

HIV CASCADE FRAMEWORK

for Key Populations

October 2015

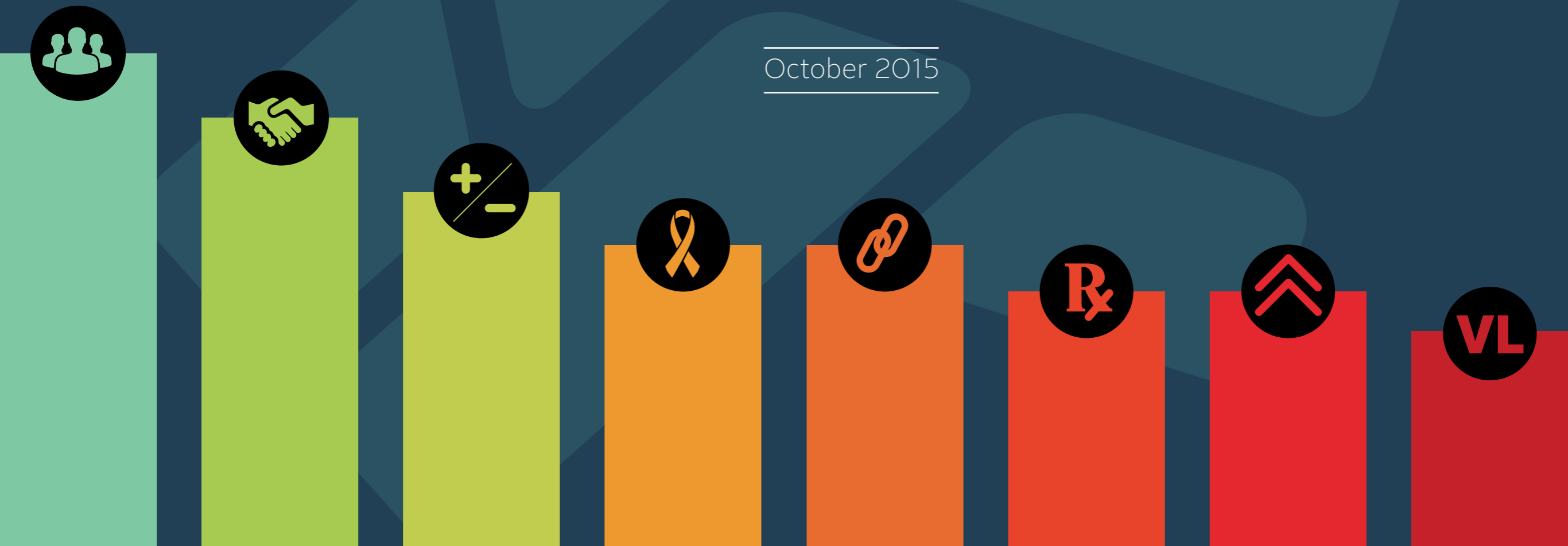


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Abbreviations and Acronyms

AIDS	Acquired immune deficiency syndrome
ART	Antiretroviral therapy
CoPCT	Continuum of prevention, care, and treatment
GBV	Gender-based violence
HCW	Health care worker
HIV	Human immunodeficiency virus
HTC	HIV testing and counseling
KP	Key population
MSM	Men who have sex with men
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	People living with HIV
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
STI	Sexually transmitted infection
SBCC	Social and behavior change communication
UIC	Unique identifier code
UNAIDS	Joint United Nations Program on HIV/AIDS
USAID	United States Agency for International Development
WB	Western Blot
WHO	World Health Organization

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1. Overview and Purpose

Strengthening intervention linkages for epidemic control

Over the past 15 years, the world has made remarkable strides in halting and reversing the HIV epidemic: annual new infections have declined 35% since 2000 and 15 million people living with HIV (PLHIV) are now on antiretroviral therapy (ART). However, the key populations (KPs) of sex workers¹, men who have sex with men (MSM)², transgender people, and people who inject drugs (PWID)³ remain disproportionately affected; 40-50% of all new HIV infections among adults worldwide occur among these populations and their sex partners.

KPs are a high priority in efforts to reach the ambitious 90-90-90 goals of the Joint United Nations Program on HIV/AIDS (UNAIDS) – by 2020, 90% of all PLHIV will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained ART, and 90% of all people receiving ART will have durable viral suppression. Similarly, PEPFAR 3.0 lays out a data-driven approach that stresses evidence-based interventions focusing on the highest risk populations in areas of highest HIV incidence. This “epidemic control” model necessitates that KPs flow efficiently, consistently, and sustainably through the entire HIV continuum of prevention, care, and treatment (CoPCT) services. This seamless integration of interventions requires strong linkages among program elements so that HIV transmission is reduced and people diagnosed with HIV obtain early access to services, including ART.

“Speaking to concentrated epidemics, we understand that we still have work to do in reaching populations and ensuring linkages to care and treatment...We know that if any one of our populations is left behind, if any one of us is left behind, all of us are left behind and we won’t control the pandemic.”

*-Ambassador Deborah Birx, MD,
U.S. Global AIDS Coordinator,
June 2014*

¹including male, female, and transgender sex workers, depending on local context

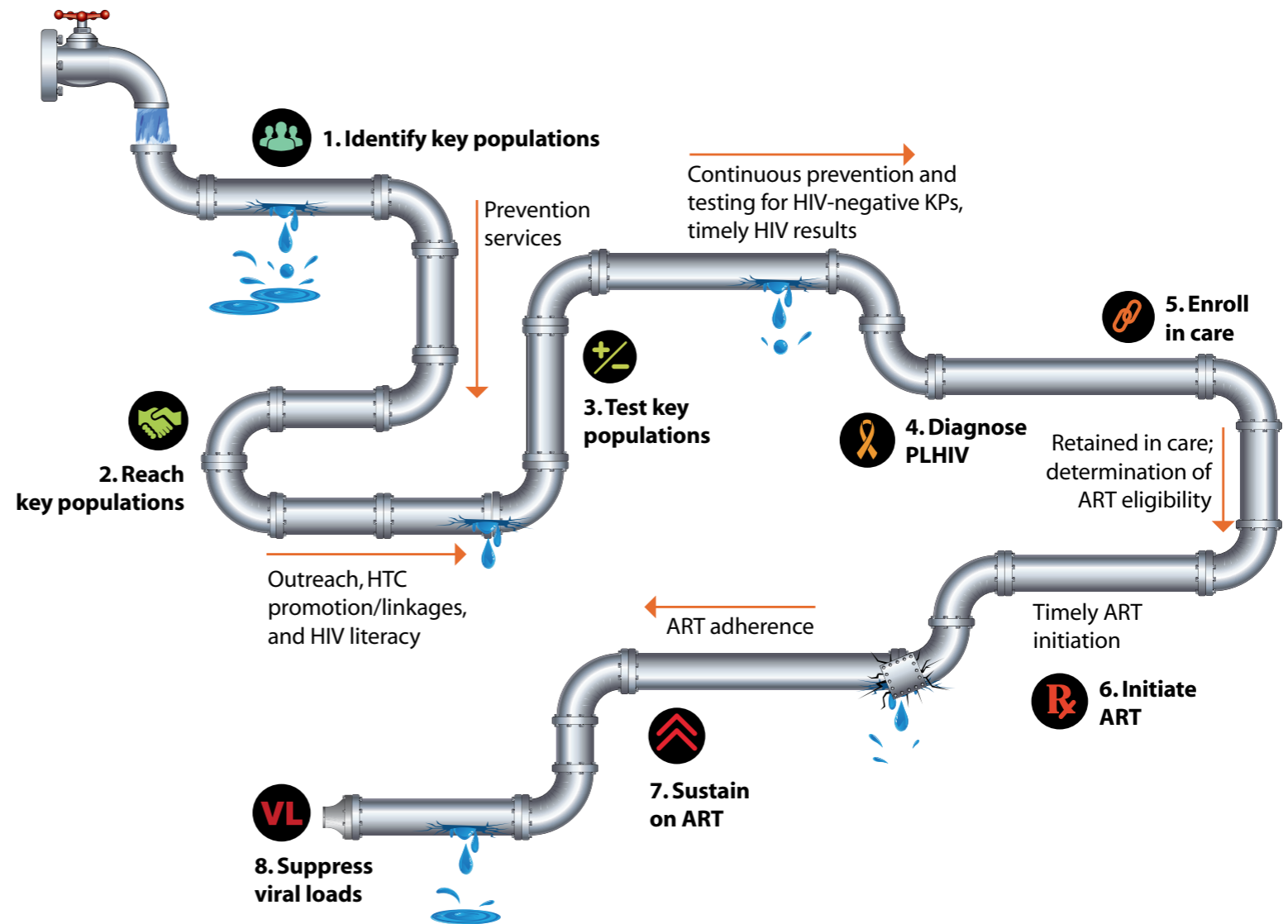
²including gay and bisexual men and non-gay identified MSM

³Although the focus of the framework is PWID, we recognize that non-injection drug use tends to increase risky sexual behaviors and is also often an entry point to injection drug use.

However, KPs face multiple challenges accessing HIV services, including stigma and discrimination, violence, human rights abuses, and a lack of community and social supports. Linkages between interventions for KPs are frequently inadequate at every stage of the HIV continuum of prevention, care, and treatment.

These weak linkages among programs can be thought of as a leaky pipe along the continuum of HIV services (Figure 1). Outreach programs often refer KP members to HIV testing and counseling (HTC), yet a large segment of those reached never actually go for an HIV test. If KP members do obtain an HIV test, those who are HIV-negative may only test once or infrequently, despite ongoing risk. Those diagnosed HIV-positive may leave the testing site without a referral to care and treatment. Loss-to-follow-up for KPs is very common across the continuum in many settings, contributing to a significant and preventable burden of HIV morbidity and mortality.

Figure 1 | The Leaky Pipe of the HIV Continuum of Prevention, Care, and Treatment Cascade



To understand the gaps among HIV services and the resulting loss-to-follow-up, program managers and researchers in recent years have applied a framework broadly known as the HIV Continuum of Prevention, Care, and Treatment Cascade. The HIV CoPCT cascade is a way to show, in visual form, the numbers of individuals who are actually accessing CoPCT services and receiving the services they need. At each step of the continuum, the HIV CoPCT cascade illustrates engagement in an HIV service system. It powerfully identifies “leaks” in the system, so that implementers at site, district, provincial, or national levels can target limited resources toward effective interventions that improve the health of HIV-positive individuals, lower the amount of virus in vulnerable communities, and prevent new infections in the long term. Knowing where the drop-offs are most pronounced is vital for knowing where, when, and how to intervene to break the cycle of HIV transmission and achieve the 90-90-90 goals.

Unsupportive environments and capacity gaps hinder access to the HIV CoPCT cascade for KPs

While previous HIV CoPCT cascade analyses have focused on HIV treatment and the goal of undetectable viral load, more recent efforts emphasize the need to address both the unsupportive environments that KPs live in as well as the significant capacity gaps in organizations led by and serving KPs, both of which currently hinder access to quality services for KPs in most countries. Such services do not operate within a vacuum but require both a supportive environment as well as strong organizations and networks to attract and serve KPs safely and effectively.

Unsupportive environments include laws that criminalize the behaviors of MSM, sex workers, transgender people, and PWID. Such laws drive KP communities underground and produce a culture of stigma and discrimination that permeates virtually every aspect of their lives – leaving them with unsupportive families, huge barriers to education and employment, and societies that ostracize them. At the HIV service level, this stigma and discrimination translates into humiliation, blackmail, and violence.

For these reasons, the capacity building of KP-led organizations and the community mobilization of KP communities is paramount. Such organizations are often the first, only, or safest point of contact for people. Since public health systems are typically slow to change, KP-led organizations are indispensable for providing basic services as well as helping individuals to navigate and select KP-friendly services as they begin to exist in a changing setting.

In summary, the work of constructing and analyzing HIV CoPCT cascades helps implementers and other stakeholders to:

- Obtain a snapshot of HIV service system performance for the KP of interest
- Organize KP engagement by location, gender, KP, age, or other factors, while taking care to protect the confidentiality and safety of KPs
- Identify loss of engagement among KP members in the HIV CoPCT – expressed as gaps, leakages, or missed opportunities
- Prioritize actions to improve HIV service system performance, including the environments in which they operate and KP organization and network capacities
- Apply human, financial, and programmatic resources in strategic ways
- Use a public health approach that focuses on population-level impact
- Mobilize and engage KP members to advocate for and lead improvements in the HIV CoPCT relevant to their needs and interests

Purpose of this framework

The purpose of this document is to assist those responsible for the continuum of HIV services to construct, analyze, and use the HIV cascade framework to improve improve of HIV services by KPs and retention in those services. Intended audiences include ministries of health and other government agencies, nongovernmental and civil society organizations, HIV program managers, and researchers.

This document outlines:



Cascade frameworks and their use in planning and improving HIV prevention, care, and treatment components



Examples of HIV CoPCT cascades



Illustrative indicators for the standardized construction of cascades



Important tips to help implementers effectively interpret and use the cascade



Simple steps to follow to construct a cascade



Strategies and resources for improving the cascade and linkages between HIV prevention, care, and treatment components

“If there is one word I’d emphasize, it is community, community, community. The 90–90–90 target cannot be delivered without engaging the community.”

*- Paul Semugoma,
Health 4Men Programme,
Anova Health Institute,
February 2015*

2. The HIV CoPCT Cascade Framework

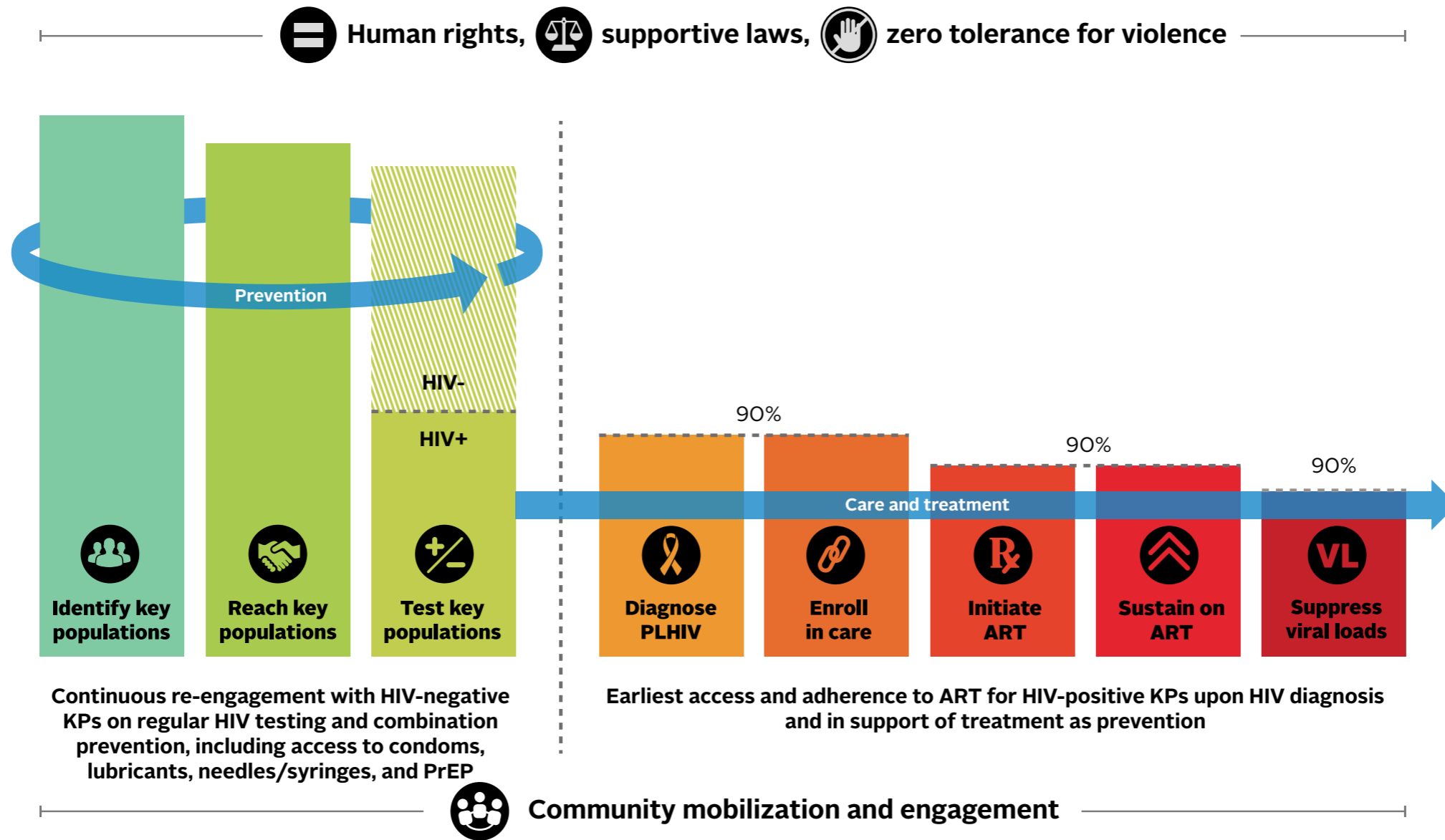
Common features of a cascade

As presented in Figure 2 on the following page, the HIV CoPCT cascade consists of the following stages, or “steps.”

-  1. Identify key populations
-  2. Reach key populations
-  3. Test key populations
-  4. Diagnose PLHIV
-  5. Enroll in care
-  6. Initiate ART
-  7. Sustain on ART
-  8. Suppress viral loads

The entire CoPCT cascade is buttressed by critical environmental, structural, and legal interventions that are designed to help KPs enter and flow through the continuum without fear of stigma, discrimination, arrest, or other adverse consequences.

Figure 2 | The HIV Continuum of Prevention, Care, and Treatment Cascade



The first three bars of the figure represent identification, reach, and HIV testing of KP communities and include HIV-negative and HIV-positive KP members. For those testing HIV-negative, this area of the cascade encompasses primary prevention and highlights the need for constant re-engagement to promote combination prevention approaches that include rights-based, peer-led behavior counseling, condom use, regular HIV testing, sexually transmitted infection (STI) services, harm reduction interventions and pre-exposure prophylaxis (PrEP) as appropriate. Primary prevention interventions must ensure access to steady supply of HIV commodities, including condoms, lubricants and needles/syringes and must continue to build demand for and uptake of prevention services.

It is important that novel and innovative approaches – such as mHealth and social media – continue to be developed and applied as primary prevention strategies. Innovative approaches help programs to remain responsive and relevant to KP needs and priorities, which evolve over time.

The remaining bars represent the care and treatment portion of the HIV CoPCT cascade, for those who test HIV-positive. After a facilitated referral, such as through the use of peer navigators, the KP members living with HIV enroll in KP-friendly care. A dedicated case manager or care team supports PLHIV to access and initiate ART, providing adherence support to improve health outcomes and ultimately reduce viral load.

As noted earlier, **supportive environments and empowered communities** facilitate HIV cascade flow. In Figure 2, we have noted that human rights, supportive laws, and zero tolerance for violence are key components of a supportive environment for KPs since these are still lacking in many countries and their absence is a huge constraint. Without them, improved services can remain under-utilized and inefficient since KPs will often remain underground for fear of arrest or violence. Likewise, community involvement and mobilization are essential elements throughout the cascade, as indicated in the diagram. Community members play a key role in peer-to-peer education, demand creation for services, provision of psychosocial support, facilitation of support groups, income-generating activities, supporting treatment adherence, representation on local health committees and feedback on quality of services provided, etc. Empowered communities and KP-led organizations ensure that services along the cascade are appropriate and acceptable to KP members.

The HIV CoPCT cascade for each KP – sex workers, MSM, transgender people, and PWID – will have some commonalities with those for other groups, but also some distinct features and services for each group. For example, community-based interventions led by sex workers encourage consistent condom use and health screenings, whereas distribution of needles and syringes and increasing access to opioid substitution therapy are key recommended interventions for PWID while access to hormonal therapies can serve as an opportunity to provide HIV-specific services for transgender people. Before initiating a cascade analysis, it is important to determine if there may be multiple, embedded cascades within a given location or context, depending on variables such as gender, time, location, or KP affiliation. The cascade analysis must consider that individuals may have overlapping risks and fall into multiple KP categories.

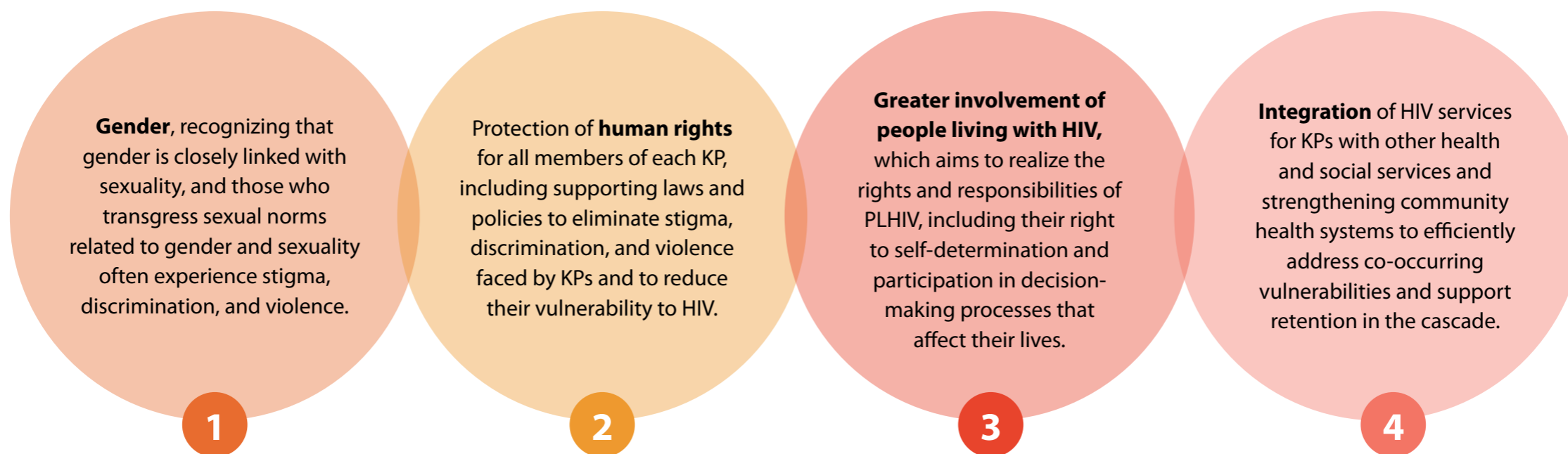
Guiding principles

Six key principles guide the development and use of HIV CoPCT cascades. Simply put, cascades should be:

1. **Simple to generate**, by relying on data from a minimal set of core indicators
2. **Easy to use and interpret** by a variety of implementers, with minimal outside technical assistance
3. **Adaptable**, according to the data needs at program, site, provincial, or national levels
4. **Consistent**, by using the same set of recommended indicators and clearly outlining the location, time period, and population represented in the analysis
5. **Supportive of data use that** strives to continually improve the HIV service system
6. **Constructed with the active participation and leadership of KPs** throughout the development, collection, analysis, presentation, and use of data

Values

The following four values and approaches were considered in developing the HIV Cascade Framework:



3. Building an HIV CoPCT Cascade

Building an HIV CoPCT cascade requires access to a wide variety of data, including population size estimates for the specific KP of interest; outreach data; and data from public, private, and community-based facilities that provide HIV services to members of KP. These data might need to be estimated if data sources are not available or complete, or if data are not routinely collected. Data may also need to be adjusted based on varying definitions of “reached” or “tested” across programs.

Additionally, it is important to determine whether the purpose of the cascade is to assess the current total number of KP members accessing services (a cross-sectional cascade) or to follow and assess a specific cohort of KP members accessing services over time (a cohort cascade).

“Data collection doesn’t always include us. Sometimes we get collapsed under ‘MSM’ categories, or we get collapsed under ‘women’ categories. What ends up happening as a result is that we don’t actually get counted.”

*-JoAnne Keatley,
International Reference Group/Center for
Excellence for Transgender Health, AIDS
2014*

A **cross-sectional cascade** assesses overall cascade performance for a specified KP or subpopulation within a geographic locality, at any one point in time. It can be constructed for KPs cumulatively or for those newly enrolled. These cascades can help implementers answer questions about how many KPs are currently enrolled in care, how many have enrolled in care since the start of a specific program, and how many KP members are on ART. Indicators for cross-sectional cascades aggregate program data relevant to key cascade bars over time to provide the big picture view of the HIV response and the major areas of cascade leakage.

A **cohort cascade** requires programmatic monitoring approaches that use a unique identifier coding (UIC) system for individual participants. This approach helps ensure that KP individuals who belong to a particular cohort – such as KP members diagnosed with HIV within a specific region at a particular time – are accurately accounted for throughout the HIV CoPCT service system over time. Ideally, a robust UIC system is easy to generate and recreate, yet secure enough to avoid duplication.

Understanding sources of data

Graphic representations of HIV CoPCT cascades provide valuable tools to illustrate the gaps in reaching the UNAIDS 90-90-90 goals in HIV testing, access to ART, and reduced viral load among KPs. However, data may originate from sources that have had a limited historical focus on KPs – including size estimations, HIV testing sites, clinics, and hospitals – so those constructing cascades may necessarily rely on incomplete or suboptimal inputs. While this lack of quality data may hinder the construction of a “perfect” HIV cascade, it is often worthwhile to proceed with analyzing whatever data are available; the process itself will highlight the need for improved data systems for KPs. Here are some key considerations regarding data quality.

- **Know your data sources.** When conducting an HIV cascade analysis, it is critical to understand and identify the sources of data and how these data are reported, and to recognize any data limitations. Missing information, such as the numbers of PLHIV lost to follow-up or deceased from AIDS, can skew bar totals and under- or overestimate linkages between interventions. Over-reporting, or counting outreach contacts, program visits or number of HIV tests instead of individual KP members reached with services, will over or underemphasize the size of the reach-testing gap.
- **Lack of data specific to KPs.** The lack of disaggregated HIV services data for KPs means that data will need to be adjusted during the cascade generation process to account for this lack of specificity. Indeed, most countries do not have systems that appropriately and ethically track KP-specific access to HIV testing or segment KPs in care and treatment. Thus, HIV cascade analyses often lead to recommendations to improve reporting systems on HIV services for KPs. Additionally, initiatives such as KP technical working groups can foster collaboration and data-sharing among implementers and other stakeholders.
- **Consistency and common parameters.** These are key in constructing an HIV cascade. Analyses need to consistently identify geographic parameters, time, data sources, and KPs so that data represent a consistent population base who access services across the cascade. A coordinated UIC system helps ensure a consistent KP population base over time.

123 Preparatory steps

Building an HIV CoPCT cascade starts with five questions.

- 1. Where?** Distinguish the geographic area of focus or scope. Is it the national HIV system? The provincial or district response? A particular program? One facility? Knowing the focus of a specific cascade will help implementers identify key data needs and steer them toward appropriate data sources.
- 2. Which service area will be emphasized?** Will focus be on the full CoPCT? Outreach? Care and treatment? Knowing the CoPCT technical focus will assist implementers in distinguishing which cascade bars will be examined.
- 3. Who?** Identify the KP. Will data disaggregation be by gender, age, or some other population characteristic? Or will total population figures be used? Because different KPs may have unique CoPCT service access, acceptability or utilization issues, it is recommended that implementers use disaggregated data whenever possible.
- 4. When?** Plot the time period, clearly specifying the start and end dates (e.g., month/year). Ensure that the time period reflects an official reporting cycle, such as the end of a month, quarter, semiannual, or annual episode.
- 5. How?** Distinguish presentation format. Will a cascade graph be used or another representational style, such as a dashboard or trend graph?

Data collection guidance and considerations

Whenever possible, data used in the preparation of HIV CoPCT cascades should come from reports submitted as part of government reporting requirements and those submitted by nongovernmental organizations. Here are important data collection considerations for each step.

- 1. Identifying key populations.** KP size estimation figures should be officially vetted, either through consensus consultations or via national modeling exercises.
- 2. Reaching key populations.** Outreach figures should use individuals reached as a designated unit of analysis, not contacts or visits. Data should be disaggregated by KP, subcategory, and gender.
- 3. Testing key populations.** HTC data often capture the number of tests rather than the number of individuals who tested. This means that one KP member may have tested for HIV multiple times at the same facility during a specific reporting period. Data must often be adjusted to exclude repeated positive tests; guidance on how to make those adjustments is provided in the following section.
- 4. Enrolling PLHIV in care.** The facility ART register should be used to distinguish between new and existing KP members who are registered at HIV outpatient clinics.
- 5. Initiating ART.** Like care and treatment enrollment, analyses should distinguish between the number of PLHIV who newly initiate ART during a specific reporting period and all PLHIV on ART served by the clinic.

Balancing ethics and accuracy in data collection on key populations

Data on key populations' access to services among the HIV CoPCT cascade are hugely important for determining where service gaps exist, to improve the quality of those services over time, and for advocacy purposes. However, in many settings, the identification of an individual as a man who has sex with a man, a transgender person, a sex worker, or a person who injects drugs can lead to harmful consequences such as arrest or, in some cases, even death. Given these potential harms, data collection on key populations must be very carefully conceptualized and implemented, starting with the involvement of key populations in data collection plans.

While UIC can help to protect individuals, they too are not without risk since once a person starts ART and is identified by name for follow-up purposes, some combination of databases may inadvertently link that name to a UIC where the person is identified as belonging to a key population group.

Adjusting data

HTC data often capture the number of tests conducted rather than the number of individual KP members who tested for HIV. The data must be adjusted in order to estimate a true number of KPs who tested, with repeat testers subtracted from the totals. Implementers can use the following formula to adjust the data for the number of KP members tested and also for the number of KP members who tested HIV-positive:

- **Number of KP clients tested** = (Number of reported tests) x (Proportion of clients who tested are KP [sex workers, MSM, transgender, PWID]) x (1- Proportion of clients who re-tested among clients who are KP)
- **Number of KP clients positive for HIV** = (Number of reported positive tests) x (Proportion of clients who are KP among clients who are positive for HIV) x (1- Proportion of KP clients who retested among clients who are positive for HIV)

4. HIV CoPCT Cascade Metrics

Developing the cascade indicators

Key indicators, or “metrics,” are associated with each step of the cascade. Derived from available data, these indicators are used to generate a visual representation of HIV service system performance.

1:1 rule

To ensure that CoPCT cascades are based on consistent data sources, it is helpful to follow a 1:1 rule: that is, a single, recommended indicator is used to define each step of the cascade, where data on each of these indicators are routinely collected.

It is important to note that indicator definitions vary between different programs and donors. For example, “reach” is often defined and counted differently – Global Fund recommends that a defined minimum package be provided before an individual can be counted as reached, while others allow counting of any individual reached with any intervention.

“Data need to be packaged for high-level advocates to be effective. That’s where the legion of civil society, faith- and community-based organizations, think tanks, advocacy groups, scientists, and public health officials make all the difference.”

*-Marc Dybul, Executive Director,
Global Fund to Fight AIDS,
Tuberculosis and Malaria, July 2015*



Figure 3 presents an illustrative example of cascade indicators. Please use your cursor to highlight each step of the cascade below.

Figure 3 | Illustrative cascade indicators

Additional guidance in developing and applying cascade indicators can be found here in the [WHO's Consolidated strategic information guidelines for HIV in the health sector](#) released in 2015 and the [Metrics for monitoring the cascade of HIV testing, care and treatment services in Asia and the Pacific](#).

Calculating percentage data

Each indicator is expressed as a whole number (the numerator), which can be converted into a percentage of the previous indicator (denominator), if the denominator is known. This percentage is placed with an arrow between the relevant cascade steps.

For example, if you have identified 100 members of a KP (Cascade Step 1), and 25 of them have been reached by outreach workers (Cascade Step 2), the percentage of KPs reached would be 25 divided by 100, which equals 0.25 or 25%. See Table 1 for illustrative cascade indicators and percentages.

Table 1 | Calculating percentage data for an illustrative cascade

Cascade step	Indicator	Percentage = Numerator ÷ Denominator	Potential Data Sources
Identify key populations	Number of people in a specific KP group in a given locality (size estimation)	Not applicable	Size estimates of key populations in specific areas
Reach key populations	Number and percentage of individual KPs reached by community outreach workers or through other programming	Numerator: Number of individual, specific KPs reached by community outreach workers or through other programming Denominator: Number of people in a specific KP group estimated in a given locality (size estimation from previous indicator)	Databases of organizations providing outreach, e.g., community-based KP organizations
Test key populations	Number and percentage of KPs who received HTC and their test results	Numerator: Number of KPs who received HTC and their test results Denominator: Number of KPs reached by community outreach workers or through other programming	Databases of organizations providing HIV testing services, e.g., community-based KP organizations, government clinics and hospitals
Diagnose PLHIV	Number and percentage of KPs who received HIV-positive test results and post-test counseling	Numerator: Number of KPs who received HIV-positive test results and post-test counseling Denominator: Number of KPs who received HTC and their test results	Databases of organizations providing HIV testing services, e.g., community-based KP organizations, government clinics and hospitals
Enroll in care	Number and percentage of HIV-positive KPs enrolled in clinical care	Numerator: Number of HIV-positive KPs enrolled in clinical care (including pre-ART and ART) Denominator: Number of KPs who received HIV-positive test results and post-test counseling	Databases of community-based KP organizations and/or government clinics, hospitals
Initiate ART	Number and percentage of HIV-positive KPs enrolled on ART in accordance with nationally approved protocol or WHO standards	Numerator: Number of HIV-positive KPs enrolled on ART in accordance with nationally approved protocol or WHO standards Denominator: Number of HIV-positive KPs enrolled in clinical care	Local and national ARV client databases
Sustain on ART	Number and percentage of HIV-positive KPs known to be alive and on treatment 12 months after initiation of ART	Numerator: Number of HIV-positive KPs known to be alive and on treatment 12 months after initiation of ART Denominator: Number of HIV-positive KPs receiving ART in accordance with nationally approved protocol or WHO standards	Local and national ARV client databases
Suppress viral load	Number and percentage of HIV-positive KPs on ART tested with suppressed viral load (<1000 copies/ml)	Numerator: Number of HIV-positive KPs on ART tested with suppressed viral load (<1000 copies/ml) Denominator: Number of HIV-positive KPs known to be alive and on treatment 12 months after initiation of ART	Local and national ARV client databases

5. Presenting an HIV CoPCT Cascade

i Interpretation tips

The real value of the cascade lies in its use as a programmatic quality improvement tool. When reviewing cascade data, implementers should ask the following questions as they begin the process of interpretation and utilization.

- **Where are the leaks?** While there may be leaks throughout the cascade, some areas may be more pronounced, or more important to address, than others. Often, key leaks in the cascade occur from the reach–test, and from the diagnosis–enrollment phases. Deciding where to focus quality improvement efforts is a critical step in interpreting cascade data.
- **Why are there leaks?** In collaboration with service providers, KP members, and other key stakeholders, implementers should examine the reasons behind cascade leaks. Reasons can include:
 - KP access and uptake barriers: do KP members know and believe in the benefits of the services? Are service locations accessible, affordable, and convenient?
 - Structural barriers: does the legal and policy environment facilitate or impede KP access and uptake of services?
 - Data quality issues: do data quality issues compound cascade gaps or minimize cascade leakages?

- **Who is most affected by the leaks?** Are the data disaggregated by KP characteristics, such as gender, age, or income? If so, are there differences between groups and their service access, uptake, or retention?
- **How do we best address the leaks?** Implementers can use cascades as starting points for brainstorming solutions. Cascade analyses not only identify where leaks occur and who is most affected, but can also facilitate tailored interventions that close the leaks. Examples of common leaks and relevant solutions include:
 - Low service coverage of KPs: solutions may include advocacy to focus programmatic resources more appropriately, moving services to locations closer to KPs, extending opening/closing times, reducing fees, integration with other services or 'one-stop shops' that offer comprehensive services, and provider training to create a more friendly, competent environment for KPs.
 - Outdated HIV policies or lack of specific policies: these require updating policies and standard operating procedures, issuing directives, and training providers.
 - Limited clientele: increasing client access may require demand creation strategies, treatment literacy initiatives that emphasize the benefits of treatment for prevention and well-being, performance-based incentives, the application of greater confidentiality measures, and possible transportation support for clients.

It is important for implementers to work in close collaboration with KP members, HIV service providers, and policymakers to develop strategies for improving cascade performance. Strategies, resources, and tools for strengthening the cascade for KPs are included in Section 6.

Presenting an HIV CoPCT cascade

Here are some general guidelines to follow when presenting a cascade.

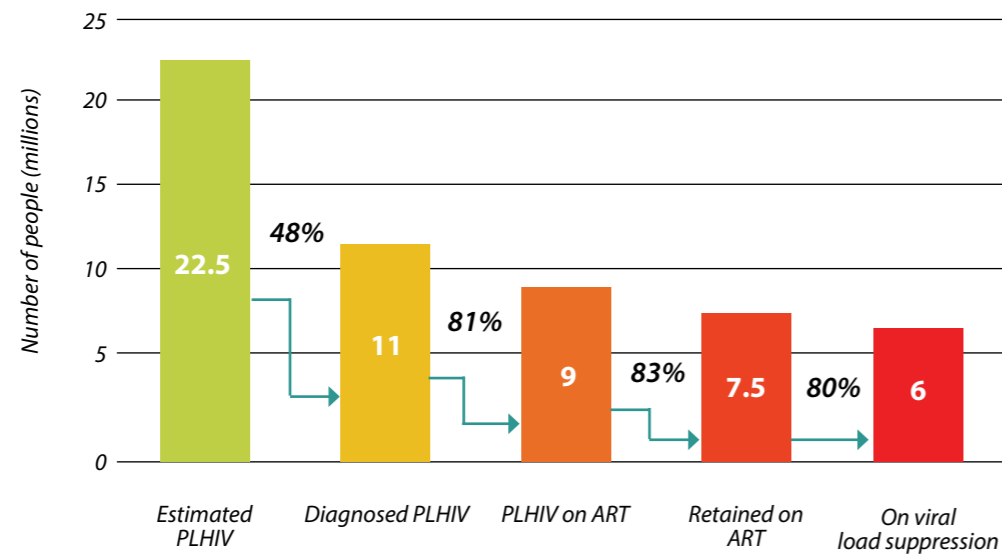
- **Title.** All HIV cascades should have a title that illustrates (a) service area, e.g., full CoPCT, or specific prevention, care, or treatment elements; (b) geographic location or scope; (c) KP focus (as applicable); and (d) targeted time period, with month/year if possible.
- **Vertical axis.** The vertical axis can represent numbers (either hundreds, thousands, or higher, as applicable) or percentages of KPs, with a title that may indicate “persons,” the specific KP of interest, or “percent.”
- **Horizontal axis.** Cascade bar titles should be consistent over time and place and reflect the data that are available and routinely collected. To the degree possible, adhering to the bar titles presented in this document will provide a comprehensive illustration of the CoPCT cascade.
- **Cascade column values (top).** Putting numerical values at the top of each relevant column makes it easy for others to interpret the cascade and to use the information for programmatic quality improvement.
- **Proportions.** Arrows linking cascade bars are labeled with percentages that indicate the proportion of KP members moving across each step of the CoPCT cascade.
- **Data source.** Whenever possible, CoPCT cascades should list the relevant data sources at the bottom of the graph.

The following present examples of cascades drawn from the HIV literature to inform programmatic management decisions.

Examples of HIV CoPCT cascades

The following are examples of HIV CoPCT cascades from a variety of geographic settings at the national to program level and among a variety of key population groups.

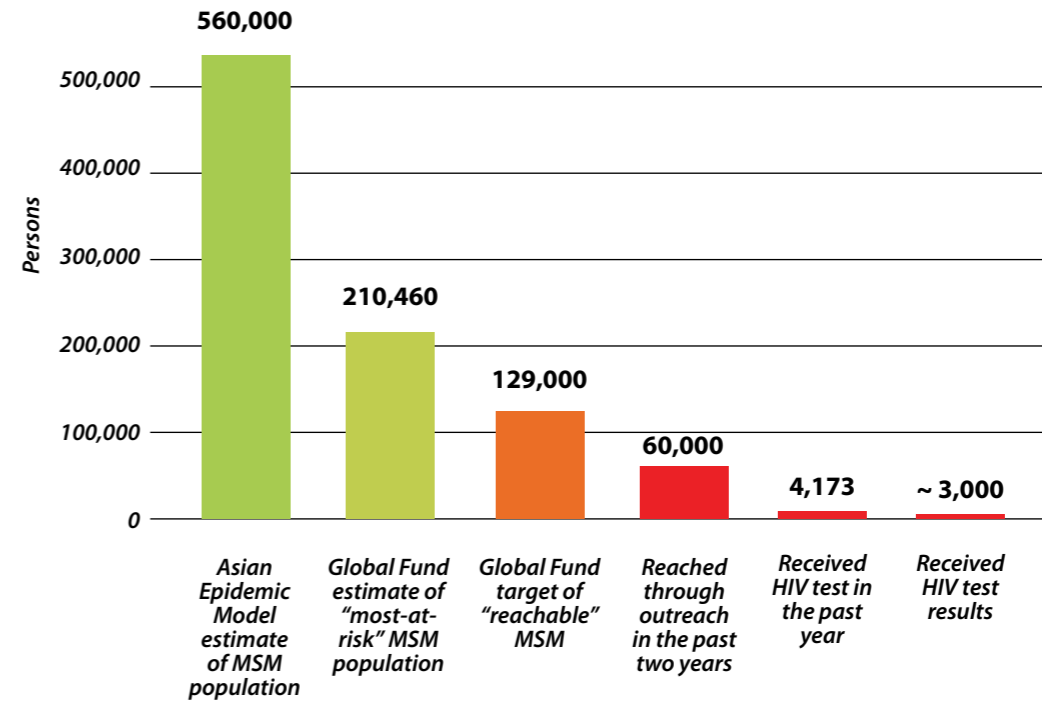
Figure 4 | HIV treatment cascade for people aged 15 years and over in sub-Saharan Africa, 2014



Source: UNAIDS 2014 estimates, DHS 2008-2014, GARPR 2015, Barth RE, van der Loeff MR, et al.

HIV cascade data from an entire region: Sub-Saharan Africa. This example uses estimates of PLHIV in the region and aggregated data from multiple countries to show the HIV cascade in Sub-Saharan Africa. Within these aggregate data are key populations in the region who are far less likely to be diagnosed, treated, and retained on ART because of substantial stigma and discrimination and adverse policy and legal environments.

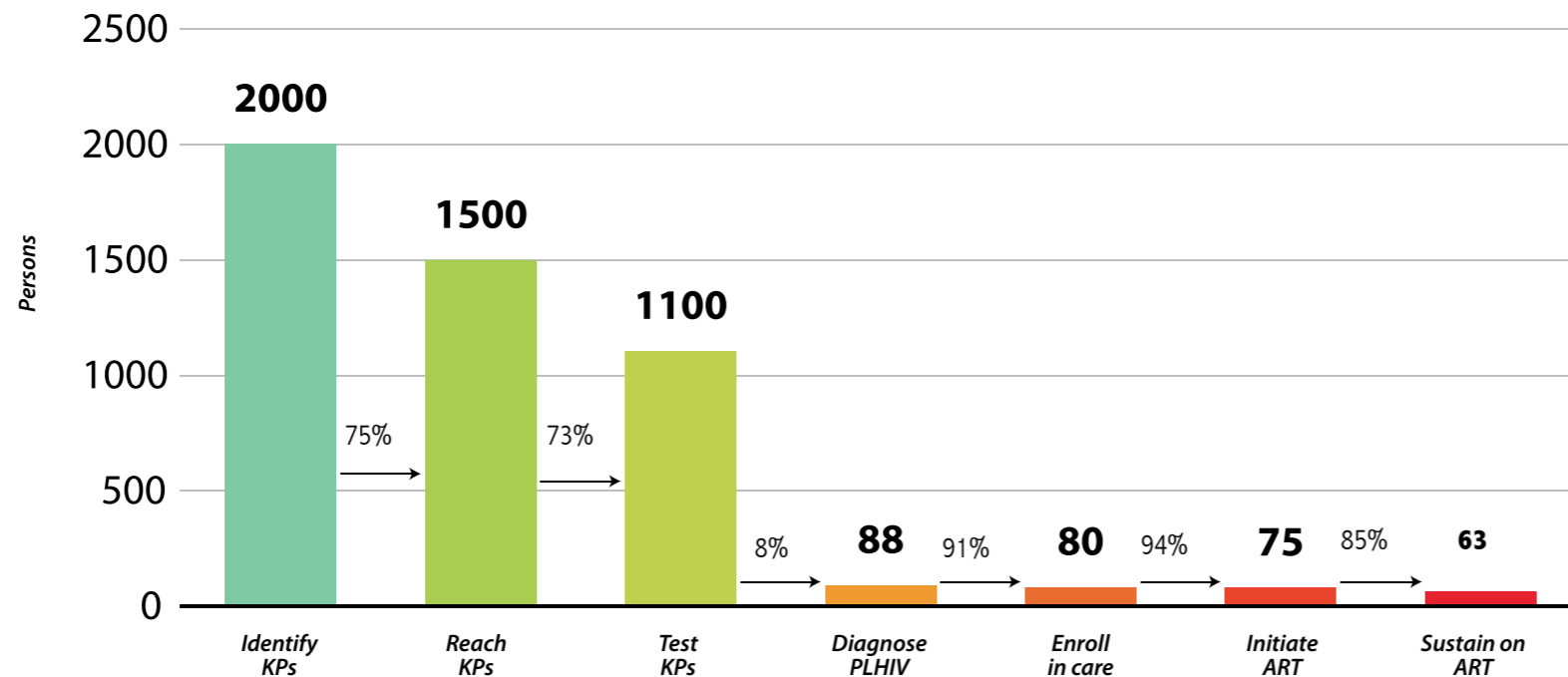
Figure 5 | Global Fund coverage of MSM in Thailand



Source: Wolf, C. Thailand Global Fund Round B External Evaluation, 2012

The HIV cascade from size estimates to HIV testing among MSM at the national level in Thailand. This analysis as part of Global Fund external evaluation used data from national MSM size estimates, agreed upon targets, and service provision data consisting of MSM reached by outreach workers, those HIV-tested, and finally those who received their HIV test results. The figure convincingly shows the gaps in HIV testing compared to the need. The analysis also pinpointed the need to improve data systems so that they reliably but ethically measure the number of MSM who present at various services sites.

Figure 6 | HIV CoPCT cascade performance of Province D, Vietnam, with predominantly key populations, 2013

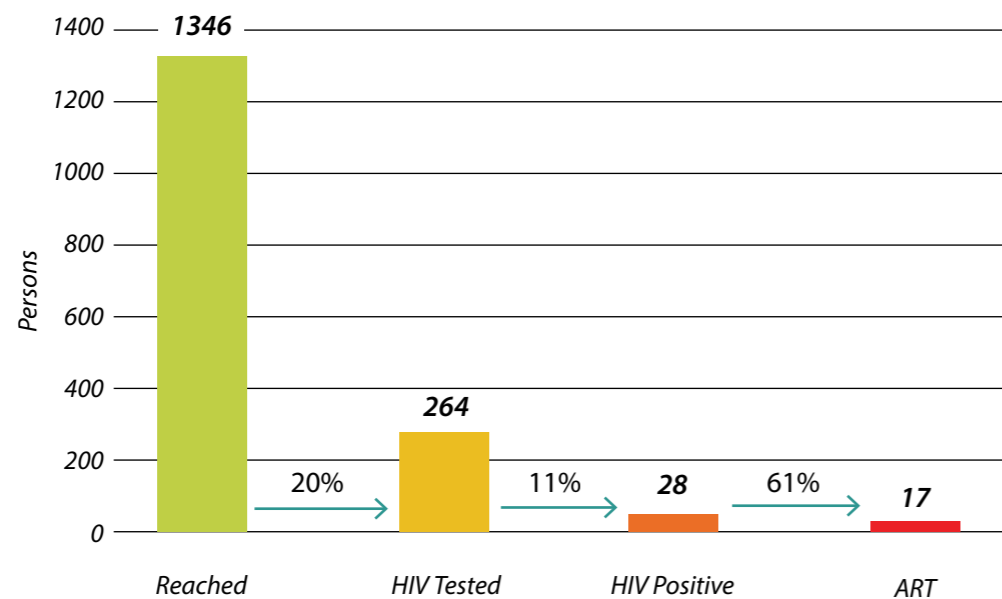


Source: Annual Report, Vietnam, Provincial AIDS Committee of Province D, 2013

A full HIV CoPCT cascade showing provincial coverage of key populations. Using data from HIV size estimates of key populations and data on outreach, HIV testing, and ART, a province in Vietnam was able to analyze its performance in reaching predominantly key populations (the epidemic setting is highly concentrated) with prevention, including HIV testing, and sustainable ART for HIV-positive individuals.

The next examples show how data from NGOs and governments, if ethically and reliably collected from key populations, can be useful in monitoring the HIV CoPCT cascade for locally-designed programs that are trying ensure that their clients are accessing appropriate services.

Figure 7 | HIV cascade performance for Sisters, an NGO serving transgender women in Pattaya, Thailand during January – March, 2015



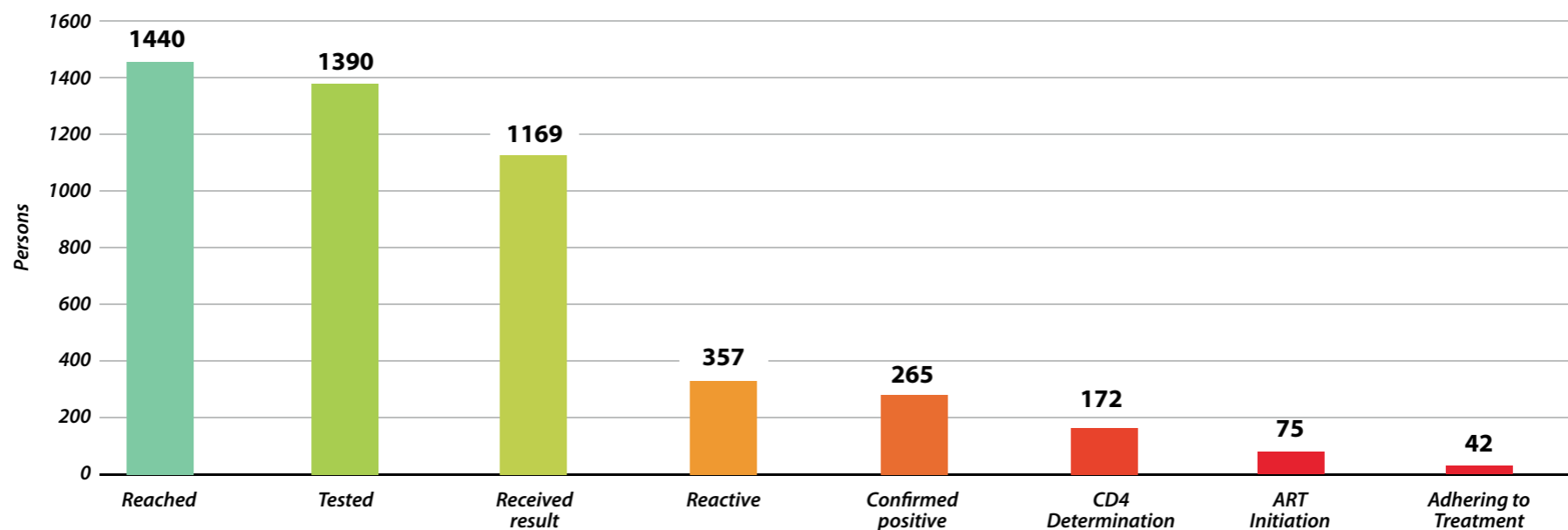
Source: Program data, Sisters and USAID LINKAGES Project, 2015

A transgender-led NGO in Thailand monitors its own performance in serving its population with HIV prevention, HIV testing, and ARV treatment. In this example, Sisters, a local Thai NGO serving transgender people, established a program to meet the HIV prevention and treatment needs of the clients they serve. An analysis of their program data showed the following:

- In one quarter, they were able to reach 1,346 transgender people with individual and small group interventions. In that same quarter, only 264 individuals (20% of those reached) were tested for HIV by the organization, suggesting that a huge unmet need for HIV testing among transgender people still exists.
- About 11% (28 out of 264 individuals) of those tested were HIV-positive, showing that the program is successfully reaching a relatively high level of clients who are in need of ART.
- In that same quarter, the program was able to place 61% of HIV-positive transgender people (17 out of 28) on ART. In Thailand, where a ‘Test and Treat’ policy now exists, these data suggest that the program is making significant progress in ensuring that their HIV-positive clients are obtaining fast access to ART.

One word of caution: The HIV cascade data presented here do not consist of a cohort of individuals followed over time. This is because programs that offer outreach, HIV testing, and ART often add clients at various points in the HIV cascade. People not exposed to the program’s outreach services may decide to use its HIV testing services because they have heard about it from friends or other services. Likewise, people already HIV-positive may come to receive ART if they have heard from their networks that key population-friendly treatment exists. Thus, the analysis of HIV cascade data in a specific time period needs to take into consideration these client flow factors.

Figure 8 | HIV cascade performance and monitoring for combined NGO-government program serving people who inject drugs in the Cebu Tri-City area, Philippines during a two-year time period



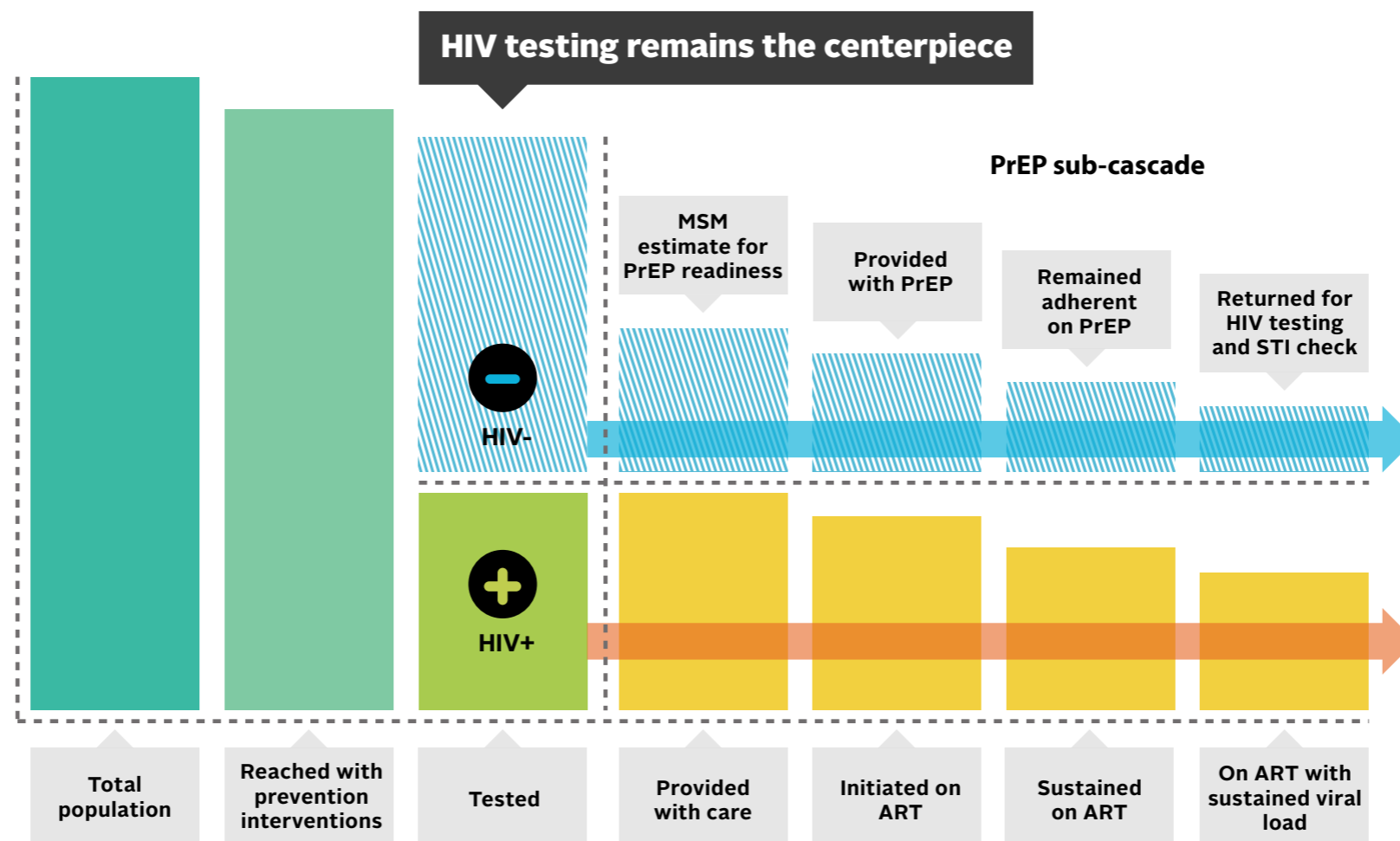
Source: Program data, USAID Reaching Out to Most-at-Risk Populations (ROMP) Project, FHI 360, 2015

HIV CoPCT cascade monitoring and performance data for a joint NGO-government program to promote treatment access for people who inject drugs in the Philippines. The program carefully monitored program reach, HIV testing, and treatment access over a two-year time period. In this example, an extensive analysis of the HIV cascade and reasons for loss-to-follow up determined the following:

- 221 PWID received an HIV test through the project but did not receive their test result and were subsequently lost to follow-up (including 25 HIV-reactive individuals). As HTC centers in the Cebu Tri-City area conduct testing with a rapid test reagent, this “leak” could have been virtually eliminated if same-day test results had been provided, but clients were sent home and told to return another day for results.

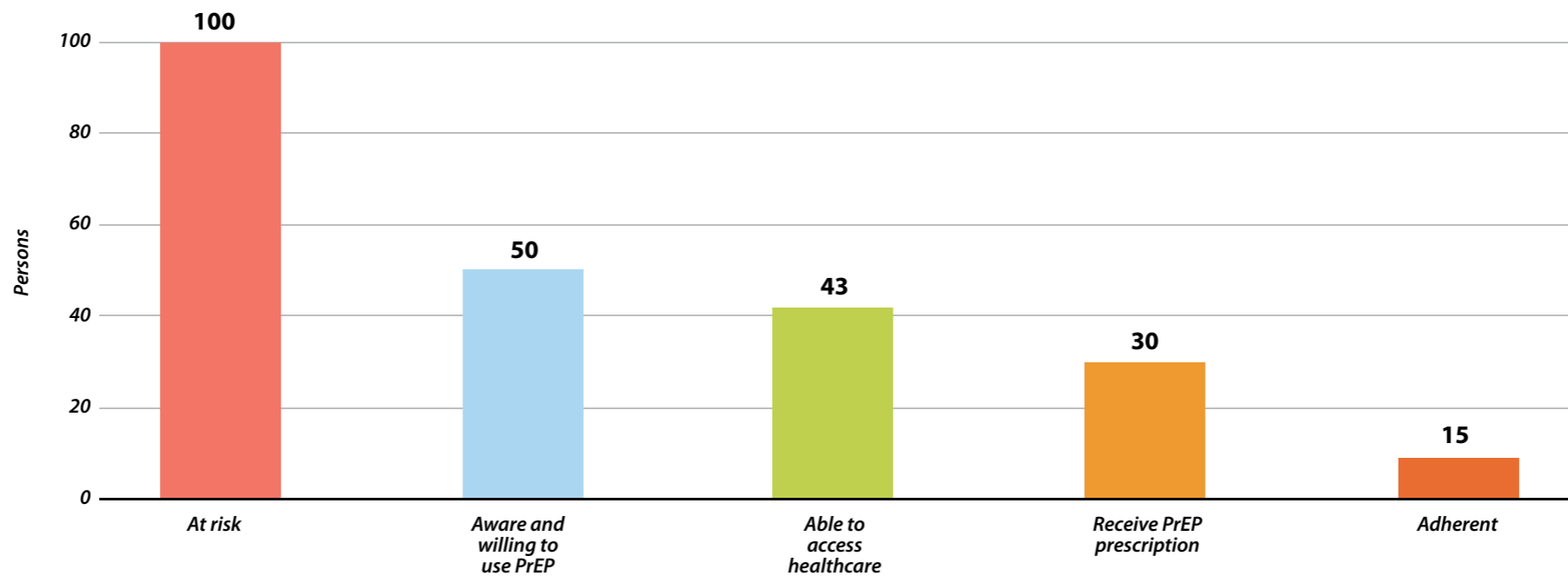
- 26% (n=92) of those screened positive did not receive a confirmed positive result. There was only one known case of a reactive screening test with an indeterminate Western Blot (WB) result which later turned out to be positive. This leak represents individuals who did not return to receive the results of their WB confirmatory test (N=61), tests which had still not been processed by the end of the reporting period (N=28), and individuals screened positive who did not consent to WB testing (n=2). Project staff report delays up to (and in some cases exceeding) one month to ship blood samples to Manila for WB processing and receive results.
- 35% (n=93) of those confirmed positive did not receive a CD4 test. There are two primary explanations for this. First, only one healthcare facility in the area, the Social Hygiene Clinic, was equipped to conduct CD4 tests. They also conducted testing only one day per month and required samples to be drawn and delivered before noon on the same day, which was unrealistic for many PWID; and they had only a limited number of “slots” for PWID clients. Second, while the clinic did secure a point-of-care CD4 machine, clinic staff experienced difficulty maintaining a supply of testing reagent.
- 67% (n=116) of those who received a CD4 screening were eligible for ART under the current Philippines National Department of Health guidelines (CD4<500 mm³) but only 65% of those (n=75) actually initiated treatment. Explanations include financial difficulties (not all required procedures are covered free-of-charge by existing programs), difficulties accessing PhilHealth social benefits, and reluctance on the part of some PWID to start treatment, due mainly to fears of side effects.
- 77% of those confirmed HIV-positive over a two-year period (257 out of 332) had not started on ART. Furthermore, only just over half of those who started treatment have been retained, primarily due to the lack of a case management system that helps PWID to remain in the health system.

Figure 9 | Hypothetical HIV CoPCT cascade for MSM with PrEP sub-cascade



Hypothetical HIV CoPCT cascade for MSM with a PrEP sub-cascade. This figure provides an example of what a comprehensive program serving the MSM community could track and monitor as PrEP is introduced into the community. It illustrates that HIV testing remains the centerpiece of the entire package of services since an individual’s HIV status determines their course of action. The figure also serves as a reminder that maximizing adherence and minimizing loss-to-follow-up is key, whether a client is on ART or PrEP.

Figure 10 | PrEP care cascade among men who have sex with men in Atlanta, Georgia, USA



Source: Kelley CF et al. Applying a PrEP Continuum of Care for Men who Have Sex with Men in Atlanta, GA. *Clinical Infectious Diseases*, online edition, 2015. doi: 10.1093/cid/civ664

The coming scale-up of PrEP necessitates new cascades that take into consideration eligibility, demand, access, equity, and adherence. PrEP is changing the landscape of HIV prevention globally. In this example, researchers from Emory University analyzed a cohort of MSM in Atlanta, Georgia, USA to construct a hypothetical PrEP cascade that estimates risk, awareness and willingness to use PrEP, access, receipt of a PrEP prescription, and finally adherence. These stages are particularly important to measure in PrEP demonstration sites so that scaled-up PrEP programs know how to minimize loss-to-follow-up and encourage users to regularly return for HIV testing and STI checks.

Additional presentations of HIV CoPCT services data

Cascade graphs like the previous examples visually display leaks in the HIV service system, illustrating where KPs may not be accessing CoPCT services and receiving the services they need. CoPCT utilization data can also be used for the following:

- 1. Indicator dashboards.** This data visualization tool can provide implementers with an “at-a-glance” listing of key cascade indicators. While dashboards do not track individual KP members as they progress through the CoPCT, they can provide a cross-sectional representation of different KPs at different stages of the cascade.
- 2. Trend graphs.** Trend graphs are particularly useful when implementers assess progress or improvements of particular indicators over time.

6. Strategies, Resources, and Tools for Strengthening HIV CoPCT Cascades for Key Populations



WHO consolidated guidelines

There are a number of strategies, resources, and tools available to help implementers understand, apply, and strengthen HIV CoPCT cascades for KPs. The most comprehensive to date is the document, *Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations*, published by WHO in 2014. This document provides a diverse set of strategies and case studies on evidence-based interventions for sex workers, MSM, transgender people, PWID, and people in prisons and other closed settings. The online version offers related links to additional resources.

WHO’s *Consolidated Strategic Information Guidelines for HIV in the Health Sector*, published in 2015, consolidates, prioritizes and describes key indicators to monitor the national and global response of the health sector to HIV. Its goal is to help countries choose, collect, and systematically analyze strategic information to guide the health sector response to HIV and can be used to support quality care along the health sector cascade of HIV services.

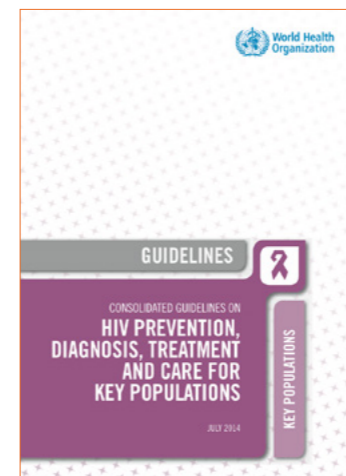


Figure 11 | **Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations**

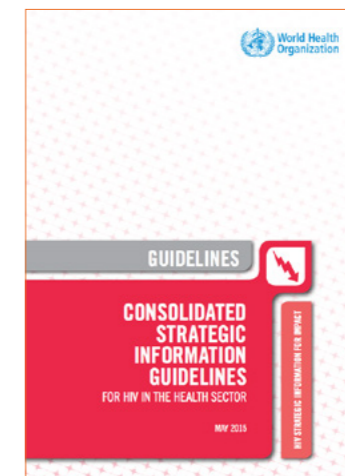


Figure 12 | **Consolidated Strategic Information Guidelines for HIV in the Health Sector**

Key population implementation tools

After publication of the WHO guidelines, community representatives from KP groups expressed the need to develop implementation tools, building on the guidelines with practical applications. Two of these documents, *Implementing Comprehensive HIV/STI Programmes with Sex Workers: Practical Approaches from Collaborative Interventions* – known as the Sex Worker Implementation Tool (SWIT) and *Implementing comprehensive HIV and STI programmes with MSM: practical guidance for collaborative interventions* – known as the MSM Implementation Tool (MSMIT) – are available here or by clicking on the right. Implementation tools for other KPs, entitled TRANSIT, and IDUIT, are currently in development and will be cited in future editions of the Cascade Framework.



Figure 13 | *Implementing comprehensive HIV/STI programmes with sex workers: Practical approaches from collaborative interventions*

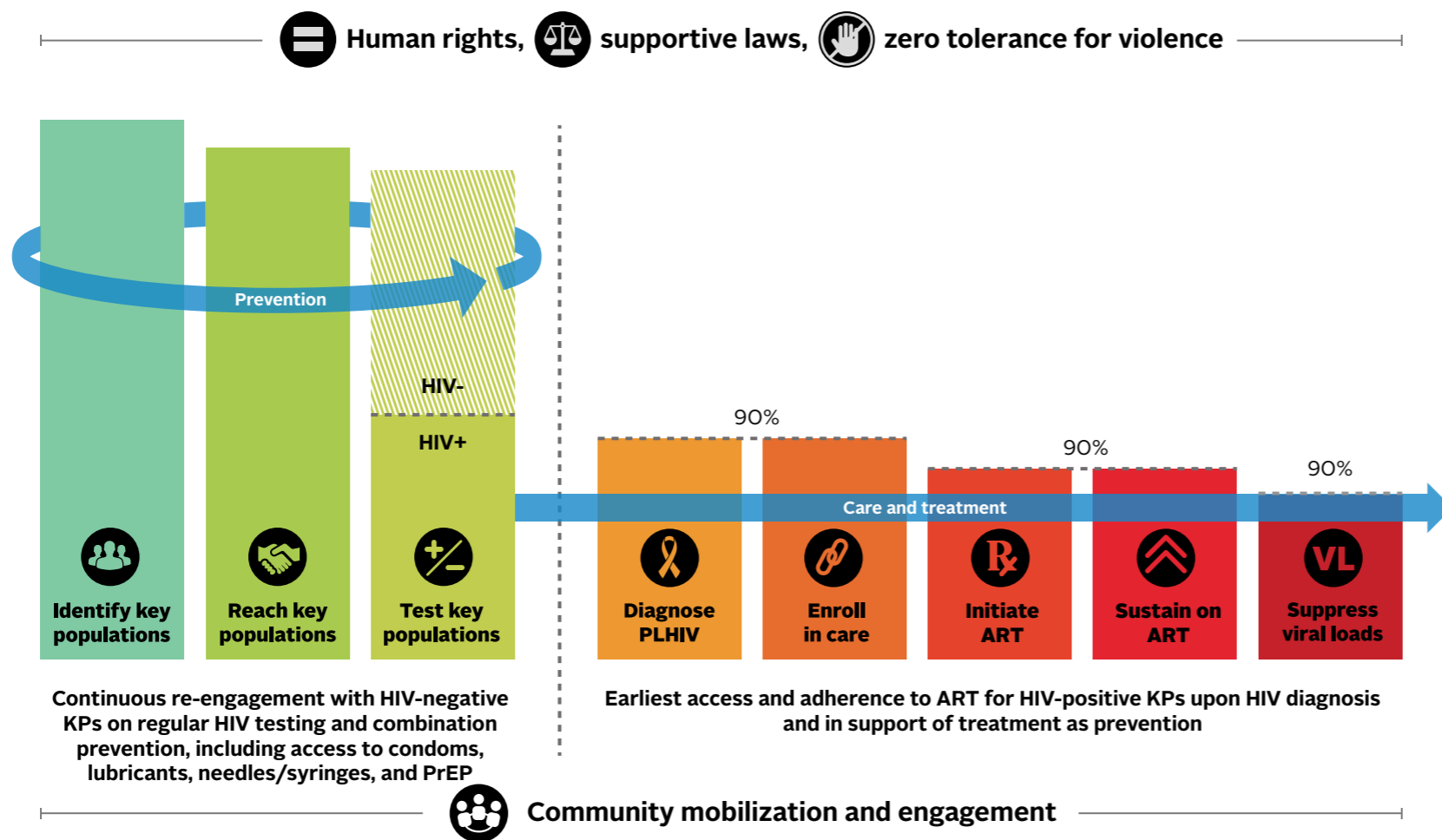


Figure 14 | *Implementing comprehensive HIV and STI programmes with men who have sex with men: practical guidance for collaborative interventions.*

Major approaches and recent evidence

To help familiarize implementers with major approaches and recent supporting evidence, Figure 14 shows each step in the HIV CoPCT cascade. With the cursor, roll over ■ (square) to learn the major approaches for the corresponding step; roll over ▲ (triangle) to learn about recent supporting evidence. These resources will be updated in the online version of the Framework to reflect new advances each year. For direct access to links for resources and tools, please see the next page.

Figure 15 | The HIV Continuum of Prevention, Care, and Treatment Cascade



Links to cascade resources and tools

Use your cursor to roll over the bulleted items and click on the associated links.



Identify key populations

- UNAIDS Estimating the size of most-at-risk populations



Reach key populations

- USAID SMART TA, Enhanced outreach approach in Vietnam: Strategy and user guide
- Avahan Project, Peer educator training manual
- Avahan Project, Advanced peer education
- Standards for peer education and outreach program for sex workers from Kenya
- NASCOP, 2013. My Life, My Power: A Training Curriculum for Peer Educators and HIV Prevention and Risk Reduction Among MSM in Kenya
- UNAIDS, Unique identifiers meeting report 2009
- WHO, 2015. Brief Sexuality-Related Communication: Recommendations for a Public Health Approach
- FHI 360, 2011. "I am Someone's Hope: A Training Manual for Peer Educators of Female Sex Workers in HIV and AIDS Prevention
- FHI 360, 2011. "It's My Turn: HIV Prevention and Care Training Manual and Tools for Peer Educators of MSM"



Test key populations

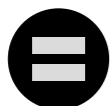
- UNAIDS 90-90-90 strategy summary
- WHO, Consolidated guidelines on HIV testing services
- WHO, Questions and answers on PrEP for MSM
- UNAIDS, Short Technical Update on HIV Self-Testing
- PEPFAR, Technical guidance on combination HIV prevention for MSM



Enroll PLHIV in care and sustainable ART to reduce viral load

- Maximizing the benefits of ART for key populations
- Training package for health providers to reduce stigma in healthcare settings
- MARPs Africa MSM training course for health care professionals
- ART and injection drug users
- Treatment and care for HIV-positive injection drug users
- UNAIDS, GNP+, 2013. Positive Health, Dignity and Prevention: Operational Guidelines





Human rights, supportive laws, zero tolerance for violence

- INPUD, GNP+, Advancing the sexual and reproductive health and human rights of injection drug users living with HIV
- International HIV/AIDS Alliance, Sex Work, Violence, and HIV: A guide for programs with sex workers
- Bill & Melinda Gates Foundation, Community-led crisis response systems – A handbook
- Sex Worker Empowerment, Advocacy, and Training, Work Wise: Sex orker handbook on human rights, health, and violence
- AIDSTAR-One, Gender strategies in concentrated epidemics: Case study series
- Blueprint for the provision of comprehensive care for trans persons and their communities in the Caribbean and other Anglophone countries
- Integrating gender into programs with most-at-risk populations
- Annotated bibliography: Training and programming resources on gender-based violence against key populations
- Global Network of Sex Work Projects, Needs and rights of trans sex workers



Community mobilization and engagement

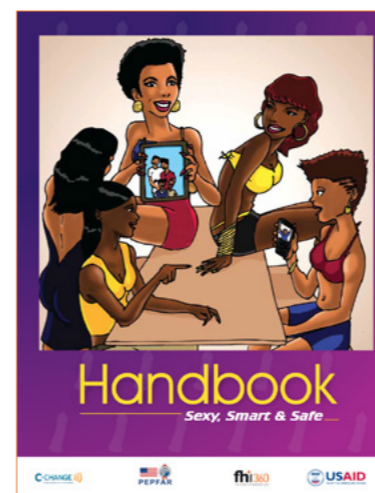
- International Treatment Preparedness Coalition, Advocacy for community treatment toolkit
- JAIDS Supplement, Strategic roles for health communication in combination HIV prevention and care programs
- Global Forum on MSM & HIV, Johns Hopkins University, Promoting health of MSM worldwide: A training curriculum for providers
- Harm Reduction Coalition, Understanding drug-related stigma: Tools for better practice and social change
- Southern Africa HIV and AIDS Information Dissemination Service, HIV & Gender-based Violence (GBV) prevention for transgender people
- Southern Africa HIV and AIDS Information Dissemination Service, LGBTI populations and HIV prevention toolkits

Creating demand along the cascade

Creating demand for integrated HIV prevention, care, and treatment programs along the cascade is an integral part of service delivery for sex workers, MSM, transgender people, and PWID. By connecting different components of the cascade, demand creation strategies use social and behavior change communication (SBCC) interventions to support uptake of HIV services, including biomedical products and services, and they affect health-related decisions within and outside of the clinical setting.

On the demand side, SBCC can motivate KPs to get tested and obtain their results; it can promote access to treatment; and it can link KPs living with HIV to care and support. On the supply side, SBCC can increase treatment adherence and retention in care through better interpersonal communications between providers and KP members. Effective adherence communications include a combination of training, provider job aids, client materials, and targeted mass and social media, as well as mHealth SMS reminders and virtual buddy systems.

Figure 16 | Examples of demand-side (left) and supply-side SBCC materials for key populations



Handbook: Sexy, Smart and Safe, FHI 360



Promoting the Health of Men who Have Sex with Men Worldwide, The Johns Hopkins University

As implementers consider demand creation strategies to improve KP service use along the cascade, tips for effective SBCC programming include:

- **Establish and ensure the safety and confidentiality of KP members** who both contribute to demand creation strategies and who are the recipients of demand creation activities.
- **Actively involve KP members** themselves in the development and implementation of demand creation strategies, including analysis of facilitators of and barriers to service use, formative research, and intervention design.
- **Work with KP members to identify target audiences** within KP groups based on similar lifestyles and needs, to increase relevance and reach of SBCC.
- **Use multicomponent interventions** that coordinate a range of communication channels and activities to reinforce messages and address barriers to behavioral and social norms and structural change.
- **Foster open and effective client-provider communications** to help providers engage and treat KP clients in an atmosphere of safety, confidentiality, and mutual respect.

Ten continuum connectors

The “at-a-glance” table below presents 10 evidence-based connectors. These connectors expand upon the major approaches and can facilitate KP engagement, retention, and flow through the HIV CoPCT cascade.

Table 2 | Ten continuum connectors, at a glance

Connector	Description	Key actions	Resources
1 Foster a supportive environment	“Environment” refers to the legal, political, cultural, and social factors that facilitate or impede KP access to services. Implementers, advocates, and KP members can work together to change conditions in large and small ways.	<ul style="list-style-type: none"> • Support opportunities for KP members to come together, to address conditions they have identified themselves. • Assess your own organization’s environment, including staffing, to determine ways it can better support KPs. • Engage KP and non-KP community leaders to change laws or reduce enforcement. • Sensitize police to treat KPs with dignity and not to arrest outreach workers. 	<ul style="list-style-type: none"> • Canadian HIV/AIDS Legal Network, International HIV/AIDS Alliance, Open Society Institute, “Nothing about us without us”: Greater, meaningful involvement of people who use illegal drugs • PAHO, Improving access of key populations to comprehensive HIV health services
2 Facilitate community mobilization and empowerment	Community mobilization and empowerment of KPs for both prevention and treatment are fundamental to a rights-based approach to HIV. Empowered communities ensure that services along the cascade are appropriate and acceptable to KP members.	<ul style="list-style-type: none"> • Recognize that KPs are essential partners and leaders in the design, planning, implementation, and evaluation of HIV services (including information and education on HIV, sexual orientation and gender identity, GBV and intimate partner violence, sexual and reproductive health, life-skills and positive health dignity and prevention). • Policies and programs are more effective when affected populations take part in their development. • Plan for and facilitate processes that enable KP members to collectively address the structural constraints to their health, human rights, and well-being. • Support KPs to lead the scale-up of proven interventions to other members of their community. Empowered KPs can aid interactions with hidden and hard-to-reach members that have weak or no links to the HIV cascade. 	<ul style="list-style-type: none"> • Kerrigan et al., The Lancet, A community empowerment approach to the HIV response among sex workers: Effectiveness, challenges, and considerations for implementation and scale-up • Futures Group, From isolation to solidarity: How community mobilization underpins HIV prevention in the Avahan India AIDS Initiative • INPUD, GNP+, MSMGF, NSWP, ITPC, Global action with local impact: Why advocacy matters

Connector	Description	Key actions	Resources
<p>3 Strengthen institutional capacity of KP organizations and networks</p>	<p>Strong KP-led community organizations and networks contribute to high levels of KP participation and retention in the cascade. Without them, short-term gains in accessing KPs are unlikely to be sustained.</p>	<ul style="list-style-type: none"> • Direct resources to support development of KP-led organizations and networks, including leadership skills of KP members. • Ensure meaningful participation of KP-led organizations in HIV policy and programmatic systems, including planning and funding committees. • Strengthen linkages among KP organizations and between KP organizations and HIV service providers, police, and social service agencies. • Build organizational capacity of KP groups in program management, financial management, and resource mobilization. 	<ul style="list-style-type: none"> • AIDSTAR-Two, Supporting key populations and civil society around the world to advance the AIDS response • Global Fund, Key populations action plan 2014-2017 • NSWP, Global report: Good practices in sex worker-led HIV programming • Pact, Organizational capacity assessment (OCA) handbook
<p>4 Address family and community stigma and discrimination</p>	<p>KPs experience stigma and discrimination in their families and communities, at work and school. Addressing social stigma and discrimination can improve KP mental health, reduce risk behaviors, and facilitate access to services.</p>	<ul style="list-style-type: none"> • Raise awareness regarding the sociocultural norms and behaviors that contribute to stigmatizing environments for KPs. • Involve KPs in the leadership, design, implementation, and monitoring of stigma reduction programs. • Consider peer-led interventions that help members of KPs empower one another. 	<ul style="list-style-type: none"> • USAID Health Policy Initiative, Programmatic guidance for reducing HIV and key population stigma and discrimination • Health Policy Project, Understanding and challenging HIV and key population stigma and discrimination: Caribbean facilitator's guide • GNP+, ICW, IPPF, UNAIDS, PLHIV stigma index

Connector	Description	Key actions	Resources
<p>5 Respond to, reduce, and prevent GBV and other violence</p>	<p>KPs experience gender-based and other forms of violence stemming from rigid gender norms, punitive laws, and vulnerabilities. Addressing the incidence and structural causes of violence empowers KP members and improves service access.</p>	<ul style="list-style-type: none"> • Integrate violence screening, counseling, post-exposure prophylaxis, and emergency contraception within existing clinical HIV services for KPs. • Establish KP protection networks and community-led crisis response systems, including iMonitor mobile technology that allows KP members to alert other KPs, civil society organizations, and decision makers. • Develop campaigns and trainings directed at police to decrease GBV against KPs. • Implement gender-transformative behavior change communications and legal reforms designed to promote equitable norms and reduce GBV directed at KPs. 	<ul style="list-style-type: none"> • AIDSTAR-Two and International HIV/AIDS Alliance, Technical Paper: Review of training and programming resources on gender-based violence against key populations • International HIV/AIDS Alliance, Sex Work, Violence and HIV: Guide for programs with sex workers • USAID Health Policy Initiative, Gender identity and violence in MSM and transgenders: Policy implications for HIV services • Gates Foundation, Community led crisis response systems: A guide to implementation • AIDSTAR-One, Program guide for integrating GBV prevention and response in PEPFAR programs
<p>6 Engage peers as educators, navigators, and treatment supporters</p>	<p>Trained and supervised KP members help others like themselves navigate the HIV service system, including testing and services like housing and mental health. Treatment supporters ensure that HIV-positive KP remain adherent and in care.</p>	<ul style="list-style-type: none"> • Specify the KPs to be served and match peers who understand their language, customs, and needs. • Implement relevant trainings to ensure peers’ success, including facilitation and listening skills. • Design a well-defined system that supports peer navigators as members of the HIV care team. • Consider applying an enhanced outreach approach that consists of a menu of interventions across the CoPCT cascade. 	<ul style="list-style-type: none"> • USAID Project SEARCH, Peer education: Rigorous evidence – usable results • International Association of Physicians in AIDS Care and National Minority AIDS Council, Optimizing entry into and retention in HIV care and ART adherence for PLWHA • SMART TA, Enhanced outreach approach: Strategy and user guide

Connector	Description	Key actions	Resources
<p>7 Share mobile technology</p>	<p>Mobile technology increases the capacity of implementers and KP members to communicate about HIV services, collaborate in their development, and manage and participate in them.</p>	<ul style="list-style-type: none"> • Implement mobile applications such as CommCare, and Magpi, and SyrEx to confidentially collect individual KP contacts for outreach and tracking through the CoPCT cascade. • Use applications such as Telerivet or Frontline Cloud to send targeted SMS for prevention messages, clinical reminders, or to re-engage those lost-to-follow-up. 	<ul style="list-style-type: none"> • Digital Culture & Education, Innovative programmatic approaches to HIV prevention and care services for gay men, other MSM and transgender person using ICT • K4Health, The mHealth planning guide: Key considerations for integrating mobile technology into health programs • SyrEx installation files and manuals • Kopernik, Impact tracker • Medic Mobile
<p>8 Apply a mix of service delivery models</p>	<p>KPs remain underserved by traditional health facilities. With KP involvement, a flexible mix of community- and facility-based models increases service acceptability, accessibility, and sustainability.</p>	<ul style="list-style-type: none"> • Identify local KP “hotspots” to tailor services, using epidemiological reviews and Priorities for Local AIDS Control Efforts (PLACE) assessments. • Depending on KP needs, use a mix of facilities dedicated to KPs, hybrid government/NGO clinics, and service sites led by KP members themselves. • Extend services through mobile outreach, drop-in centers, and venue-based approaches, which provide screenings and referrals. 	<ul style="list-style-type: none"> • MEASURE Evaluation, PLACE: Priorities for local AIDS control • NSWP, Global report: Good practices in sex worker-led HIV programming • Pawa et al., PLOS One, Reducing HIV risk among transgender women in Thailand: A quasi-experimental evaluation of the Sisters program • University of California, San Francisco, 2010. T-SISTA: Resource Guide for Adapting SISTA for Transwomen

Connector	Description	Key actions	Resources
<p>9 Engage and educate health care workers</p>	<p>Health care workers (HCWs) – including clinical and nonclinical staff – are the primary point of contact for KPs in the HIV service system and play a large role in KP access and retention. KPs have a right to quality, sensitive health care.</p>	<ul style="list-style-type: none"> • Advocate for and implement medical education and HCW trainings specific to KP needs that reduce stigma and discrimination in the health care setting. • Engage KP-led organizations as essential partners in HCW sensitivity training. • Involve KP communities in the design of services, including identifying locations that are accessible and convenient to KPs. • Schedule regular, dependable service hours that match the lives of KPs. • Motivate friendly providers to advocate for workplace and systemic changes that support KPs. 	<ul style="list-style-type: none"> • WHO, Everybody’s business: Strengthening health systems to improve health outcomes • Health Policy Project, Measuring HIV stigma and discrimination among health facility staff • Fenway Institute, National LGBT health education center learning modules • Desmond Tutu HIV Foundation, 2013. Health care provision for MSM, sex workers, and PWID. Desmond Tutu HIV Foundation: Cape Town. • International AIDS Society, 2014. A Code of Conduct for HIV and Health professionals: Strengthening Human Rights Approaches for Health. • Anova Health Institute, 2014. MSM competency trainings 1: psychosocial factors in working with MSM and 2: medical management of MSM health – Participant Workbook. • Anova Health Institute, 2015. From top to bottom: a sex-positive approach for men who have sex with men – a manual for healthcare providers.

Connector	Description	Key actions	Resources
<p>10 Integrate services for KPs</p>	<p>Integrating HIV services for KPs with other health and social services efficiently addresses co-occurring vulnerabilities and supports retention in the cascade, especially for young KPs.</p>	<ul style="list-style-type: none"> • Coordinate with providers and policymakers to establish service delivery guidelines, trainings, commodity procurement, and monitoring and evaluation. • Integrate transgender HIV services to include hormone therapy, and PWID HIV services to include harm reduction programming, including sterile needle/ syringe programs and opioid substitution therapy. • Provide sexual and reproductive health care with HIV services, including screening and treatment for sexually transmitted infections; for female KP members, include cervical cancer screening, contraception and pregnancy care, and prevention of mother-to-child HIV transmission. • Prevent and manage co-infections, including tuberculosis and hepatitis A, B, and C. • Screen for and manage mental health disorders, including alcohol abuse and other substance use. 	<ul style="list-style-type: none"> • USAID, Key populations: Targeted approaches toward an AIDS-free generation • Médecins du Monde, INPUD, Nobody left behind: Importance of integrating people who inject drugs into HCV treatment programs • GNP+, ICW, IPPF, UNAIDS, UNFPA, WHO, Young Positives, Rapid assessment tool for sexual and reproductive health and HIV linkages • Khmer HIV/AIDS NGO Alliance, Standard package of activities: MSM • Delany-Moretlwe et al., JIAS, Providing comprehensive health services for young key populations: needs, barriers and gaps • International HIV and AIDS Alliance, 2015. Integration works! A guide to facilitating a workshop on integrating sexual reproductive health and rights and HIV. • International HIV and AIDS Alliance, 2015. Sexual Reproductive Health and Rights and HIV 101 Workshop Guide. A guide to facilitating a workshop on linking up HIV and Reproductive Health and Rights with Young Key Populations.

7. Conclusion

Global efforts to prevent new HIV infections and link HIV-positive KPs into treatment and care require the concerted efforts of researchers, policymakers, providers and KPs themselves. As a component of the guidelines, tools and resources presented in this document, the cascade framework identifies “leaks” in the system, allowing resources to be targeted to interventions needed most to improve KP uptake of and retention in the continuum of HIV services. Constructing cascades will help programs monitor HIV service system performance and focus human, financial, and programmatic resources on the ultimate aim of the HIV response: viral suppression. By knowing where the drop-offs are most pronounced, decision makers and service providers can implement system improvements and service enhancements that make the greatest impact on individuals, communities, and society.

HIV CASCADE FRAMEWORK

for Key Populations

October 2015

