons, D. (June 2018) *Assessment of HIV Service Packages for Key Populations in Philippines*. APMG Health, Washington, DC.

Mhirsi, Z., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in the Republic of Morocco.* APMG Health, Washington, DC.

Mhirsi, Z., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in the Republic of Tunisia*. APMG Health, Washington, DC.

Mhirsi, Z., Burrows, D., Parsons, D. & Falkenberry, H. (June 2018). *Assessment of HIV Service Packages for Key Populations in the Republic of Sudan.* APMG Health, Washington, DC

Oberth, G., Burrows, D., Lewa, R., Parsons, D. & Falkenberry, H. (March 2018) *Assessment of HIV Service Packages for Key Populations in Kenya.* APMG Health, Washington, DC.

Oberth, G., Gausi, E., Jacobson, S., Burrows, D., Parsons, D. & Falkenberry H. (May 2018) *Assessment of HIV Service Packages for Key Populations in Malawi*. APMG Health, Washington, DC.

Peerun, N., Randriantsimaniry, D., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Service Packages for Key Populations in Madagascar.* APMG Health, Washington, DC.

Peerun, N., Burrows, D., Parsons, D. & Falkenberry, H. (May 2018). *Assessment of HIV Services Packages for Key Populations in Benin.* APMG Health, Washington, DC

Peerun, N., Burrows, D., Parsons, D. & Falkenberry, H. (2018). *Assessment of HIV Services Packages for Key Populations in Togo*. APMG Health, Washington, DC

Tairova, Z. & Burrows, D. (April 2018). *Assessment of HIV Service Packages for Key Populations in Uzbekistan.* APMG Health, Washington, DC.

Tallada, J., Burrows, D., Parsons, D. & Falkenberry, H. (March 2018). *Assessment of HIV Service Packages for Key Populations in Angola*. APMG Health, Washington, DC.

Tallada, J., Burrows, D., Parsons, D. & Falkenberry, H. (June 2018). *Assessment of HIV Service Packages for Key Populations in the Dominican Republic.* APMG Health, Washington, DC

Tallada, J., Burrows, D., Parsons, D. & Falkenberry, H. (June 2018). *Assessment of HIV Service Packages for Key Populations in Guatemala*. APMG Health, Washington, DC

Tallada, J., Burrows, D., Parsons, D. & Falkenberry, H. (June 2018). *Assessment of HIV Service Packages for Key Populations in Peru.* APMG Health, Washington, DC

Tallada, J., Burrows, D., Parsons, D. & Falkenberry, H. (January 2018). *Assessment of HIV Services Packages for Key Populations in Mali.* APMG Health, Washington, DC

Thumath, M., Burrows, D., McCallum, L., Parsons, D. & Falkenberry, H (April 2018). *Assessment of HIV Services Packages for Key Populations in Sierra Leone.* APMG Health, Washington, DC.

Uhrig, J., Parsons, D., Falkenberry, H., Burrows, D. & McCallum, L. (February 2018). *Assessment of HIV Service Packages for Key Populations in Afghanistan*. APMG Health, Washington, DC.

Uhrig, J., Parsons, D., Falkenberry, H., Burrows, D. & McCallum, L. (May 2018). *Assessment of HIV Service Packages for Key Populations in Nepal*. APMG Health, Washington, DC.

Uhrig, J., Parsons, D., Falkenberry, H., Burrows, D. & McCallum, L. (May 2018). *Assessment of HIV Service Packages for Key Populations in Pakistan.* APMG Health, Washington, DC.

McCallum, L., Uhrig, J., Falkenberry, H., Burrows, D. & Parsons, D. (May 2018). *Assessment of HIV Service Packages for Key Populations in Papua New Guinea*. APMG Health, Washington, DC.

World Prison Brief. (2018). World Prisons Populations List. Retrieved from http://www.prisonstudies.org/sites/default/files/resources/downloads/wppl_12.pdf

ANNEXES

ANNEX 1. PSE & HIV PREVALENCE BY KEY POPULATION

Table A1.1. MSM Population Size Estimate and HIV Prevalence, by Country (65)

Region & Country **Indicates desk review only*	Population Size Estimate	HIV Prevalence
Asia and the Pacific		
Afghanistan	10,700 (2015)	0.5% (2012)
Bangladesh*	101,695 (2015)	0.5% (2015)
Cambodia*	31,000 (2014)	2.3% (2018)
India*	238,175 (2015)	2.7% (2018)
Indonesia	754, 310 (2016)	25.8% (2017)
Mongolia*	3,118 (2014)	9.2% (2017)
Nepal	60,333 (2016)	5.0% (2017)
Pakistan	832,213 (2016)	3.7% (2018)
Papua New Guinea	109,602 (2017)	8.5% Port Moresby; 7.1% Lae (2016)
Philippines	531,500 (2017)	4.9% (2018)
Sri Lanka*	7,551 (2013)	1.5% (2018)
Thailand*	571,000 (2017)	26.2% (2016)
Timor-Leste*	8,703 (2014)	1.3% (2011)
Vietnam*	382,000 (2018)	12.2% (2018)
Eastern Europe & Central Asia		
Armenia	12,461 (2016)	0.76% (2016)
Azerbaijan*	6,600 (2011)	2.2% (2016)
Belarus	59,500 (2016)	5.7% (2015)
Bosnia & Herzegovina *	6,900 (2012)	1.1% (2016)
Georgia	17,215 (2014)	20.7% (2016)
Kazakhstan*	61,966 (2017)	3.2% (2016)
Kosovo	6,445 (2016)	<5.0% (2014)
Kyrgyz Republic	16,900 (2016)	6.6% (2016)
Moldova	17,100 (2017)	9.0% (Chisinau); 4.1% (Balti) (2017)
Tajikistan*	13,500 (2016)	2.7% (2016)
Ukraine	181,500 (2016)	7.5% (2017)
Uzbekistan	2,735 (2014)	3.3% (2015)
Eastern & Southern Africa		
Angola	106,231 (2016)	2.0% (2016)
Botswana*	781(2012)	13.1% (2012)
Kenya	18,460(2018)	18.2% (2018)
Lesotho*	11,400(2014)	32.9% (2017)
Madagascar	14,919(2014)	14.8% (2014)
Malawi	9,616(2017)	17.3% (2013)
Mauritius*	5,467(2014)	20.0% (2013)
Seychelles*	1,084(2011)	13.2% (2011)
South Africa	1,095,527(2015)	28.0% (2017)
Tanzania*	50,000(2014)	17.6% (2014)
Uganda*	253(2014)	13.2% (2014)

Latin America & the Caribbean		
Bolivia*	29,490(2016)	25.4% (2014)
Dominican Republic	130,572(2017)	7.1% (2013)
Ecuador*	47,410(2015)	13.3% (2015)
El Salvador*	54,140(2016)	10.3% (2016)
Guatemala	104,872(2018)	10.5% (2017)
Guyana	3,327(2014)	Youth: 3.1%; Adult: 4.6% (2014)
Haiti	30,853[29](2014)	18.2% (2014)
Honduras*	40,949(2016)	11.7% (2016)
Panama*	15,842(2014)	13.1% (2016)
Paraguay*	24,115(2014)	15.4% (2014)
Peru	250,000(2016)	15.2% (2016)
Middle East & North Africa		
Egypt*	64,318(2014)	5.7% (Cairo); 5.9% (Alexandria) (2010)
Iran*	360,000(2015)	14.8% (2007)
Jordan*	N/A	0.2% (2013)
Lebanon*	4,220 [2,243-8,304][30](2015)	12.6%[31](2015)
Morocco	45,000(2016)	5.7% (2015)
Sudan	129,872(2015)	1.4%(2015)
Tunisia	29,888(2014)	9.1% (2014)
Western & Central Africa		
Benin	5,846(2018)	7.0% (2018)
Burundi*	9,346(2013)	4.8% (2013)
Cameroon	66,842(2015)	20.6% (2015)
Cape Verde*	694(2013)	6.1% (2013)
Cote d'Ivoire*	59,040(2016)	11.6% (2018)
Ghana*	18,700(2015)	17.5% (2015)
Mali	18,700(2015)	13.7% (2018)
Nigeria*	26,013(2018)	22.9% (2018)
Sierra Leone	20,000(2016)	14.0% (2016)
Togo	7,649(2014)	22.0% (2018)

Table A1.2. PWID Population Size Estimate and HIV Prevalence, by Country (65)

Region & Country **Indicates desk review only*	Population Size Estimate	HIV Prevalence
Asia & Pacific		
Afghanistan	40,900 (2016)	4.4% (2012)
Bangladesh*	33,066 (2015)	18.1% (2018)
Cambodia*	1,300 (2012)	15.2% (2018)
India*	127,532	6.3% (2018)
Indonesia	33,492 (2016)	28.8% (2018)
Mongolia*	570 (2016)	N/A

[29] IBBS 2014, PSE for 5 main Departments :Ouest, Sud, Artibonite, Nord and Nord-Est
[30] Project CROSSROADS
[31] Project CROSSROADS

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Nepal	30,868 (2016)	8.8% (2017)
Pakistan	113,422 (2017)	21.0% (2018)
Papua New Guinea	N/A	N/A
Philippines	10,000-21,700 (2015)	Cebu City (male) 42.8% Cebu City (female) 25.24% Mandaue City 29% (2015)
Sri Lanka*	423 (2013)	0.0% (2018)
Thailand*	42,000 (2014)	20.5% (2018)
Timor-Leste*	53 (2014)	N/A
Vietnam*	271,000 (2016)	14.0% (2018)
Eastern Europe & Central Asia		
Armenia	12,700 (2016)	<2.0% (2016)
Azerbaijan*	71,283 (2011)	8.5% (2016)
Belarus	66,500(2016)	25.1% (2016)
Bosnia & Herzegovina *	12,500 (2012)	0.0% (2016)
Georgia	49,000(2015)	2.2% (2016)
Kazakhstan*	120,500(2016)	8.5% (2016)
Kosovo	5,819(2016)	<1.0% (2014)
Kyrgyz Republic	26,700(2016)	14.3% (2016)
Moldova	36,900(2017)	13.9% (Chisinau); 17.0% (Balti) (2017)
Tajikistan*	23,100(2014)	12.9% (2014)
Ukraine	346,900(2016)	22.6% (2017)
Uzbekistan	48,000(2013)	5.6% (2015)
Eastern & Southern Africa		
Angola	N/A	N/A
Botswana*	N/A	N/A
Kenya	18,327(2018)	18.7% (2018)
Lesotho*	N/A	N/A
Madagascar	2,033(2014)	8.5% (2014)
Malawi	N/A	N/A
Mauritius*	11,677(2014)	44.3% (2013)
Seychelles*	1,671	0.8%
South Africa	75,701(2015)	14.0% (2017)
Tanzania*	30,000(2014)	15.5% (2014)
Uganda*	2292014)	N/A
Latin America & Caribbean		
Bolivia*	N/A	N/A
Dominican Republic	900(2013)	N/A
Ecuador*	12,000(2015)	N/A
El Salvador*	N/A	N/A
Guatemala	N/A	N/A
Guyana	N/A	N/A
Haiti	N/A	N/A
Honduras*	2,858(2016)	N/A
Panama*	N/A	N/A
Paraguay*	5,714(2014)	9.1%(2006)
Peru	N/A	N/A

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Middle East & North Africa		
Egypt*	93,314(2014)	6.5% (2010)
Iran*	200,000(2015)	15.0% (2010)
Jordan*	N/A	0.0% (2013)
Lebanon*	3,114 [703-7,507][32](2015)	0.3%[33](2015)
Morocco	1,500(2015)	7.9% (2015)
Sudan	N/A	N/A
Tunisia	13,000(2014)	3.9% (2014)
Western & Central Africa		
Benin	700(2017)	2.2% (2018)
Burundi*	N/A	10.2% (2013)
Cameroon	N/A	N/A
Cape Verde*	2,192(2013)	39% (2013)
Cote d'Ivoire*	129(2013)	5.3% (2018)
Ghana*	5,500(2010)	11.4%[34](2015)
Mali	749(2018)	5.0% (2018)
Nigeria*	44,515(2018)	3.4% (2018)
Sierra Leone	1,500+ (2016)	8.5% (2016)
Togo	2,289(2018)	3.9% (2018)

Table A1.3. SW Population Size Estimate and HIV Prevalence, by Country (65)

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Asia & the Pacific		
Afghanistan	12,500 (2015)	0.3% (2012)
Bangladesh*	139,961 (2015)	0.2% (2018)
Cambodia*	34,000 (2011)	2.3% (2018)
India*	657,829 (2015)	1.6%(2018)
Indonesia	226,791 (2016)	5.3% (2018)
Mongolia*	918 (2015)	0.0% (2018)
Nepal	49,013 (2017)	2.0% (Kathmandu); 1.4% (Six highway districts) (2017)
Pakistan	173,447 (2017)	2.1% (2018)
Papua New Guinea	52,725 (2017)	14.9% (2016)
Philippines	66,100 (2015)	0.4% (2018)
Sri Lanka*	14,132 (2013)	0.0%(2018)
Thailand*	147,000[35] (2011)	2.3% (2018)
Timor-Leste*	1,688 (2014)	1.5% (2011)
Vietnam*	72,000 (2013)	3.7% (2018)
Eastern Europe & Central Asia		
Armenia	5,600(2016)	<0.1% (2016)

[32] Project CROSSROADS
[33] Project CROSSROADS
[34] Study carried out among prisoner PWID
[35] Both MSW and FSW

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Azerbaijan*	25,054(2011)	2.3% (2016)
Belarus	22,000(2015)	7.0% (2017)
Bosnia & Herzegovina *	4,000(2012)	0.0% (2016)
Georgia	6,525(2014)	0.7% (2014)
Kazakhstan*	19,100(2011)	1.3% (2015)
Kosovo	5,037(2016)	<1.0% (2014)
Kyrgyz Republic	10,600(2016)	2.0% (2016)
Moldova	21,300(2017)	3.9% (Chisinau); 22.3% (Balti) (2017)
Tajikistan*	14,100(2014)	3.5% (2014)
Ukraine	80,000(2016)	5.2% (2017)
Uzbekistan	22,000(2016)	2.8% (2015)
Eastern & Southern Africa		
Angola	124,540(2016)	2.2% (2016)
Botswana*	4,153(2012)	61.9% (2012)
Kenya	133,675(2018)	29.3% (2018)
Lesotho*	6,300(2014)	71.9% (2017)
Madagascar	167,442(2014)	5.6% (2014)
Malawi	31,800(2017)	24.9% (2017)
Mauritius*	6,223(2014)	22.3% (2013)
Seychelles*	586(2013)	4.6% (2013)
South Africa	237,717(2015)	57.7% (2013)
Tanzania*	160,000(2017)	28.0% (2014)
Uganda*	2,148(2014)	34.2% (2014)
Latin America & the Caribbean		
Bolivia*	13,130(2016)	0.6% (2014)
Dominican Republic	97,758(2017)	3.7% (2013)
Ecuador*	34,420(2015)	3.2% (2015)
El Salvador*	12,098(2011)	2.8% (2016)
Guatemala	25,846(2018)	1.0% (2017)
Guyana	5,256(2014)	Female: 6.1%; Male: 5.5%; TG: 9.7% (2014)
Haiti	70,302(2014)	8.4% (2014)
Honduras*	22,771(2016)	5.3% (2016)
Panama*	5,217(2014)	2.0% (2015)
Paraguay*	3,369(2014)	7.0% (2014)
Peru	67,000(2016)	Female: 1.30%; Male: 14.6% (2016)
Middle East & North Africa		
Egypt*	22,986 (2014)	0.9% FSW Cairo; 3.4% MSW Cairo (2010)
Iran*	395,183(2015)	4.5% (2010)
Jordan*	N/A	0.5% (2013)
Lebanon*	N/A	N/A
Morocco	75,000(2016)	2.0% (2016)
Sudan	148,083(2015)	1.3% (2015)
Tunisia	23,500(2014)	N/A

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Western & Central Africa		
Benin	16,219(2017)	8.5% (2018)
Burundi*	51,482(2013)	21.3% (2013)
Cameroon	115,000(2015)	24.3% (2018)
Cape Verde*	1,665(2017)	4.6% (2018)
Cote d'Ivoire*	9,211(2013)	11.4% (2018)
Ghana*	63,275(2015)	6.9% (2015)
Mali	35,903(2018)	24.2% (2009)
Nigeria*	103,506(2018)	14.4% (2018)
Sierra Leone	240,000(2016)	7.0% (2016)
Togo	10,284(2014)	13.2% (2018)

Table A1.4. TG Population Size Estimate and HIV Prevalence, by Country (65)

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Asia & Pacific		
Afghanistan	N/A	N/A
Bangladesh*	10,199(2015)	1.0%
Cambodia*	3,000 (2016)	5.9%
India*	70,000 (2016)	7.2%
Indonesia	38,928(2016)	24.8% (2018)
Mongolia*	N/A	N/A
Nepal	21,460 (2016)	8.5% (2017)
Pakistan	52,424[36] (2017)	5.5% (2018)
Papua New Guinea	20,070 (2014)	N/A
Philippines	122,800 (2015)	1.7%; Cebu City 11.8% (2015)
Sri Lanka*	N/A	N/A
Thailand*	62,800 (2016)	13.8% (2018)
Timor-Leste*	N/A	N/A
Vietnam*	N/A	18.0% (2018)
Eastern Europe & Central Asia		
Armenia	N/A	N/A
Azerbaijan*	N/A	N/A
Belarus	N/A	N/A
Bosnia & Herzegovina *	N/A	N/A
Georgia	N/A	N/A
Kazakhstan*	N/A	N/A
Kosovo	N/A	N/A
Kyrgyz Republic	N/A	N/A
Moldova	N/A	N/A
Tajikistan*	N/A	N/A
Ukraine	N/A	N/A
Uzbekistan	N/A	N/A
Eastern & Southern Africa		

[36] TG Women

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Angola	N/A	9.9% (2016)
Botswana*	N/A	N/A
Kenya	N/A	N/A
Lesotho*	N/A	N/A
Madagascar	N/A	N/A
Malawi	N/A	N/A
Mauritius*	1,407(2014)	N/A
Seychelles*	N/A	N/A
South Africa	139,666(2015)	N/A
Tanzania*	N/A	N/A
Uganda*	N/A	N/A
Latin America & Caribbean		
Bolivia*	833(2014)	19.7% (2012)
Dominican Republic	3,900[37](2016)	17.8% - 38.5%[38] (2016)
Ecuador*	12,230(2014)	32.0% (2015)
El Salvador*	2,011(2014)	16.6% (2014)
Guatemala	4,840[39](2018)	24.0%[40] (2014)
Guyana	401(2014)	Youth: 9.1%; Adult: 7.8% (2014)
Haiti	N/A	N/A
Honduras*	2,975(2016)	11.9% (2011)
Panama*	888(2013)	15.0% (2016)
Paraguay*	904(2014)	26.2% (2011)
Peru	33,000[41](2016)	13.8%[42] (2016)
Middle East & North Africa		
Egypt*	N/A	N/A
Iran*	N/A	N/A
Jordan*	N/A	N/A
Lebanon*	N/A	N/A
Morocco	N/A	N/A
Sudan	N/A	N/A
Tunisia	N/A	N/A
Western & Central Africa		
Benin	N/A	N/A
Burundi*	N/A	N/A
Cameroon	N/A	N/A
Cape Verde*	N/A	N/A
Cote d'Ivoire*	N/A	N/A
Ghana*	N/A	N/A
Mali	N/A	N/A
Nigeria*	N/A	N/A

[37] TG women

[38] TG women; Range between lowest and highest prevalence depending on the province, out of a total of 6 selected provinces, ECVS Report, 2016.

[39] TG women

[40] TG women

[41] TG women

[42] TG women

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Sierra Leone	500 (2017)	N/A
Togo	N/A	N/A

Table A1.5. Prisoner Population Size Estimate and HIV Prevalence, by Country (65)

Region & Country *Indicates desk review only*	**Population Size Estimate**	**HIV Prevalence**
Asia & the Pacific		
Afghanistan	24,600 (2012)	0.07% (2018)
Bangladesh*	734,344 (2015)	N/A
Cambodia*	17,500 (2015)	N/A
India*	419,623 (2016)	N/A
Indonesia	39,000(2016)	2.6%(2016)
Mongolia*	N/A	N/A
Nepal	N/A	N/A
Pakistan	N/A	N/A
Papua New Guinea	4,945 (2016)	N/A
Philippines	N/A	N/A
Sri Lanka*	N/A	N/A
Thailand*	311,587 (2017)	N/A
Timor-Leste*	N/A	N/A
Vietnam*	N/A	N/A
Eastern Europe & Central Asia		
Armenia	3,894(2015)	1.2% (2016)
Azerbaijan*	17,000(2014)	2.8% (2016)
Belarus	31,700(2015)	0.5% (2014)
Bosnia & Herzegovina*	N/A	N/A
Georgia	9,724(2015)	0.9% (2015)
Kazakhstan*	36,000(2016)	2.7% (2016)
Kosovo	1,600(2015)	N/A
Kyrgyz Republic	7,961(2016)	11.3% (2016)
Moldova	5,329(2015)	3.8% (2017)
Tajikistan*	9,800(2016)	8.4% (2013)
Ukraine	60,876(2016)	7.6% (2017)
Uzbekistan	42,000(2015)	4.7% (2015)
Eastern & Southern Africa		
Angola	24,000(2016)	N/A
Botswana*	4,376(2016)	N/A
Kenya	54,000(2016)	N/A
Lesotho*	2,564(2011)	31.4% (2011)
Madagascar	20,954(2016)	N/A
Malawi	14,795(2016)	N/A
Mauritius*	N/A	11.8% (2016)
Seychelles*	423(2016)	N/A
South Africa	154,648(2016)	23.0% (2017)
Tanzania*	31,382(2016)	6.7% (2017)
Uganda*	54,049(2016)	16.7% (2014)

Region & Country *Indicates desk review only	Population Size Estimate	HIV Prevalence
Latin America & the Caribbean		
Bolivia*	N/A	N/A
Dominican Republic	25,890(2015)	N/A
Ecuador*	N/A	1.4% (2009)
El Salvador*	35,440(2016)	N/A
Guatemala	7,082(2013)	0.7% (2013)
Guyana	N/A	N/A
Haiti	N/A	4.3% (2016)
Honduras*	N/A	N/A
Panama*	18,000(2014)	6.4% (2015)
Paraguay*	N/A	N/A
Peru	82,000(2016)	0.8% (2016)
Middle East & North Africa		
Egypt*	106,000(2016)	N/A
Iran*	230,000(2016)	1.6% (2009)
Jordan*	15,700(2016)	N/A
Lebanon*	6,330(2016)	N/A
Morocco	82,512(2016)	0.5% (2016)
Sudan	21,000(2016)	N/A
Tunisia	20,745(2016)	0.9%
Western & Central Africa		
Benin	7,890(2016)	0.6% (2018)
Burundi*	10,093(2016)	3.0% (2018)
Cameroon	29,341(2016)	3.96% (2018)
Cape Verde*	1,542(2016)	N/A
Cote d'Ivoire*	9,211(2016)	1.2% (2018)
Ghana*	15,063(2016)	2.3% (2016)
Mali	5,209(2016)	1.4% (2018)
Nigeria*	75,176(2016)	N/A
Sierra Leone	4,519(016)	2.2% (2016)
Togo	4,639(2016)	4.3% (2013)

ANNEX 2. KEY POPULATIONS IDENTIFIED IN NATIONAL REFERENCE DOCUMENTS IN COUNTRIES ASSESSED

Table A2.1. KP identified in national documents by countries

Country **Indicates desk review only*	Key Populations Identified	Document(s) Defining Service Packages for Key Populations
Asia and the Pacific		
Afghanistan	PWID, MSM, prisoners	HIV Standard Service Delivery Package (National AIDS Control Program), draft 2017
Bangladesh*	MSM, PWID, SW, TG women (hijra)	National HIV Strategy 2018-2022
Cambodia*	MSM, FSW[43], PWID, TG women	Health Sector Strategic Plan for HIV/AIDS & STI Prevention and Control 2016-2020
India*	FSW, MSM, TG, PWID, prisoners	National Strategic Plan 2017-2024
Indonesia	PWID, MSM, TG women (Waria), FSW	National Action Plan HIV-AIDS 2015-2019 (draft)
Mongolia*	FSW, MSM, PWID	National Strategic Plan 2010-2015
Nepal	MSM, TG women, PWID, FSW[44]	Packages not included in the National HIV Strategic Plan 2016-2021 (only in Funding Request submitted to the Global Fund in 2017)
Pakistan	PWID, MSM, SW, TG women (hijra) sex workers	Pakistan AIDS Strategy III, 2017 Revision
Papua New Guinea	FSW, MSM, TG	National STI and HIV Strategy 2018-2022
Philippines	FSW, MSM, TG, PWID, young key populations	Health Sector Plan for HIV and STI 2015-2020; HIV Prevention and Control Operational Plan 2018 - 2020
Sri Lanka*	FSW, MSM, PWID, prisoners[45]	National HIV Strategic Plan 2013-2017
Thailand*	MSM, TG, SW, PWID, prisoners	National AIDS Strategy for 2012-2016; National Operational Plan: Accelerating Ending AIDS 2015-2019
Timor-Leste*	MSM, TG, SW	National Strategic Plan 2017-2020

[43] Preferred term in Cambodia for FSW is "Female Entertainment Workers" (FEW)
[44] Although FSW are not identified as a KP in the national plan, a package of services has been designed for FSW in five districts using USAID resources.
[45] Prisoners are identified as a vulnerable population.

Vietnam*	FSW, MSM, PWID	Not specifically identified in the National Strategy on HIV/AIDS Prevention and Control in Vietnam til 2020 with a Vision to 2030
Eastern and Southern Africa		
Angola	None[46]	National Strategic Plan 2015-2018
Botswana*	SW[47]	Second National Strategic Framework 2010-2016
Kenya	SW, MSM, PWID[48]	Kenya AIDS Strategic Framework 2014/2015-2018/2019, Key Populations Programming Guidelines (2015), Prevention Revolution Roadmap (2014)
Lesotho*	FSW, MSM, prisoners[49]	National HIV and AIDS Strategic Plan 2011/2012-2017/2018
Madagascar	MSM, PWID, FSW	National Strategic Plan for a Multi-Sectorial Response to STI, HIV, and AIDS 2018-2022
Malawi	FSW (and their clients), MSM[50]	National Strategic Plan for HIV (2015-2020) & National HIV Prevention Strategy (2015-2020)
Mauritius*	MSM, FSW, PWID	National Strategic Framework 2013-2016
Seychelles*	MSM, FSW, PWID	National Strategic Framework 2012-2016
South Africa	Prisoners, MSM, people who use drugs (including PWID), SW, TG people	National Strategic Plan for HIV, TB, and STIs 2017-2022
Tanzania*	FSW, MSM, PWID	National Guidelines for the Management of HIV and AIDS (2017) & National Comprehensive Package Guidelines (2017)
Uganda*	FSW[51]	National HIV and AIDS Strategic Plan (2015/2016-2019/2020)
Eastern Europe and Central Asia		

[46] MSM and FSW not identified in the National Strategic Plan; only in the Global Fund Concept Note 2015
[47] Does not identify key populations, but identified most at-risk populations (MARPs) which include: sex workers, truck drivers, seasonal farm workers, and construction workers; the 2014 Concept Note identifies SW, MSM, and adolescents
[48] Other vulnerable populations identified: young girls and women, people in prisons and other closed settings, fishing communities, truck drivers, street children, people with disabilities, migrant populations, mobile workers, and PLHIV
[49] Also includes mobile and migrant populations
[50] Other vulnerable populations identified: young women, couples, PLHIV
[51] FSW are mentioned in the plan; however, no package of services is outlined for FSW or other KP in this document

Armenia	Migrants[52], PWID, MSM, FSW, prisoners[53]	National Program on HIV/AIDS Prevention in the Republic of Armenia 2017-2021
Azerbaijan*	PWID, FSW, MSM, prisoners	No national document available at the time of the desk review; Services being provided in Azerbaijan as of 2014, according to the Review of the HIV Programme
Belarus	PWID, MSM, FSW, prisoners	Belarus National HIV/AIDS Prophylactic Program for 2016-2020
Bosnia*	MSM, FSW, PWID, prisoners	Strategy to respond to HIV and AIDS in Bosnia and Herzegovina 2011 – 2016 is to ensure the universal approach towards prevention, treatment, care and social support; Phase II of the Global Fund funded Round 9 HIV Program in BiH (2013 – 2015)
Georgia	PWID, MSM, FSW, TG[54], prisoners	The Georgian National HIV/AIDS Strategic Plan for 2016-2018
Kazakhstan*	PWID, MSM, FSW, prisoners	Comprehensive plan on HIV prevention in Republic of Kazakhstan for 2014 – 2020 and Concept on development of the Service on HIV prevention and response in Kazakhstan for 2016 – 2020
Kosovo	MSM, PWID, FSW, prisoners, at-risk youth[55]	National HIV/AIDS Strategic Action Plan Kosovo 2018-2020
Kyrgyz Republic	PWID, MSM, SW, TG[56], and prisoners	The Government Program to Overcome HIV Infection in the Kyrgyz Republic for 2017-2021
Moldova	PWID, MSM, FSW, prisoners	National Program of Prevention and Control of HIV/AIDS and STIs for 2016-2020
Tajikistan*	PWID, SW, prisoners, MSM[57]	National HIV program 2017 – 2020 - Areas of strategic activities
Ukraine	PWID and partners, MSM, SW and clients, prisoners[58]	National Targeted Social Program to Combat HIV/AIDS for 2014-2018
Uzbekistan	PWID, MSM, FSW	Strategic Program to Control HIV Infection in the Republic of Uzbekistan 2013-2017

[52] Migrants and services tailored to them were not included in the scope of these assessments.
[53] Though the plan does acknowledge MSM, FSW, and PWID as key populations, limited information is available regarding their packages of services; Prisoners are included as a vulnerable population.
[54] Service package outlined is combined with FSW.
[55] Youth and services tailored to them were not included in the scope of these assessments.
[56] Service package outlined is combined with MSM.
[57] No separate service package is defined for MSM, despite being identified as a key population.
[58] Prisoners are included as a vulnerable population.

Latin America and the Caribbean		
Bolivia*	MSM, FSW, TG	Multisectoral Strategic Plan for the National Response to HIV/AIDS/STIs
Dominican Republic	TG women, SW, prisoners[59]	National Strategic Plan 2015-2018
Ecuador*	MSM, FSW, TG	National Strategic Multisectoral Plan for HIV/AIDS
El Salvador*	MSM, FSW, TG, prisoners	National Strategic Plan for HIV/AIDS and STIs 2016-2020
Guatemala	MSM, TG women, FSW[60]	National Strategic Plan 2017-2021
Guyana	FSW, MSM[61]	National Strategic Plan (2013-2020), Most-at-risk-populations Guidelines and Standards for Non-Government Organizations (2012)
Haiti	FSW, MSM, prisoners[62]	Haiti National HIV Strategic for 2018-2023
Honduras*	Does not specify	National Strategic Plan 2015-2019 & National Response to HIV/AIDS
Panama*	MSM, SW, TG[63]	National Strategic Plan for HIV/AIDS 2014-2019
Paraguay*	MSM, FSW, TG, PWID[64]	National Strategic Plan for HIV, AIDS, and other STIs 2014-2018
Peru	MSM, TG women, SW, prisoners	National Multisectoral Plan to Control HIV and STDs 2015-2019
Middle East and North Africa		
Egypt*	MSM, PWID, FSW, prisoners[65]	National Strategic Framework 2015-2020
Iran*	PWID, FSW, prisoners[66]	National Strategic Plan 2015-2019

[59] National Strategic Plan also identifies socially vulnerable women living in bateyes and Haitian migrants.
[60] National Strategic Plan identifies these populations as "prioritized groups"; other populations identified are: PLHIV, HIV-TB co-infected individuals, pregnant women, and children born from HIV positive mothers.
[61] National Strategic Plan also includes loggers and miners; TG people are acknowledged in the plan, however, the data on this population is aggregated amongst SW and MSM.
[62] National Strategic Plan identifies these key populations; however, the packages designed are not key population specific, but a package of HIV services for all of the key populations.
[63] National Strategic Plan identifies these key populations; however, the packages designed are not key population specific, but a package of HIV services for all of the key populations.
[64] National Strategic Plan identifies these key populations; however, the packages designed are not key population specific, but a package of HIV services for all of the key populations.
[65] Other vulnerable populations identified: street children, labor migrants, refugees
[66] Other vulnerable populations identified: children and women

Jordan*	MSM, PWID, FSW, prisoners[67]	National Strategic Plan 2012-2016
Lebanon*	MSM, PWID, FSW[68]	Not Available
Morocco	MSM, FSW, PWID, prisoners[69]	National Strategic Plan 2017-2021 & Normes et Standards Guides
Sudan	MSM, SW	Sudan National HIV Updated Strategic Framework (2014-2016)
Tunisia	MSM, PWID, FSW, prisoners[70]	National Strategic Plan 2015-2018; 2014-2017 Monitoring and Evaluation Plan
Western and Central Africa		
Benin	FSW, MSM, PWID, prisoners[71]	Minimum Service Package for Key Populations in Benin, 2016
Burundi*	MSM, FSW, PWID	National Strategic Plan to Fight AIDS 2014-2017
Cameroon	FSW, MSM, PWID	National Strategic Plan to Fight Against HIV, AIDS, and STIs 2014-2017
Cape Verde*	MSM, SW, PWID	National Strategic Plan 2011-2015
Côte d'Ivoire*	MSM, FSW, PWUD[72], prisoners	National Strategic Plan 2016-2020 (service packages elaborated in PEPFAR and Global Fund documents)
Ghana*	FSW, MSM, PWID, prisoners	National Strategic Plan for MARPs 2011-2015, National HIV & AIDS Strategic Plan 2016-2020, The National Condom and Lubricant Strategy 2016-2020
Mali	FSW, MSM	National Strategic Framework for AIDS 2013-2017
Nigeria*	FSW, PWID, MSM	National HIV and AIDS Strategic Framework 2017-2021
Sierra Leone	MSM, PWID, FSW	Program Implementation Plan Global Fund HIV Grant Continuation 2018-2020
Togo	PWID, SW and their clients, MSM, prisoners	National Policy—Prevention, TCS of KP, 2013

[67] Prisoners identified as a vulnerable population; other vulnerable populations identified: migrants, orphans, and young women.
[68] Identified only in the Country Progress Report 2014
[69] Prisoners identified as a population who will benefit from targeted intervention with a limited geographical coverage.
[70] Prisoners identified as a priority group but not a key population.
[71] Identified as a "vulnerable population", but interventions similar to those for other identified KP
[72] Including PWID

Annex 3. Interventions Included in National Reference Documents in Countries Assessed

For most critical enablers in most countries, reference is only made to key populations as a generic term. In the below tables are listed only those critical enabler activities that refer specifically to that KP. Below the tables, the critical enablers that cover all KP are mentioned for each country where they are included in the national HIV strategic plan.

Table A3.1. Globally Defined Services for SW in Comparison with elements of the WHO Consolidated Guidelines, by region

	SW
WHO Guidance	
1. Comprehensive condom and lubricant programming	• 13 countries in Asia provide condoms for sex workers, and eight also provide lubricant. • 11 countries in EECA (exception: Kazakhstan) include provision of and access to condoms. However, lubricants were not included in six countries. • Ten countries in ESA include some sort of condom distribution in service packages for SW. Four of the countries include lubricant in distribution (Angola, Botswana, Lesotho and South Africa). Of note, four countries include female condoms (Kenya, Madagascar, South Africa and Uganda). • Nine countries in LAC include distribution of male condoms in their service packages for SW. Five countries include lubricant as well. Three countries (El Salvador, Guyana, and Haiti) offer female condoms and only El Salvador offers dental dams. • All seven countries in MENA include condom distribution to FSW as part of their package. Morocco is the only country to specifically include lubricant in their package. Sudan includes the provision of both male and female condoms. • Eight countries in WCA include condom and lubricant promotion and distribution in their service package for SW. Service packages in five countries are explicit in promoting and providing both female and male condoms.
2. Behavioral interventions	• 13 countries in Asia and Pacific provide targeted BCC and IEC materials for sex workers. • All 12 countries assessed in EECA include behavioral interventions, including: publication and distribution of IEC materials, peer education and counselling, and education sessions and trainings. • Six countries in ESA include BCC and IEC, and four countries include peer-to-peer methodologies (Angola, Botswana, Madagascar and South Africa). • All 11 countries in LAC include some sort of behavioral interventions (IEC/BCC) in their service packages for SW. Four countries indicate in the service package for SW a peer-to-peer model. • Three countries in MENA (Tunisia, Sudan, and Morocco) outline more comprehensive interventions (such as counseling, IEC, BCC, and health education); however, Egypt and Lebanon only outline education during outreach. • Seven countries in WCA include BCC and IEC materials for SW. Six countries also include peer education.
3. HIV testing and counseling (HTC)	• 13 countries in AP include HIV testing and counseling. • Ten countries in EECA include referral to and/or provision of HIV testing and counseling in their package of services for FSW. • Ten countries in ESA include HTC in service packages for SW. • Ten countries in LAC offer service packages for SW that includes HIV testing in some form. Ten countries (all but Guatemala) specify that they offer testing services. Haiti specifically includes community-level testing through peer

	educators; and both Guyana and Honduras specify that they offer rapid testing as part of the service package. • All seven countries in MENA include HTC in their packages for FSW. One country, Lebanon, also outlines community-based HTC. • Ten countries in WCA include HIV testing and counseling in their package of services for FSW. Community based testing is specifically outlined in three packages (Benin, Burundi, Cameroon).
4. HIV treatment and care	• 12 countries in Asia and Pacific include ART in their package of services for SW. • Nine countries in EECA include referral to HIV treatment and care as part of the FSW package of services. • Ten countries in ESA include HIV treatment and care in service packages for SW; Seychelles does not. • 11 countries in LAC include treatment and care in service packages for SW, at varying levels of detail. • All seven countries in MENA include HIV treatment and care (or referral to) as part of their package for FSW. Three countries (Sudan, Tunisia, and Egypt) include clinical monitoring of SW who are on ART. • Ten countries in WCA outline ART, although for Mali, provision or referral to ART is not explicit in the service package design.
5. Prevention and management of co-infections and other co-morbidities, including viral hepatitis, tuberculosis and mental health conditions	• 11 countries in AP include coordination for TB screening, diagnosis and referral for treatment. Four countries also provide information, diagnosis and referral for treatment for hepatitis B and C. • Four countries in EECA include provision of or referrals to hepatitis testing and treatment. Two counties, Moldova and Kyrgyz Republic, include some kind of mental health service, including access to a mental health professional. Seven countries in EECA also included TB services for FSW. • Nine countries in ESA include prevention and management of co-infections and other co-morbidities in service packages for SW. Six countries specify screening and treatment of TB in service packages. Two countries, Botswana and Mauritius, include specific psychosocial support services. Only one country, South Africa, specifies screening for, vaccination for and treatment of viral hepatitis. • Nine countries in LAC include prevention and management of co-infections and other co-morbidities in their service packages for SW (El Salvador and Guatemala do not). Six countries offer screening and/or treatment for TB, and four countries for hepatitis. Three countries (Haiti, Paraguay and Peru) include details about mental health services. • Three countries in MENA (Tunisia, Sudan, and Morocco) include hepatitis B and C, syphilis, and TB screening and treatment, as well as psychological support. Two countries (Egypt and Iran) only include psychological support. • Nine countries in WCA include coordination for TB screening, testing, diagnosis and referral for treatment. Benin, Ghana, and Cameroon include prevention, testing, and referral to treatment. Benin, Cameroon and Ghana service packages include vaccination against hepatitis B. Two countries (Benin and Nigeria) include mental health services.
6. Sexual and reproductive health interventions	• 13 countries in AP include STI screening, diagnosis, referral for treatment as part of the package for sex workers. • Ten countries in EECA include providing access or referrals to STI testing and treatment. Only one country included reproductive services, access to safe abortion, and contraception in their design (Moldova). • Ten countries in ESA included sexual and reproductive health intervention in service packages for SW. Six countries specify STI screening and treatment services. • Eight countries in LAC include sexual and reproductive health services in their service packages for SW. Four countries offer general STI screening and

	treatment (Bolivia, DR, Honduras, Guyana, Panama, Paraguay, and Peru). One country, Haiti, offers PMTCT. • Five countries in MENA include prevention and treatment, or referral to prevention and treatment, of STIs for FSW. One country, Sudan, also specifically mentioned linking FSW to reproductive health services as part of their package. • Eight countries in WCA include STI services including STI information, screening, diagnosis, and referral for treatment as part of the service package for SW. One country, Burundi, also specifically outlined PMTCT.
7. Supportive laws and policies	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. Except Thailand: refers to developing a model of collaboration in prevention created among policy makers, law makers, government staff, and key individuals in the community to reduce abuse and allow FSW to be treated as ordinary citizens. • EECA: Three countries specifically address law and policy improvements in their national reference documents: Kosovo pledges legal assistance for "those in need", the Kyrgyz Republic includes activities related to aligning national legislation with human rights and eliminating discriminatory law and policy; and Moldova includes activities to reduce barriers to services by supporting strategic court cases. Five countries specify law and policy interventions for PLHIV, but not specifically for SW: BiH, Georgia, Tajikistan, Ukraine and Uzbekistan. Armenia, Azerbaijan, Belarus and Kazakhstan do not include any provisions for this area. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific SW activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Haiti, Honduras, Panama. No specific SW activities mentioned in Paraguay. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Cameroon, Cape Verde, Cote d'Ivoire. Benin calls for advocacy for politico-administrative authorities, public security forces and health workers towards regulation of the sex industry; while Burundi includes a general statement on strengthening the protection of the rights of SW. No specific SW activities mentioned in other countries' designs.
8. Addressing stigma and discrimination	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. Except Thailand: Service providers trained on stigma and discrimination against FSW. • EECA: Five countries specifically address stigma and discrimination: Azerbaijan, Belarus, Kosovo, Kyrgyz Republic, and Ukraine. Five countries include provision for reducing stigma and discrimination for PLHIV/related to HIV, but not for SW-specific issues: Armenia, BiH, Georgia, Tajikistan, and Uzbekistan. Moldova includes general principles in its National Strategic Plan, which include non-discrimination and equal access; however, no specific provisions are made for activities related to reduction of stigma and discrimination. Kazakhstan does not explicitly include stigma and discrimination mitigating investments as part of its package. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific SW activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Panama. No specific SW activities mentioned in Paraguay, Guyana, Haiti or Peru. • MENA: No design elements for specific key populations – general elements set out in section below.

	• WCA: Not mentioned in designs in Benin, Burundi, Cameroon, Cape Verde, Cote d'Ivoire and Mali. No specific SW activities mentioned in other countries' designs.
9. Community empowerment	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: Community empowerment is included in four countries: Azerbaijan, Kosovo, the Kyrgyz Republic, and Moldova. One country, Tajikistan, includes community empowerment in its National Strategic Plan for PLHIV only, but not specifically for PLHIV from KP, nor for KP who are not HIV+. The remaining seven countries (Armenia, Belarus, BiH, Georgia, Kazakhstan, Ukraine, and Uzbekistan) do not include community empowerment explicitly in their National Strategic Plans. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Malawi, Mauritius, Seychelles, Uganda. No specific SW activities mentioned in South Africa, Tanzania or Kenya. • LAC: Not mentioned in designs in Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay, Peru. No specific MSM activities mentioned in Bolivia or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Benin, Cameroon, Cote d'Ivoire and Mali. The Burundi design includes strengthening collaboration with SW associations and building the skills of SW peer educators. Cape Verde mentions capacity building of peer educators. No specific SW activities mentioned in other countries' designs.
10. Addressing violence against KP	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: None of the 12 countries assessed included any explicit interventions to mitigate violence. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Seychelles, Uganda. No specific SW activities mentioned in Malawi, Mauritius, South Africa, Tanzania or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Haiti, Honduras, Panama, Paraguay. Guatemala has a specific indicator for number of sex workers who report suffering violence from state institutions (disaggregated by sex). No specific SW activities mentioned in Peru, DR or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Only Ghana and Togo mention activities, but not specific to SW.

Table A3.2. Globally Defined Services for MSM in Comparison with elements of the WHO Consolidated Guidelines, by region

MSM	
WHO Guidance	
1. Comprehensive condom and lubricant programming	• All 14 countries in AP include condom distribution in their designed packages for MSM. Nine out of the 14 countries also include lubricant. • 11 countries assessed in EECA (exception: Kazakhstan) include condoms and lubricant for MSM in their designed packages of services. • Of the eight countries that include MSM as a key population in ESA, seven (exception: Seychelles) include the provision of condoms and lubricant for MSM.

	• Nine out of the 11 countries assessed in LAC include condoms in their services for MSM. Six countries in this region also include provision of lubricant and two countries (Guyana and Haiti) in the region include female condoms. • Six countries in MENA include the distribution of condoms to MSM; however, only two (Morocco and Lebanon) include lubricants in their package of services. • In WCA, eight countries include condom and lubricant services for MSM.
2. Behavioral interventions	• All 14 countries in AP include both BCC and IEC materials, though topics of those interventions vary. • Ten countries in EECA included IEC materials for MSM and four of those countries include BCC in their package of services. • Out of the eight countries that include MSM as a key population in ESA, seven include IEC and some kind of BCC intention for MSM. • Six countries in LAC include distribution of IEC materials for MSM, and only one country (El Salvador) includes BCC as well. • Five of the six countries that include MSM as a key population in MENA include IEC and BCC in their packages of services for MSM (exception: Jordan). • Seven out of the ten countries assessed in WCA included both BCC and IEC interventions for MSM. Of note, six countries also include peer education for MSM.
3. HIV testing and counseling (HTC)	• All 14 countries in AP include HTC in their packages of services for MSM. • In EECA 11 countries (exception: Kazakhstan) include HTC for MSM. • In ESA, eight countries outline HTC for MSM (all of the countries that include MSM as a key population) and further, two countries (Madagascar and South Africa) specifically provide community-based testing for MSM. • Ten countries in LAC include HTC for MSM, and two countries (Haiti and Bolivia) include community-based testing. • Six countries in MENA provide HTC to MSM and one country (Lebanon) specifically includes community-based testing. • In WCA, ten countries outline HTC for MSM in their packages of services, and community-based testing is outlined in three countries' packages (Benin, Burundi, and Cameroon).
4. HIV treatment and care	• All 14 countries in AP outline ART for MSM in their packages of services. • Nine countries in EECA include ART in their packages for MSM. • In ESA, eight countries include ART for MSM. • Nine countries in LAC include ART for MSM and one country (El Salvador) specifically includes clinical monitoring. • Six countries in MENA include ART for MSM in their packages of services, and only one country (Tunisia) included clinical monitoring for MSM on ART. • Ten countries in WCA include ART for MSM in the design of their packages.
5. Prevention and management of co-infections and other co-morbidities, including viral hepatitis, tuberculosis and mental health conditions	• 12 countries in Asia and Pacific include TB services for MSM. Only four countries in this region (Afghanistan, Bangladesh, Nepal, and Vietnam) provide screening and treatment for hepatitis. No countries mention services for mental health conditions. • In EECA, six countries included TB services for MSM but only three countries in EECA (Kyrgyz Republic, Moldova, and Georgia) included hepatitis services for MSM. Two countries (Kyrgyz Republic and Kosovo) included mental health services. • Five countries in ESA specify screening and treatment of TB in service packages. Two countries (South Africa and Tanzania) include specific services for hepatitis. Only one country (Mauritius) includes specific mental health services.

	• Five countries in LAC include TB services in their package for MSM, three countries (Bolivia, Ecuador, and Peru) offer hepatitis services (and of note, only one country offers hepatitis vaccination: Bolivia, and only two countries (Haiti and Peru) mention mental health services for MSM. • Five countries in MENA include TB and hepatitis services for MSM, and only Morocco included mental health services. • Nine countries in WCA (exception: Mali) include TB services for MSM, and only three countries include any services for hepatitis prevention or screening. Only Benin and Nigeria included mental health services in their packages for MSM.
6. Sexual and reproductive health interventions	• All 14 countries in Asia and Pacific include STI prevention, screening, diagnosis, and referral to treatment in the packages of services for MSM. • Ten countries in EECA include STI testing and referrals in their package of services. • Eight of the countries in ESA include STI screening and treatment in their packages of services. • Only four out of the 11 countries assessed in LAC include STI testing and treatment specifically outlined in their packages of services for MSM. • Four countries in MENA include STI interventions in their packages of services for MSM. • Eight countries in WCA include STI screening and referral to treatment for MSM.
7. Supportive laws and policies	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: Four countries specifically address law and policy improvements in their national reference documents: Georgia specifies legal aid for MSM, Kosovo pledges legal assistance for "those in need", the Kyrgyz Republic includes activities related to aligning national legislation with human rights and eliminating discriminatory law and policy; and Moldova includes activities to reduce barriers to services by supporting strategic court cases. Four countries specify law and policy interventions for PLHIV, but not specifically for MSM: BiH, Tajikistan, Ukraine and Uzbekistan. Armenia, Azerbaijan, Belarus and Kazakhstan do not include any provisions for this area. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific MSM activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama. Peru includes: "Identify barriers to access prevention and promotion services in the MSM, gay and trans population, according to needs that may serve as an input for advocacy to implement public policies." No specific MSM activities mentioned in Paraguay. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Benin, Cameroon, Cape Verde, Cote d'Ivoire. Burundi includes a general statement on strengthening the protection of the rights of MSM. Mali includes legal support for MSM. No specific MSM activities mentioned for Ghana, Togo and Sierra Leone.
8. Addressing stigma and discrimination	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: Five countries specifically address stigma and discrimination: Azerbaijan, Belarus, Kosovo, Kyrgyz Republic, and Ukraine. Five countries include provision for reducing stigma and discrimination for PLHIV/related to HIV, but not for MSM-specific issues: Armenia, BiH, Georgia, Tajikistan, and Uzbekistan. Moldova includes general principles in its National Strategic Plan, which include non-discrimination and equal access; however, no

	specific provisions are made for activities related to reduction of stigma and discrimination. Kazakhstan does not explicitly include stigma and discrimination mitigating investments as part of its package. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific MSM activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Panama. No specific MSM activities mentioned in Paraguay, Guyana, Haiti or Peru. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Benin, Burundi, Cameroon, Cape Verde, Cote d'Ivoire or Mali. No specific MSM activities mentioned in other countries' designs. Togo design repeats previous section's activities for all KP.
9. Community empowerment	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. Except Thailand: supporting MSM, TG and MSW to participate in policy formulation and guidelines for AIDS. • EECA: Community empowerment is included in four countries: Azerbaijan, Kosovo, the Kyrgyz Republic, and Moldova. One country, Tajikistan, includes community empowerment in its National Strategic Plan for PLHIV only, but not specifically for PLHIV from KP, nor for KP who are not HIV+. The remaining seven countries (Armenia, Belarus, BiH, Georgia, Kazakhstan, Ukraine, and Uzbekistan) do not include community empowerment explicitly in their National Strategic Plans. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Malawi, Mauritius, Seychelles, Uganda. No specific MSM activities mentioned in South Africa, Tanzania or Kenya. • LAC: Not mentioned in designs in Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay. Peru calls for strengthening peer educators among MSM, gays and TG, promoting the incorporation of these peer educators "in other sectors of the state with the experience of the Ministry of Health". No specific MSM activities mentioned in Bolivia or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Cameroon, Cote d'Ivoire, Mali or Sierra Leone. The Benin and Burundi designs include strengthening collaboration with MSM associations and building the skills of MSM peer educators. Cape Verde mentions capacity building of peer educators. No specific MSM activities mentioned in other countries' designs.
10. Addressing violence against KP	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: None of the 12 countries assessed included any explicit interventions to mitigate violence. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Seychelles, Uganda. No specific MSM activities mentioned in Malawi, Mauritius, South Africa, Tanzania or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay. No specific MSM activities mentioned in Peru, DR or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Benin, Burundi, Cameroon, Cote d'Ivoire, Mali, Nigeria, Sierra Leone or Togo. No specific MSM activities mentioned in Ghana's design.

Table A3.3. Globally Defined Services for PWID in Comparison with elements of the WHO Consolidated Guidelines, by region

PWID	
WHO Guidance	
1. Comprehensive condom and lubricant programming	• All countries in Asia include condom promotion and provision, and six out of the 12 countries include lubricant. • All countries assessed in EECA include condom provision for PWID; however, only three of the 12 countries assessed included lubricant provision. One country in EECA (Uzbekistan) included provision of female condoms and only one country (Georgia) included provision for PWID partners. • While only six countries in ESA define PWID as a key population, only five out of the 12 total countries include provision of condoms for PWID. Two countries include distribution of female condoms (Mauritius and Uganda) and only one country has specifically mentioned the provision of lubricant (Mauritius). • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline condom provision for PWID. • Six of the seven countries in MENA identify PWID as a key population and also outline condom distribution, but only two countries (Lebanon and Morocco) include lubricant. • Nine of the ten countries in WCA include PWID as a key population and these nine outline condom provision for PWID; six of the countries in WCA also include lubricant provision for PWID.
2. Harm reduction interventions for substance use (in particular, needle and syringe programs (NSP) and opioid substitution therapy (OST))	• All 12 countries that identified PWID as a key population in the Asia Pacific region include harm reduction interventions in their service packages for PWID (Philippines and Sri Lanka do not). All 12 of these countries have included NSP specifically, and 11 of these countries included OST (Cambodia did not). Of note, Mongolia's inclusion of OST is on a pilot-basis. • All 12 countries assessed in the EECA region include NSP in their design of packages for PWID. All 12 countries have designed OST programming as well (though Georgia does not specify it in their designed package and Kazakhstan's OST program is a pilot). Five countries include overdose prevention in their package for PWID. • Four out of the six countries assessed in ESA include NSP and OST in their package of services for PWID. Only one country includes overdose prevention. • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline harm reduction services for PWID. • Six out of the seven countries in MENA included PWID as a key population and all six of those countries include NSP in their designed package. Only three of those countries include OST, however. Morocco was the only country in MENA to also include overdose prevention for PWID. • Only five countries in Western and Central Africa include NSP and OST in their services for PWID. Only one country (Ghana) includes overdose prevention and management.
3. Behavioral interventions	• All 14 countries assessed in Asia and Pacific include both BCC and IEC materials for PWID. • All 12 countries in EECA have included distribution of IEC materials for PWID in their designed packages. Six out of the 12 countries have explicitly stated that this includes BCC. • Four countries in Eastern and Southern Africa include BCC and IEC interventions for PWID.

	• Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline behavioral interventions for PWID. • Five countries assessed in MENA include both IEC and BCC for PWID in their packages. • Eight countries in Western and Central Africa include both IEC and BCC for PWID.
4. HIV testing and counseling (HTC)	• All 12 countries that included PWID as a key population in Asia Pacific included HTC for PWID. • All 12 countries assessed in EECA included (free of charge) HTC for PWID in their packages. All 12 of the countries also explicitly included (free of charge) rapid testing. Of note: Kazakhstan is the only country that did not indicate if this testing was free. • Six countries in Eastern and Southern Africa include HTC for PWID in their plan for PWID. • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline HTC for PWID. • Six countries in MENA included HTC for PWID and only one country (Lebanon) outlines community-based testing. • Nine of the countries assessed in WCA include HTC, and two countries (Benin and Burundi) specifically include community-based testing for PWID.
5. HIV treatment and care	• 12 countries in Asia provide ART to PWID. • Ten of the 12 countries assessed in EECA specifically include treatment for PWID living with HIV. • Only five countries in ESA include HTC in their designed package for PWID and three of those countries (Kenya, Madagascar, and Tanzania) include clinically monitoring for people on ART. • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline HIV treatment and care for PWID. • Six countries in MENA include ART for PWID and two of those countries (Tunisia and Egypt) also include clinical monitoring for PWID on ART. • Nine countries in WCA include ART for PWID. • One country (Cote d'Ivoire) specifically outlines clinical monitoring for PWID who are on ART.
6. Prevention and management of co-infections and other co-morbidities, including viral hepatitis, tuberculosis and mental health conditions	• Seven countries in Asia include TB services for PWID in their designed packages. Seven countries also include hepatitis screening and treatment, and only one country (Afghanistan) outlines psychological services for PWID. • Five countries in EECA include TB services in their package of services for PWID. Only three countries in EECA include hepatitis services in their packages for PWID, and only two countries (Belarus and Kosovo) outline any psychological support and services. • Five countries in ESA include TB services for PWID, and only two countries (Kenya and Tanzania) mention hepatitis screening for PWID. There is no mention of psychological services for PWID. • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline prevention and management of co-infections and other co-morbidities for PWID. • Four countries in MENA have outlined services in their package for PWID for both TB and hepatitis. Only one country (Morocco) included psychological support for PWID. • Eight countries in WCA have outlined TB services for PWID, and only two countries (Benin and Ghana) include hepatitis screening and vaccination. Benin and Nigeria are the only countries in WCA to outline psychological services.

7. Sexual and reproductive health interventions	• Ten countries in Asia and Pacific have included STI prevention and treatment for PWID. PMTCT is offered in Bangladesh and Philippines. • Nine countries in EECA include STI testing and treatment for PWID. Two countries (Moldova and Bosnia also offer reproductive services for women who inject drugs. • Three countries in ESA include STI services for PWID, and five countries in the region include sexual and reproductive services. • Only one country in LAC defined PWID as a key population (Paraguay) and it does not specifically outline sexual and reproductive health interventions for PWID. • Only two countries (Tunisia and Morocco) in MENA include STI testing and treatment; however, there is no mention of PMTCT or reproductive services for PWID. • Eight countries in WCA include STI services for PWID. Of note, two countries (Burundi and Cote d'Ivoire) include prevention and management of GBV.
8. Supportive laws and policies	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. Except India (includes ensuring that the provisions of the Narcotic Drugs & Psychotropic Substances Act (2014) that provide for management of drug dependence, access to opioid substitution and harm reduction result in service access) and Thailand (refers to Government, NGOs and PWID network advocating for laws and modifications to laws and policies to support harm reduction, reduce criminality of drug use and inconsistency of legal action, and support voluntary, standard and efficient treatment). • EECA: Four countries specifically address law and policy improvements in their national reference documents: Georgia specifies legal aid for PWID, Kosovo pledges legal assistance for "those in need", the Kyrgyz Republic includes activities related to aligning national legislation with human rights and eliminating discriminatory law and policy; and Moldova includes activities to reduce barriers to services by supporting strategic court cases. Four countries specify law and policy interventions for PLHIV, but not specifically for PWID: BiH, Tajikistan, Ukraine and Uzbekistan. Armenia, Azerbaijan, Belarus and Kazakhstan do not include any provisions for this area. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific PWID activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Burundi, Cameroon, Cape Verde, Cote d'Ivoire. Benin calls for organizing advocacy sessions for politico-administrative authorities. While Mali does not list PWID as a KP in its NSP, there is a provision for legal support to PWID. In addition to its overall KP activities related to laws and policies, Nigeria calls for a review of policies where available or development of policies to facilitate an enabling environment for implementing harm reduction packages for PWID. No specific PWID activities mentioned in other countries' designs.
9. Addressing stigma and discrimination	• AP: Not specifically mentioned in designs – elements in design for all KP set out below • EECA: Five countries specifically address stigma and discrimination: Azerbaijan, Belarus, Kosovo, Kyrgyz Republic, and Ukraine. Five countries include provision for reducing stigma and discrimination for PLHIV/related to HIV, but not for PWID/related to injection drug use: Armenia, BiH, Georgia, Tajikistan, and Uzbekistan. Moldova includes general principles in its National Strategic Plan, which include non-discrimination and equal

	access; however, no specific provisions are made for activities related to reduction of stigma and discrimination. Kazakhstan does not explicitly include stigma and discrimination mitigating investments as part of its package. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific PWID activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • MENA: No design elements for specific key populations – general elements set out in section below. Exception is Iran, where "at least 45% of the PWID receive standard training on HIV prevention method and correct attitude toward HIV focusing on stigma reduction, harm reduction and correct use of condom every year". • WCA: Not mentioned in designs in Benin, Burundi, Cameroon, Cape Verde, and Cote d'Ivoire. No specific PWID activities mentioned in other countries' designs.
10. Community empowerment	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: Community empowerment is included in four countries: Azerbaijan, Kosovo, the Kyrgyz Republic, and Moldova. One country, Tajikistan, includes community empowerment in its National Strategic Plan for PLHIV only, but not specifically for PLHIV from KP, nor for KP who are not HIV+. The remaining seven countries (Armenia, Belarus, BiH, Georgia, Kazakhstan, Ukraine, and Uzbekistan) do not include community empowerment explicitly in their National Strategic Plans. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Malawi, Mauritius, Seychelles, Uganda. No specific PWID activities mentioned in Kenya. South Africa (additional to general key population activities) calls for community awareness and advocacy programs for PWID. Tanzania's design (additional to general key populations activities) calls for establishment of peer support groups. • MENA: No design elements for specific key populations – general elements set out in section below. Exception is Morocco, where psycho-social support, reintegration and self-support actions for PWID are to be implemented in partnership with associations with advocacy to remove barriers to sustainable access to services. • WCA: Not mentioned in designs in Burundi, Cameroon, Cote d'Ivoire and Sierra Leone. The Benin and Cape Verde designs include building the skills of PWID peer educators. No specific PWID activities mentioned in other countries' designs.
11. Addressing violence against KP	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: None of the 12 countries assessed included any explicit interventions to mitigate violence • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Seychelles, Uganda. No specific PWID activities mentioned in Malawi, Mauritius, South Africa, Tanzania or Kenya. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: The service package for PWID in Côte d'Ivoire, includes the prevention and management of sexual violence based on gender (GBV). Ghana and Togo mention activities, but not specific to PWID.

Table A3.4. Globally Defined Services for Prisoners in Comparison with elements of the WHO Consolidated Guidelines

Prisoners	
WHO Guidance	
1. Comprehensive condom and lubricant programming	• Three countries in the AP region (Afghanistan, Sri Lanka, and Thailand) include condom promotion and distribution in their packages of services for prisoners. Lubricants were not included in any of the prisoner packages of services. • Seven countries in EECA include condoms; however, none of the countries in the region include lubricants. • In ESA, five countries (Mauritius, Madagascar, South Africa, Lesotho and Tanzania) include condom distribution programs in their outlined package, and two countries (Lesotho, Kenya) specifically include lubricants. • Only one country in LAC (Haiti) includes details about condom and lubricant distribution in service packages (which are not for only prisoners but for all key populations identified in the country). • Only one country in MENA (Iran) includes the distribution of condoms, and only in the conjugal rooms. • Four countries in WCA (Sierra Leone, Benin, Ghana, and Togo) include the provision of condoms and lubricant to prisoners. Of note, Togo provides both male and female condoms and also promotes the correct and systematic use of condoms and lubricant.
2. Harm reduction interventions for substance use (in particular, needle and syringe programs and opioid substitution therapy)	• One country in Asia (Afghanistan) explicitly includes NSP and OST for prisoners although they are offered at the discretion of prison authorities. Afghanistan also includes drug overdose management, and, of note, wound and abscess care related to injection drug use, and follow up of released prisoners. • In EECA only three countries (Armenia, Kyrgyz Republic, and Tajikistan) include NSP in their prisoner package of services. However, OST is included in seven of the EECA prisoner packages of services. Of note, Ukraine includes PEP for prisoners. • In ESA, Kenya includes NSP and OST for prisoners; Mauritius includes OST and Lesotho includes harm reduction for prisoners but no programmatic detail is provided. • None of the four countries in LAC that identify prisoners as a key population for HIV include harm reduction in service packages for prisoners. • Only one country in MENA (Iran) outlines OST for prisoner; however, they do not outline any other harm reduction services for this population. • One country in WCA (Ghana) provides very limited harm reduction interventions, including: bleach/decontamination for safer injection and tattooing, safe injection kits, OST, and drug detoxification.
Behavioral interventions	• Three countries in Asia (Afghanistan, Sri Lanka and Thailand) outline standard BCC and IEC materials that are provided to prisoners. Of note, peer education is also used to educate prisoners on HIV, STI and TB. • In EECA, six countries include IEC materials in their packages of services for prisoners, and one country (Georgia) includes BCC interventions for prisoners. • Three countries in ESA (Lesotho, Tanzania, and Madagascar) have outlined behavioral intervention activities with prisoners. Lesotho and Tanzania offer peer education programs, and Madagascar's interventions focus on education around human rights, GBV and disease prevention. • None of the countries in LAC have included any behavioral interventions in the packages of services for prisoners.

	• Three countries in MENA (Egypt, Iran, and Tunisia) include IEC, and Tunisia also includes BCC. • Four countries in WCA include IEC and BCC interventions for prisoners in their packages of services.
4. HIV testing and counseling (HTC)	• Three countries in Asia (Afghanistan, Sri Lanka and Thailand) include HTC in their packages for prisoners. • Ten countries in EECA also include HTC in their outlined services. • Four countries in ESA (Kenya, Malawi, Lesotho, Tanzania) include on-site HTC for prisoners; of note, Lesotho offers access to PEP. • Three countries in LAC (El Salvador, Haiti and Peru) include HTC in service packages for prisoners. El Salvador indicates HTC without further details, and Peru states access to universal care. • Three countries in MENA also include HTC for prisoners. • Six countries in WCA (Benin, Cote d'Ivoire, Cape Verde, Cameroon, Ghana, Sierra Leone) include HTC in their package of services for prisoners.
5. HIV treatment and care	• In one country in AP (Afghanistan), referrals for ART are provided and depending on the prison, ART is provided on-site. In Thailand, ART is initiated following the HTC campaigns that occur twice annually. • In EECA, HIV treatment within prisons is included in the design of HIV service packages for prisoners in 7 countries. Two more countries also include the referral to HIV treatment (Kosovo and Tajikistan). • Five countries in ESA (Kenya, Lesotho, South Africa, Tanzania, Uganda) provide HIV treatment and care. Lesotho provides on-site care in some facilities; all provide referrals. • Three countries in LAC (El Salvador, Haiti and Peru) include treatment and care in service packages for prisoners. Both El Salvador and Haiti specify ART, and Peru states access to universal care. • Three countries in MENA (Egypt, Iran, and Tunisia) include referral to ART for prisoners who are HIV positive. • Four countries in WCA (Benin, Cape Verde, Ghana, Togo) provide ART in prisons or referral to a health facility.
6. Prevention and management of co-infections and other co-morbidities, including viral hepatitis, tuberculosis and mental health conditions	• One country (Afghanistan) includes TB services; however, the range of services (i.e. testing, diagnosis, treatment, care) depends on the prison. Afghanistan also offers screening for hepatitis B and hepatitis C and provides the hepatitis B vaccination. • TB testing and treatment is included in the prisoner package of services in five countries in EECA. Hepatitis testing and treatment is included in three countries' packages (Uzbekistan, Georgia, and Kyrgyz Republic), though it is worth noting that the Kosovo package for prisoners includes hepatitis prevention education. • Three countries in ESA (Lesotho, Tanzania, Madagascar) provide screening and treatment for TB. Only Tanzania offers screening and treatment for viral hepatitis and injection site care. • Three countries in LAC (El Salvador, Haiti and Peru) include prevention and management of co-infections and other co-morbidities in service packages for prisoners. Both El Salvador and Haiti include specific activities for TB screening. • In MENA, only one country (Tunisia) outlines referral to TB and drug treatment services. • Three countries in WCA (Benin, Ghana, and Togo) include prevention, diagnosis and treatment of opportunistic infections including TB, viral hepatitis, including vaccination against hepatitis B.
7. Sexual and reproductive health interventions	• Two countries in Asia (Afghanistan and Thailand) include STI information, prevention and treatment of STIs at prison health stations. Of note, in Indonesia, the national strategy describes activities to expand STI testing within prisons.

	• Six countries in EECA outline STI testing and treatment in the packages of services for prisoners. Reproductive health interventions are not outlined in any of the packages for prisoners; however, Georgia does include programs to prevent physical and sexual violence for prisoners. • Four countries in ESA (Kenya, Lesotho, Tanzania, and Uganda) offer access to STI testing and treatment. Lesotho also offers access to PMTCT services for pregnant and nursing mothers. • Three countries in LAC (El Salvador, Haiti and Peru) include sexual and reproductive health services in the service packages for prisoners. Haiti also includes family planning, PMTCT, risk reduction counseling and cervical cancer screening - but Haiti's service package is not specific to prisoners, but to all KP, so it is unclear if these activities are carried out in prisons. Peru states access to universal care. • In MENA none of the countries include any specific interventions related to prevention, screening, or treatment of STIs for prisoners. • Four countries in WCA include STI screening, testing, diagnosis and treatment for prisoners.
7. Supportive laws and policies	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: Four countries specifically address law and policy improvements in their national reference documents: Georgia specifies legal aid for PWID, Kosovo pledges legal assistance for "those in need", the Kyrgyz Republic includes activities related to aligning national legislation with human rights and eliminating discriminatory law and policy; and Moldova includes activities to reduce barriers to services by supporting strategic court cases. Four countries specify law and policy interventions for PLHIV, but not specifically for prisoners: BiH, Tajikistan, Ukraine and Uzbekistan. Armenia, Azerbaijan, Belarus and Kazakhstan do not include any provisions for this area. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific prisoner activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Haiti, Honduras, Panama. No specific prison activities mentioned in Paraguay. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Burundi or Cote d'Ivoire. Benin calls for advocacy towards penitentiary authorities. No specific prisoner-related activities mentioned in other countries' designs.
8. Addressing stigma and discrimination	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. Except Thailand: Communication/public relations for acceptance, attitude change among health staff, prison staff, police and community leaders such as community development workers and model communities. • EECA: Five countries specifically address stigma and discrimination: Azerbaijan, Belarus, Kosovo, Kyrgyz Republic, and Ukraine. Five countries include provision for reducing stigma and discrimination for PLHIV/related to HIV, but not for prisoner-specific issues: Armenia, BiH, Georgia, Tajikistan, and Uzbekistan. Moldova includes general principles in its National Strategic Plan, which include non-discrimination and equal access; however, no specific provisions are made for activities related to reduction of stigma and discrimination. Kazakhstan does not explicitly include stigma and discrimination mitigating investments as part of its package. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific prisoner activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya.

	• LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Panama. No specific prison activities mentioned in Paraguay, Guyana, Haiti or Peru. • MENA: No design elements for specific key populations – general elements set out in section below. Exception is Iran: "At least 60% of the prisoners with more than 10 days stay in prison, receive standard training on prevention methods and correct attitude toward HIV focusing on stigma reduction [...] At least 20% of the prisoners' spouse receive standard training on prevention methods and correct attitude toward HIV focusing on stigma reduction." • WCA: Not mentioned in designs in Benin, Burundi, Cameroon, Cape Verde, Cote d'Ivoire. No specific prisoner-related activities mentioned in other countries' designs.
9. Community empowerment	• AP: Not specifically mentioned in designs – elements in design for all KP set out below • EECA: Community empowerment is included in four countries: Azerbaijan, Kosovo, the Kyrgyz Republic, and Moldova. One country, Tajikistan, includes community empowerment in its National Strategic Plan for PLHIV only, but not specifically for PLHIV from KP, nor for KP who are not HIV+. The remaining seven countries (Armenia, Belarus, BiH, Georgia, Kazakhstan, Ukraine, and Uzbekistan) do not include community empowerment explicitly in their National Strategic Plans. • ESA: Not mentioned in designs in Angola, Lesotho, Madagascar, Malawi, Mauritius, Seychelles, Uganda. No specific prisoner activities mentioned in South Africa, Tanzania or Kenya. • LAC: Not mentioned in designs in Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay, Peru. No specific MSM activities mentioned in Bolivia or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Not mentioned in designs in Burundi, Cameroon, Cote d'Ivoire and Sierra Leone. The Benin and Cape Verde designs includes building the skills of PWID peer educators. No specific prisoner-related activities mentioned in other countries' designs.
10.Addresing violence against KP	• AP: Not specifically mentioned in designs – elements in design for all KP set out below. • EECA: None of the 12 countries assessed included any explicit interventions to mitigate violence. • ESA: Not mentioned in designs in Angola, Botswana, Lesotho, Madagascar, Seychelles, Uganda. No specific prisoner activities mentioned in Tanzania, South Africa, Mauritius, Malawi or Kenya. • LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay. No specific MSM activities mentioned in Peru, DR or Guyana. • MENA: No design elements for specific key populations – general elements set out in section below. • WCA: Ghana and Togo mention activities, but not specific to prisoners.

It should also be noted that PrEP for prisoners was mentioned in plans in Kenya and South Africa.

Table A3.5. Globally Defined Services for TG in Comparison with elements of the WHO Consolidated Guidelines

Transgender People	
WHO Guidance	
1. Comprehensive condom and lubricant programming	• Ten countries in Asia and Pacific include condom promotion and distribution in their packages for TG, and nine of these counties also include lubricant. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their packages of services are combined with other key populations identified. • In LAC, seven of the countries include condom provision, and three of these countries (Dominican Republic, Ecuador, and El Salvador) also include lubricant. • None of the countries in MENA or WCA include TG as a key population for HIV.
2. Behavioral interventions	• Ten countries in AP provide both BCC and IEC materials. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their packages of services are combined with other key populations identified. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • In LAC, five countries (Bolivia, Ecuador, Honduras, Panama, and Paraguay) include IEC. Four countries indicate in the service package for TG, a peer-to-peer model, which can be promoters, peer outreach teams, educators, or club-like in nature. Three countries (DR, El Salvador, and Paraguay) offer BCC, with different levels of detail. • None of the countries in MENA or WCA include TG as a key population for HIV.
3. HIV testing and counseling (HTC)	• All 10 countries in AP include HTC in the TG package. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their packages of services are combined with other key populations identified. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • All eight countries in LAC include HTC in TG package. • None of the countries in \ MENA or WCA include TG as a key population for HIV.
4. HIV treatment and care	• Ten countries in AP provide ART to TG. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their package of services are combined with other key populations identified. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • Eight countries in LAC specify ART as part of the service package for TG. • None of the countries in MENA or WCA include TG as a key population for HIV.
5. Prevention and management of co-infections and other	• Ten countries in AP include TB screening, diagnosis and referral for treatment. Two countries (Bangladesh and Nepal) also provide diagnosis

co-morbidities, including viral hepatitis, tuberculosis and mental health conditions	and referral for treatment for hepatitis B and C. There was no mention of mental health services in any of the service packages for TG in AP. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their package of services are combined with other key populations identified. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • Three countries in LAC include screening and/or treatment for TB and hepatitis (DR, Ecuador and Peru). Two countries (Paraguay and Peru) include details about mental health services. • None of the countries in MENA or WCA include TG as a key population for HIV.
6. Sexual and reproductive health interventions	• Ten countries in Asia and Pacific include STI prevention and treatment services including STI screening, diagnosis, referral for treatment as part of the HIV package for TG. Two countries (Bangladesh and India) include PMTCT. • In EECA, two countries (Kyrgyz Republic and Georgia) identify TG as a key population for HIV; however, their package of services are combined with other key populations identified. • South Africa is the only country in ESA to identify TG as a key population for HIV in its national plan; however, TG package of services is outlined within the MSM package of services. • Six countries in LAC outline specific STI service in their packages for TG. One country (El Salvador) includes reproductive health services. • None of the countries in MENA or WCA include TG as a key population for HIV.
7. Supportive laws and policies	• LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Haiti, Honduras, Panama. Peru includes: “Identify barriers to access prevention and promotion services in the MSM, gay and trans population, according to needs that may serve as an input for advocacy to implement public policies.” No specific TG activities mentioned in Paraguay. • Not mentioned in NSPs in other countries.
8. Addressing stigma and discrimination	• LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Panama. No specific TG activities mentioned in Paraguay, Guyana, Haiti or Peru. • Not mentioned in NSPs in other countries.
9. Community empowerment	• LAC: Not mentioned in designs in Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay. Peru calls for strengthening peer educators among MSM, gays and TG, promoting the incorporation of these peer educators “in other sectors of the state with the experience of the Ministry of Health”. No specific TG activities mentioned in Bolivia or Guyana. • Not mentioned in NSPs in other countries.
10. Addressing violence against KP	• LAC: Not mentioned in designs in Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Panama, Paraguay. No specific TG activities mentioned in Peru, DR or Guyana. • Not mentioned in NSPs in other countries.

Critical enabler activities for "all KP"

The following apply to all key populations in the following countries, related to *laws and policies*:

- Bangladesh: Specific strategies will be implemented with the Human Rights Commission to advocate for legal and policy reforms including striving towards reform of the current legal framework which has adverse effects on interventions for all key population.
- Ghana: Legal protections for KP' rights to access services; advocacy to lawmakers on finalizing the Ghana HIV and AIDS Bill; review legislation that discriminates against and enacting laws that reduce discrimination against KP; technical and material assistance for Law Enforcement Agencies to ensure respect of rights of KP and protection from harassment and abuse by the general public and by the Services themselves.
- Kenya: improve National and County legal and policy environment for protection of key populations and PLHIV; improve access to legal and social justice and protection from stigma and discrimination in the public and private sector; increase protection of human rights and improved access to justice for PLHIV, key populations, and other priority groups including women, girls and boys; sensitize law and policy makers on the need to enact human rights sensitive laws and policies and the implications of a non-responsive legal and policy environment for key and priority populations for their HIV response; implement commitments of the Global Fund Principles on human rights and the SDGs, national laws and Identify remaining gaps and track improvement /changes; lobby for county legislation and policy on HIV related stigma and discrimination and gender based violence; facilitate decentralization & sensitization of communities about the HIV Tribunal in order to facilitate access to justice and redress in cases of HIV-related discrimination or other legal matters.
- Iran: undertakes to amend the law in relation to expulsion of people living with HIV or prevention of their entrance to the country.
- Malawi: social and legal protections for persons living with HIV and AIDS and key and vulnerable populations, including advocating for legal reform; advocacy for the adoption of the Rights-based HIV Bill; review of penal code; building capacity around legal literacy and access to justice.
- Mali: Evaluation of cases of violations of the rights of KP; provision of legal support to KP.
- Mauritius: increase access to legal aid; reduce legal barriers to access HIV prevention, treatment, and care; identify problematic laws and review/repeal them for harmonization with international commitments; review existing laws and policies to ensure that they do not encourage stigma and discrimination or constitute a barrier to HIV prevention, treatment, care & support; conduct 'Know your rights' literacy programs.
- Mongolia: Revision of existing laws pertaining to PLHIV and KP; establishing and strengthening a supportive legislative and public policy environment for HIV and STI prevention and control; advocacy among policy makers and legislators to support the creation of a more supportive legal environment to protect the human rights of KP; legal proposals will be developed to strengthen the labor rights of PLHIV".
- Nigeria: Develop national policies, regulations, protocols and laws regarding provision and access to target populations to friendly HIV prevention services; support organizations to advocate for the revision and repeal of laws, policies and programs that hinder access of key and vulnerable population to HIV prevention services; promote access to justice for KP through use of community-

based and institutionalized mechanisms; educate PLHIV about HIV and AIDS Anti- discrimination Act and how to seek justice.

- Papua New Guinea: Advocacy at provincial and local level to strengthen the supportive environment for service access – with a particular focus on ensuring people from key populations have access to services.
- Paraguay: Elimination of restrictive laws and policies with specific reference to compulsory HIV testing of individuals obtaining country registration, applying for scholarships, or participating in international exchange programs; sexual education policy exists, the current framework limits the access of adolescents and young people to sex education; and establish a system to monitor compliance with existing and new policies related to HIV that would improve the enabling environment for interventions designed for key populations, especially policies related to stigma and discrimination.
- South Africa: "eliminate […] punitive laws that burden key and vulnerable populations; justice for persons facing stigma, discrimination, legal injustices; expand and strengthen access to legal support, including legal literacy and access to legal aid; improve legal literacy about human rights and laws relevant to HIV and TB; sensitize law-makers and law enforcement agents."
- Sri Lanka: Review development, implementation and adaptation of strategic policy frameworks, policies, legislation/regulations that create the environment for an effective response to HIV, and partnerships that contribute to a better response. Review, and where necessary, revise policies and programmes to reduce gender-based inequities, and ensure human rights protection for KP
- Tanzania: provide legal advice and support; ensure laws protecting the rights of PLHIV; improve the legal and policy environment to allow access to health services for key populations and "enforce supportive policies".
- Thailand: Government, NGOs and PWID network advocates for laws and modifications to laws and policies to support harm reduction, reduce criminality of drug use and inconsistency of legal action, and support voluntary, standard and efficient treatment; All legal and policy barriers as regards comprehensive prevention and care are identified and revisions proposed; Laws and policies in support of essential HIV prevention and care services are effectively implemented.
- Togo: Advocacy for rights of KP and against GBV, and for an environment conducive to support of PLHIV and KP including advocacy for the adoption of a legal framework favorable to prevention and care of KP.
- Viet Nam: Review, revise, and supplement supportive regulations and policies in the area of social protection.

The following apply to all key populations in the following countries related to *stigma and discrimination*:

- Afghanistan: Support and protection of a legal and policy environment free from stigma and discrimination.
- Bangladesh: Stigma and discrimination will be reduced through an enabling environment and advocacy; Enhancing accurate knowledge in the general population will reduce stigma and discrimination.
- Cambodia: Ensuring that anti-discrimination policies for HIV are included as part of the Labor law.
- Egypt: plans campaigns in mass media and among college students and training for health care personnel to reduce stigma and discrimination.

- Ghana: Partner with the media to ensure visibility of critical issues including ”Know Your Status” campaign and reducing stigma and discrimination against KP campaign; engage with traditional authorities and religious leaders to reduce HIV and AIDS stigma and discrimination; reduce stigma and discrimination in health settings; involve PLHIV in anti-stigma and discrimination activities.
- Guyana: Decrease stigma and discrimination across all sectors; decrease misconceptions and discriminatory behaviors; improved support for community including faith based/workplace-based education and advocacy regarding human rights of MSM, SW transgender people, PLHIV, and other targeted populations.
- Haiti: 100% of PLHIV, MSM, SW receive legal support for discrimination or stigmatization; advocacy for adoption of codes of conduct and ethics in the workplace (nursing staff, education, manufacturing enterprises in the free zones and industrial enterprises); sensitize communities and constituted bodies (parliamentarians, judges, leaders) in the promotion and protection of human rights; train health service providers on non-discrimination, confidentiality, informed consent, partner notification and HIV-related medical ethics; carry out awareness-raising actions on legal rights and knowledge of the laws, rights and duties of PLHIV and stigmatized and discriminated populations because of their sexual orientation.
- India: Mechanism for legal protection in each district for PLHIV, children affected by HIV and key populations; Supporting an enabling environment including moving towards zero stigma and discrimination; Sensitization and training programmes for healthcare professionals will be carried out. Advocacy will be carried out to make such training an integral part of the medical curriculum.
- Indonesia: Implement HIV and STI prevention campaign to the public in the form of mass media campaigns to eliminate stigma and discrimination.
- Kenya: implement stigma reduction campaigns; sensitize and engage communities and leaders such as religious leaders and elders on key populations and HIV to reduce stigma and increase service uptake; use human rights approach to assist programs to pursue zero tolerance to stigma and discrimination; deploy BCC interventions at community level to address stigma and cultural barriers; reduce self-reported stigma and discrimination related to HIV and AIDS by 50%; facilitate county and community engagement forums to reduce stigma and discrimination; support routine National survey to determine the levels of stigma and discrimination at national and county level; sensitize health care workers to reduce stigmatizing attitudes in healthcare settings.
- Malawi: reduce discrimination in access to services and increase capacity training to prevent unfair discrimination.
- Mauritius: challenge discrimination against groups of people who are marginalized, including people with disabilities, orphans, refugees, asylum seekers, foreign migrants, sex workers, men-who-have-sex-with-men and LGBTI, people who inject drugs and older persons; "support socioeconomic empowerment of key populations in the fight against stigma and discrimination to 'reintegrate key populations into the social fabric of society'".
- Morocco: plans the establishment of an observatory to document stigma and discrimination against PLHIV and key populations.
- Mongolia: The reduction of stigma, discrimination and the creation of supportive environments are integrated into KP interventions; stigma, discrimination and human rights violations will be part of broader needs assessments among KP; Special attention will be given to attitudes among health care and law enforcement staff.

- Nigeria: Strengthen interventions targeted at reducing stigma and discrimination against PLHIV, vulnerable and key populations; advocate for health care institutions to institute punitive measures for health care providers who stigmatize PLHIV; educate PLHIV of existing support mechanisms to address stigma and discrimination; conduct awareness and sensitization at community level for prevention of HIV stigma and discrimination.
- Pakistan: Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination; deliver HTC services in a non-judgmental and non-stigmatizing way.
- Papua New Guinea: Develop, promote and monitor a set of standards of care for health workers to reduce stigma and discrimination experienced by people from key populations; Healthcare, police, justice, welfare and other services that can be accessed by the people who need them without stigma and discrimination.
- Peru: Develop differentiated care protocols to meet the needs of gay, trans and sex workers and women living with HIV in the health system services; introduce the use of visible information in health facilities at all levels that expressly indicate the rights of all people to be treated with quality, regardless of their sexual orientation and gender identity; improve competencies and raise awareness among medical, auxiliary, administrative and managerial personnel of health facilities on issues related to STIs, HIV, human rights with emphasis on gender identity and sexual diversity; design and implement strategies for equal access for gays, transgender people, sex workers and women living with HIV; mapping and disseminating the channels for claiming rights to access education and health services for people with HIV, key and vulnerable populations with the support of community organizations; incorporate in the existing working groups advocacy with authorities and decision makers to eliminate barriers to access to health and education for people with HIV, key and vulnerable populations; carry out continuous measurements to assess the situation of stigma and discrimination against people with HIV, key and vulnerable populations in health services and educational institutions.
- Sierra Leone: For all KP: "PLHIV, EVDS and Key Populations at most risk of HIV that are empowered and participating effectively in advocacy and program interventions to eliminate stigma and discrimination increased from 2015 level to twice that level by 2020".
- South Africa: “eliminate stigma and discrimination that burden key and vulnerable populations”; “reduce stigma through community education”; “develop community-centered social mobilization strategy with a specific focus on stigma”.
- Sudan: seeks to establish enabling legal environment that protect the health, education, labor, and social rights of PLHIV and supports effective prevention among key populations by ensuring their right to information and access to health services.
- Tanzania: “reducing stigma and discrimination and addressing barriers to HIV and health services” and “interventions to reduce stigma and discrimination”.
- Thailand: Increased awareness of adverse effects of stigma, discrimination and human rights violations on HIV prevention and care among communities and service providers; Training and sensitization program will be conducted for all providers to address stigma and discrimination; Strategies are developed to ensure human rights protection, gender sensitivity and reduced stigma and discrimination in HIV prevention services for the general public.

The following apply to all key populations in the following countries related to *community empowerment*:

- Bangladesh: Community system strengthening will occur through capacity development across key areas including leadership and management, advocacy and service delivery.
- Bolivia: Develop innovative strategies for the prevention of HIV in the highest risk group with the participation of the population itself through the promotion of Universal Access Committees for gay, bisexual, transgender, sex workers and other populations according to the context of the epidemic.
- Ghana: Identify and develop effective partnerships with community level actors (CBOs, NGOs, and FBOs, spearheading behavior change interventions for KP; support meaningful involvement of PLHIV in the national response.
- India: The vision is one where all communities reach a level of empowerment to protect themselves against HIV and access HIV-health services.
- Indonesia: Enhancing community empowerment in the prevention of HIV and AIDS through national, regional and global cooperation in legal, organizational, financing, healthcare facilities and human resources.
- Kenya: empower communities and workplaces to ensure improved capacity and capability to take charge of their health and strengthen community-based intervention e.g. psychosocial support groups, peer support.
- Mongolia: Empower KP through increased knowledge and skills for self-protection of their human rights.
- Morocco: Mobilization of health actors, civil society, human rights institutions and opinion leaders to reduce barriers to services.
- Nigeria: Improve community participation, support and uptake of HIV prevention services through engagement of existing and new community structures; strengthen community structures for provision of equitable HIV prevention interventions; build linkages and partnerships between PLHIV networks, key populations, community-based organizations, and other community actors, and strengthening the coordination mechanisms for optimal impact; build the knowledge and capacity of community actors, service providers, and CBOs, and support them technically to function effectively in HIV prevention, treatment and care services.
- Pakistan: Rapidly scale up community-led and community-based prevention programmes.
- Papua New Guinea: Develop local community participation and complaint mechanisms in health service.
- South Africa: community empowerment and social mobilization, use of formal/informal peer networks to create demand; support key and vulnerable populations social capital by encouraging community networks that include advocacy agendas for equal health and human rights.
- Sri Lanka: Provide organizational and technical support to community-based organizations of marginalized groups and young people, so that they can contribute to the national response and advocate for their needs.
- Tanzania: “empowering the community, including ownership and leadership”.
- Thailand: See individual KP organization inclusion strategies in the table below.

- Togo: Encourage the establishment of organizations of KP; establish a national coordination system involving community organizations recipients; take into account KP' specific needs in the development of interventions targeting KP.
- Viet Nam: Mobilize faith-based organizations, social and political organizations, non-governmental organizations, enterprises, professional associations and PLHIV networks to participate in HIV/AIDS prevention and control with a focus given to promote their involvement.

The following apply to all key populations in the following countries related to *violence*:

- Afghanistan: Strengthening the health system's response to effectively address gender-based violence; Assess knowledge, attitude and practices of health professionals related to case management of people experiencing GBV.
- Bangladesh: Address gender-based violence, stigma, discrimination and other barriers to service access.
- Dominican Republic: Establish systems to register and report acts of violence motivated by hatred of vulnerable groups for reasons of gender, sexual identity, sex work, drug use and migrant status; design and implement an inter-institutional agreement to encourage non-violence to vulnerable groups based on gender, sexual identity, sex work, drug use and migrant status, through the implementation of a guide or protocol of action of the military bodies and national police and the continuous training of their personnel; educate police personnel, detection centers, judges and other persons of the sector security to sensitize them to nonviolence to vulnerable groups for reasons of gender, sexual identity, sex work, drug use and migrant status.
- Ghana: Work with stakeholders to address GBV and for PLHIV, create an enabling environment for justice for survivors of sexual violence.
- India: Promoting messages against intimate partner violence; Implemented stricter laws dealing with harassment, molestation and rape, as well as increased legal protection for women in the workplace.
- Kenya: reduce level of sexual and gender-based violence for PLHIV, key populations, women, boys and men by 50%; implement gender based violence prevention and response programs; address the issue of violence against key populations through appropriate crisis response mechanisms; community engagement to addresses social-cultural issues that perpetuate GBV.
- Malawi: patient intake at appropriate healthcare services to include screening questions to identify GBV survivors, and training and sensitization for healthcare providers to include content on appropriate management of GBV survivors.
- Mauritius: eliminate gender inequalities and gender-based abuse and violence.
- Mongolia: sensitizing local police to support HIV prevention services and stop harassment of SW and drug users; Special attention will be given to attitudes among law enforcement staff.
- Papua New Guinea: Develop initiatives for ongoing pre- and in-service training of police to reduce violence against people from key populations and increase support; Develop guidance materials to ensure key population access to GBV services; Ensure availability of PEP, emergency contraception and STI treatment in all GBV services.

- Peru: Incorporate contents of prevention of violence against key populations and respect for diversity in the curricula of the training schools of the Armed Forces, PNP, INPE and security bodies and of local governments and establish incentives for compliance with standards in training schools.
- South Africa: carry out violence screenings as essential care; increase access to provision of services for all survivors of sexual and gender-based violence" including 24-hour GBV command center; provide support for survivors of sexual assault.
- Sudan: seeks to establish a legal environment that shows zero tolerance for gender-based violence.
- Tanzania: provide gender-based violence prevention and support; address gender inequality and violence.
- Thailand: Model of collaboration in prevention created among policy makers, law makers, government staff, and key individuals in the community to reduce abuse and allow FSW to be treated as ordinary citizens.
- Togo: Advocacy against GBV across all KP.

ANNEX 4. UNIQUE IDENTIFICATION CODE SYSTEMS IN COUNTRIES ASSESSED

For most critical enablers in most countries, reference is only made to "key populations" as a generic term. In the below tables are listed only those critical enabler activities that refer specifically to that KP. Below the tables, the critical enablers that cover all KP are mentioned for each country where they are included in the NSP.

Table A4. Use of Unique Identifier Codes (UIC)
0: No data/evidence of UIC found;
1: Monitoring contacts, which disallows de-duplicated reporting;
2: Partially using UIC, which disallows de-duplicated reporting. This includes scenarios where UIC are used in some regions of the country or different UIC are used in the country but not harmonized;
3: Nationally using UIC, which allows de-duplicated reporting. This includes the scenario where different UIC are used but harmonized.

Country	Score	Notes
Afghanistan	2	Each of the four local NGOs/SR (one for each province of the country) has their own unique identifier system in place. There is currently a pilot of a national unique identifier system known as Syrex.
Angola	2	A UIC is used by PEPFAR-funded projects but not yet by GF-funded SR.
Armenia	2	UIC, which allows for de-duplication, for MSM, PWID, and FSW; however, this is not used at the national level, only unique clients by the PR. Coding of the UIC is different for each KP.
Belarus	2	UIC, which allows for de-duplication, is used; currently used at individual NGOs and health centers and there is no unified patient tracking systems between service providers.
Benin	2	There is a clear monitoring system in place and standard tools have been developed, but they are not harmonized across all programs targeting key populations. The country set up various coding systems for key populations programs; however, they are not generated in the same manner and not all of them are actually identifying codes.
Cameroon	2	Global Fund and PEPFAR-funded service providers now use the same UIC codes. There is no consistent UIC between community-based prevention and linkage services and the medical system, making it difficult to measure retention in care by key populations beyond the key populations served by PEPFAR.
Dominican Republic	2	A new integrated registration system (UIC) has been launched for new users that will be in principle shared by all stakeholders.
Georgia	3	UIC, which allows for de-duplication, used for all KP. There are several UIC used across all the data collection tools; however, linkage among databases is possible.
Guatemala	2	Two programs use their own registration system and do not merge data. National UIC is planned.
Guyana	2	UIC is universally implemented to monitor the uptake of prevention and HIV testing services among community organizations, but 2 different codes are used.

Haiti	2	A standardized UIC is used by most agencies delivering HIV prevention and testing services. It was not determined that this UIC was applied across all countrywide prevention programming.
Indonesia	3	The UIC seems to be widely used across prevention services, and for tracking the successful referral of people from KP to HIV testing services. However, there are many issues with its use. An ART Patient ID and a National ID Number is also used.
Kenya	2	At least 9 UIC currently in use. A single, national 29-character UIC has been proposed but faces opposition. One CDC-supported PWID services implementer is using delinked fingerprints as a UIC.
Kosovo	3	UIC for MSM, FSW PWID, which allows for de-duplication of cases. No linkages to the ARV database (prevention & testing only)
Kyrgyz Republic	2	UIC, which allows for de-duplication, only used in GF funded programs
Madagascar	1	Client code used for outreach but not easy to de-duplicate[73].
Malawi	2	Only 1 of 4 SR visited was using a UIC, but the PR is planning to use the LINKAGES-developed UIC with all SR.
Mali	1	Each local non-governmental partner uses its own data collection system, which is not unified at national level. Local stakeholders have agreed to implement a UIC from 2018 onwards.
Moldova	3	UIC for all KP, which allows for de-duplication of cases. No linkages to the ARV database (prevention & testing only)
Morocco	3	The UIC in place is limited to prevention services
Nepal	3	A unique identifier system exists for MSM, FSW and TG.
Pakistan	3	For PWID, alphanumeric unique identifiers are no longer used, as this form of unique identifier has been replaced by the biometric identifier. Unique identifiers still exist for MSM.
Papua New Guinea	3	National Unique Identifier Code (NUIC) for all key populations was introduced in 2013 and it is now possible to track the pattern of reach for individuals over time rather than just measure occasions of service. Not currently used to track clinical care/ART access.
Peru	2	Each stakeholder uses their own registration system, and registered entries, which in some cases are still done manually, are not verified for duplication.
Philippines	3	Consistent use of the UIC across the continuum of prevention, treatment, care and support.
Sierra Leone	2	A UIC has been partially implemented to improve monitoring of key populations and link them to other services for HIV; however, the code does not adhere to international best practice guidelines and may need some adjustment to truly prevent duplication and improve quality of care.

[73] The Country Report notes that in Madagascar's prioritized above-allocation request 2018-2020, funds are earmarked for introducing a unique identifier code to track outreach and HIV testing activities and ensure more confidentiality for key populations. The country plans on recording fingerprints via smartphones and linking these to the UIC.

South Africa	2	Several UIC are used by different implementers.
Sudan	0	In-country assessment confirmed that there is no UIC in place for any of the key populations
Togo	2	A UIC was introduced by USAID-financed programs and has been adopted by all government and civil society service-delivery institutions working with key populations, including the PRs and SR.
Tunisia	2	The same UIC is used among all NGOs, which has been set up by the PR of Global Fund funding; however, the UIC is not used in the case of clients who go directly to HTC centers; the UIC is not used in care and treatment sites.
Ukraine	3	UIC, which allows for de-duplication, used among Alliance for Public Health in Ukraine and their implementing partners.
Uzbekistan	3	UIC recently introduced for PWID and FSW, which allows for de-duplication. Used by all service providers and linked to the National AIDS Center and the Regional AIDS Centers.

**For countries that were desk review only, there was not enough information available to adequately and reliably assess the existence and use of a UIC. Therefore, details are not included here.*

ANNEX 5. COVERAGE WITH KP PACKAGES

Table A5. National coverage of KP with defined package of services

Coverage refers to "coverage with defined package of prevention services": definition of service package comes from national documents (usually the National HIV Strategic Plan or operational documents associated with the plan). Dashes mean no data was found. Asterisks refer to countries where desk reviews were carried out without follow-up in-country visits.

Country	MSM	SW	PWID	TG	Prisoners
Afghanistan	6.0% [74]	14.4% [75]	27.6% [76]	-	-
Angola	25.4%[77]	23%[78]	-	-	-
Armenia	27.7%[79]	40.2%[80]	27.6%[81]	-	44.6%[82]
Azerbaijan*	30.7%[83]	33.3%[84]	19.2%[85]	-	-
Bangladesh	30.9% [86]	19.1%[87]	36.1%[88]	48%[89]	-
Belarus	11.2%[90]	25.4%[91]	56.8%[92]	-	-
Benin	43.6%[93]	17.7%[94]	112.3%[95]	-	73.2%[96]

[74] 6% of national PSE; 21.3% of estimated population in target areas, 2016 program data
[75] GARPR 2014
[76] GF Program data 2016
[77] Cited in NSP 2015-18; other estimates include 5.5% in GF Funding Request Tailored to Material Change 2016; and 77.2% in NSP 2014. Country report states that local stakeholders distrust the highest figure.
[78] Cited in GF Funding Request Tailored to Material Change 2016; other estimates include 74.3% in NSP 2014. Country report states that local stakeholders distrust the higher figure.
[79] GF Program Update 2016; other figure is 30% (IBBS 2016)
[80] GF Program Update 2016; other figure is 71.3% (GAM 2016)
[81] GF Program Update 2016; other figure is 51.8% (GAM 2016)
[82] IBBS 2016
[83] GF Concept Note 2015
[84] GF Concept Note 2015
[85] GF Concept Note 2015
[86] PUDR 2016
[87] PUDR 2016
[88] PUDR 2016
[89] PUDR 2016
[90] GF PUDR 2016
[91] GF PUDR 2016
[92] GF PUDR 2016
[93] GAM 2017
[94] GAM 2017
[95] GAM 2017
[96] GAM 2017

Bolivia*	15.5%[97]	77%[98]	-	35%[99]	
Bosnia & Herzegovina*	64.6%[100]	61.5%[101]	55.5%[102]	-	130%[103]
Botswana*	115%[104]	68.7%[105]	-	-	-
Burundi*	18%[106]	26%[107]	-	-	-
Cambodia	53.6%[108]	98.4%[109]	35.1%[110]	101%[111]	-
Cameroon	7.8%[112]	6.7%[113]	-	-	-
Cape Verde*	98%[114]	92%[115]	-	-	-
Cote d'Ivoire*	18.3%[116]	-[117]	-	-	-
Dominican Republic	65.5%[118]	56.9%[119]	-	82.6%[120]	-
Ecuador*	29.5%[121]	81.6%[122]	-	21%[123]	-
Egypt*	-	-	-	-	-

[97] 2015 IBBS
[98] GAM 2016
[99] GAM 2016
[100] GF PUDR 2016
[101] GF PUDR 2016
[102] GF PUDR 2016
[103] GF PUDR 2016
[104] GF PUDR 2017
[105] GF PUDR 2017
[106] GF PUDR 2016
[107] GF PUDR 2016
[108] PUDR 2016 – so GF only
[109] PUDR 2016
[110] PUDR 2016
[111] PUDR 2016 – PSE is 3,000; coverage shows 3,008 reached
[112] Program data GF and PEPFAR reviewed by APMG; other figure is 46.2% (IBBS 2016)
[113] Program data GF and PEPFAR reviewed by APMG; other figure is 65.1% (IBBS 2016)
[114] GF Concept Note 2015
[115] GF Concept Note 2015
[116] IBBS 2016
[117] GF and PEPFAR reached more than 36,000 FSW in 2016
[118] GF PUDR 2017
[119] GF PUDR 2017
[120] GF PUDR 2017
[121] IBBS 2015
[122] IBBS 2015
[123] IBBS 2015

El Salvador*	58.2%[124]	52.9%[125]	-	55%[126]	-
Georgia	22.5%[127]	48.6%[128]	61%[129]	-	21%[130]
Ghana*	54.7%[131]	48%[132]	-	-	79.5%[133]
Guatemala	25.4%[134]	63%[135]	-	100%[136]	-
Guyana	64%[137]	63%[138]	-	-	-
Haiti	72.2%[139]	40.1%[140]	-	-	-
Honduras*	23.7%[141]	16.1%[142]	-	15.9%[143]	16.9%[144]
India	65.8%[145]	77.4%[146]	72.3%[147]	34.3%[148]	-
Indonesia	20.4%[149]	40.4%[150]	44.3%[151]	48.3%[152]	-
Iran*	-	12%[153]	16%[154]	-	7%[155]

[124] GF Concept Note 2016
[125] GF Concept Note 2016
[126] GF Concept Note 2016
[127] GF PUDR 2016
[128] GF PUDR 2016
[129] GF PUDR 2016
[130] GF PUDR 2016
[131] GAC 2016
[132] PEPFAR/ GF (2017) Assessing the scope and effectiveness of key population interventions in the response to the HIV and AIDS Epidemic in Ghana
[133] GF Concept Note 2014
[134] GF Concept Note 2016
[135] GF Concept Note 2016
[136] GF Concept Note 2016
[137] Program data GF and PEPFAR reviewed by APMG
[138] Program data GF and PEPFAR reviewed by AP
[139] Program data GF and PEPFAR reviewed by APMG
[140] Program data GF and PEPFAR reviewed by APMG
[141] GF Funding Request 2017
[142] GF Funding Request 2017
[143] GF Funding Request 2017
[144] GF Funding Request 2017
[145] India NACP Annual Report 2015/16
[146] India NACP Annual Report 2015/16
[147] India NACP Annual Report 2015/16
[148] India NACP Annual Report 2015/16
[149] PR 2017 data. 20.4% of national PSE. PR reached 57% of estimated population in intervention areas
[150] GF Program data 2017; 92928/229,852
[151] Of national PSE
[152] GF Program data 2017; 18,524/38,031
[153] IBBS 2010
[154] IBBS 2010
[155] IBBS 2010

Jordan*	-[156]	-[157]	-[158]	-	-
Kazakhstan*	80%[159]	55.6%[160]	90%[161]	-	99.8%[162]
Kenya	245%[163]	132%[164]	106%[165]	-	-
Kosovo	21.8%[166]	5.3%[167]	57.4%[168]	-	-
Kyrgyz Republic	32.2%[169]	57%[170]	58.7%[171]	-	16.3%[172]
Lebanon*	4%[173]	-	4%[174]	-	-
Lesotho*	4.1%[175]	10%[176]	-	-	-
Madagascar	40.2%[177]	98.1%[178]	101.13%[179]	-	-
Malawi	68%[180]	65%[181]	-	-	-
Mali	73.1%[182]	52.3%[183]	-	-	-

[156] No national coverage figure. Programmatic data: Amman: 52% Irbid: 63%
[157] No national coverage figure. Programmatic data: Amman: 76% Irbid: 94%
[158] HIV prevention provided to 796 PWID.
[159] IBBS 2011
[160] IBBS 2011
[161] IBBS 2011
[162] IBBS 2011
[163] NASCOP (2018); GF PR reports reaching 90% of their 8500 coverage target in 2014-16
[164] NASCOP (2018)
[165] NASCOP (2018)
[166] GF PUDR 2016
[167] GF PUDR 2016
[168] GF PUDR 2016
[169] GF PUDR 2016
[170] GF PUDR 2016
[171] GF PUDR 2016
[172] GF PUDR 2016
[173] GF PUDR 2016
[174] GF PUDR 2016
[175] IBBS 2014
[176] IBBS 2014
[177] IBBS 2014
[178] PSI programmatic progress status, 2017
[179] PSI programmatic progress status, 2017
[180] 2017 PLACE II study
[181] 2017 PLACE II study
[182] Programmatic Results Plan Mali, July-October 2016
[183] Programmatic Results Plan Mali, July-October 2016

Mauritius*	85.6%[184]	80.5%[185]	83.8%[186]	-[187]	-
Moldova	26.9%[188]	46.9%[189]	50.1%[190]	-	29.3%[191]
Mongolia	55.5%[192]	25.6%[193]			
Morocco	61%[194]	45%[195]	33%[196]	-	-
Nepal	79.7%[197]	34.8%[198]	67.8% [199]	29.8% [200]	-
Nigeria*	34%[201]	61.4%[202]	5.5%[203]	-	-
Pakistan	15.6%[204]	0.7%[205]	21.2%[206]	1.1%[207]	
Panama*	61.7%[208]	41.6%[209]	-	70.9%[210]	-
PNG	9.1%[211]	23%[212]	-	-	-
Paraguay*	16%[213]	66.1%[214]	-	62.1%[215]	-

[184] IBBS 2012
[185] IBBS 2012
[186] IBBS 2011
[187] TG figures included in MSM
[188] GF PUDR 2017
[189] GF PUDR 2017
[190] GF PUDR 2017
[191] GF PUDR 2017
[192] PUDR 2016
[193] PUDR 2016
[194] IBBS 2015
[195] IBBS 2016
[196] NGO Program Reports, 2013
[197] PR Data July – Dec 2017
[198] FHI 360 data 2017 17.080/49,018
[199] PR Data July – Dec 2017
[200] PR Data July – Dec 2017
[201] GF PUDR 2015
[202] GF PUDR 2015
[203] GF PUDR 2015
[204] 2017 PR Program data
[205] 2017 GAM
[206] 2017 PR Program data
[207] 2017 GAM
[208] GAM 2016
[209] GAM 2016
[210] GAM 2016
[211] PUDR 2017
[212] GF Program data 2017
[213] GF PUDR 2016
[214] GF PUDR 2016
[215] GF PUDR 2016

Peru	13.9%[216]	34.9%[217]	-	14.3%[218]	-
Philippines	66%[219]	63%[220]	17%[221]	14.3%[222]	-
Seychelles*	62%[223]	86.5%[224]	0	-	-
Sierra Leone	24.4%[225]	15%[226]	28%[227]	22%[228]	-
South Africa	1.5%[229]	15.8%[230]	-	-	-
Sri Lanka	48.1%[231]	32.6%[232]	44%[233]	-	-
Sudan	33.2%[234]	28.7%[235]	-	-	-
Tajikistan*	42.9%[236]	64.6%[237]	60.1%[238]	-	-
Tanzania*	14%[239]	20%[240]	9.5%[241]	-	
Thailand*	59.0%[242]	83%[243]	36%[244]	11%[245]	-

[216] GF PUDR 2017
[217] GF PUDR 2017
[218] GF PUDR 2017
[219] PUDR 2017
[220] AIDS Data Hub – 2011 figure only;
[221] AIDS Data Hub snapshot 2018
[222] GF Program data 2016; 17,559/122,800
[223] IBBS 2011
[224] IBBS 2015
[225] GF PF NAS 2016
[226] GF PF NAS 2016
[227] GF PF NAS 2016
[228] GF PF NAS 2016
[229] IHPS & AHC (2016), Enhanced Progress Report of the South African National Strategic Plan on HIV, STIs and TB: 2012-2016
[230] SANAC (2016) *The South African National Sex Worker Plan 2016-2018* Pretoria
[231] National AIDS Program In-depth Review of KP Response 2016
[232] National AIDS Program In-depth Review of KP Response 2016
[233] PWUD, not PWID; National AIDS Program In-depth Review of KP Response 2016
[234] GF PUDR 2014
[235] GF PUDR 2014
[236] GF PUDR 2016
[237] GF PUDR 2016
[238] GF PUDR 2016
[239] GF Concept Note 2014
[240] GF Concept Note 2014
[241] GARPR 2014
[242] MSM Program reach 2016 baseline in 2017-2020 National Targets document
[243] FSW IBBS 2016 baseline in 2017-2020 National Targets document (MSW program reach 72%; IBBS 73% 2016)
[244] PWID program reach 2016 baseline in 2017-2020 National Targets document
[245] TG program reach 2016 baseline in 2017-2020 National Targets document

Timor-Leste*	60.2%[246]	72.0%[247]	-	-	-
Togo	58.7%[248]	108.9%[249]	-	-	-
Tunisia	35.9%[250]	35.8%[251]	29.3%[252]	-	-
Uganda*	17.5%[253]	40%[254]	12%[255]	-	-
Ukraine	24%[256]	48%[257]	65%[258]	-	-
Uzbekistan	-[259]	61.3%[260]	63%[261]	-	-
Vietnam*	28.7%[262]	32.8%[263]	18.7%[264]	-	-

[246] 2016 GF Program data 5240/8723)
[247] GARPR 2015
[248] Program data reviewed by APMG
[249] Program data reviewed by APMG
[250] GF PUDR 2014
[251] GF PUDR 2016; other figure is 55.7% (IBBS 2012)
[252] GF PUDR 2016; other figure is 50% (IBBS 2014)
[253] GAM 2016
[254] GAM 2016
[255] GAM 2016
[256] GF PUDR 2017
[257] GF PUDR 2017
[258] GF PUDR 2017
[259] No MSM PSE; 2039 MSM reached with defined prevention package in 2017 (GF PUDR 2017)
[260] GF PUDR 2017
[261] GF PUDR 2017
[262] UNAIDS 2018 data report (2016 GF program coverage 62.2% of estimate in program areas – 23,248/37,348)
[263] UNAIDS 2018 data report (GF 2016 Program coverage 28.9% of estimate in program areas - 10,275/35,539)
[264] UNAIDS 2018 data report (2016 GF program coverage 33.4% of estimate in program areas – 37,693/112,659)