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Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men who have Sex with Men, and Transgender People

VOLUME I National and Sub-National Levels








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List of Acronyms

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
BSS	behavioural surveillance system
CDC	United States Centres for Disease Control and Prevention
DFID	UK Department for International Development
FHI	FHI 360
GARPR	Global AIDS Response Progress Reporting
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
IBBS	integrated biological and behavioural survey
IEC	information, education, and communication
M&E	monitoring and evaluation
MIS	management information system
NGO	nongovernmental organization
OI	opportunistic infections
PLACE	Priorities for Local AIDS Control Efforts
PPA	Priority Prevention Areas
PLHIV	people living with HIV
QA/QI	quality assurance and quality improvement
RDS	respondent-driven sampling
STI	sexually transmitted infection
TB	tuberculosis
TOR	terms of reference
UIC	unique identification code
UNAIDS	Joint United Nations Programme on HIV
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
UNODC	United Nations Office on Drugs and Crime
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

A. Rationale: We Need to Improve Monitoring & Evaluation of Programmes!

Sex workers, men who have sex with men, and transgender people are populations at higher risk for HIV infection. HIV and AIDS are having a disproportionate impact on these populations, including in countries with generalized epidemics. A systematic review of data from 38 low- and middle-income countries found that men who have sex with men were, on average, 19 times more likely to have HIV than the general population (Baral, 2007). Female sex workers in low- and middle-income countries are nearly 14 times more likely to be infected by HIV compared to women of reproductive age (Baral, 2012). Transgender people in low-and middle-income countries are 50 times as likely to have HIV compared to the general population (Baral, 2013). Preliminary data from 95 countries reporting on the indicators of the Global AIDS Response Progress Reporting in 2011 suggest that less than 20% of countries for which data were available had HIV-testing coverage of sex workers of 80% or greater. Even poorer availability and uptake of testing services was reported for men who have sex with men, with less than 10% of countries reporting 80% or greater coverage (UNAIDS, 2012a). Men who have sex with men, transgender people and sex workers also face harsh legal and policy environments while having poor access to justice and services. This increases their vulnerability to HIV and decreases their ability to cope with consequences of HIV (World Bank, 2011).

In 2012 UNAIDS produced a new tool called "*Investing for results. Results for people*", which was developed to assist countries in decision-making with respect to the allocation of resources in the AIDS response (UNAIDS, 2012b). The new investment approach supported by this tool aims to facilitate decision making by countries to ensure their HIV responses are optimally responsive to the national and local context of their unique epidemic patterns and to assist countries to set clear priorities in resource allocation, in accordance with national objectives in curbing the epidemic. Among the basic programme activities which need to be delivered at appropriate scale to respond to the local epidemiological context are integrated programmes directed towards key populations.

The primary objective of this document is the scale up of monitoring and evaluation of HIV prevention programmes serving sex workers, men who have sex with men, and transgender populations. Currently there is limited information on the implementation of programmes for the prevention and treatment of HIV infection among these populations. Few countries monitor the determinants of transmission, fewer monitor the quality and adequacy of programmes delivered to meet the needs of these populations, and fewer still rigorously assess whether the programmes actually contribute to the reduction of HIV transmission in key populations. A good monitoring and evaluation system can measure these enabling environments, the availability and quality of services, guide focused programme implementation, and assess effectiveness.

Further information on why we need to improve monitoring and evaluation of HIV programmes:

- Baral S, Sifakis F, Cleghorn F, et al., (2007), *Elevated risk for HIV infection among MSM in low- and middle-income countries: A systematic review.* PLOS Medicine.
- Baral S, Beyrer C, Muessig K, et al*., (2012), Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis*; The Lancet.
- Baral, S, Poteat T, Strömdahl S, et al., (2013), *Worldwide burden of HIV in transgender women: a systematic review and meta-analysis*. Lancet Infect Dis.
- UNAIDS, (2012a), *Together we will end AIDS.*
- UNAIDS, (2012b), *Investing for results. Results for people*.
- The World Bank, (2011), The *Global HIV Epidemics among MSM.*
- UNDP, UNAIDS, (2012), *Understanding and acting on critical enablers and development synergies.*

B. Purpose of the Operational Guidelines

The purpose of these Guidelines is to provide operational guidance for monitoring and evaluation (M&E) of HIV prevention programmes for:

- Sex workers
- Men who have sex with men
- Transgender people

Sex workers include "female, male and transgender adults and young people (18 years of age and above) who receive money or goods in exchange for sexual services, either regularly or occasionally"(UNAIDS, 2012). Sex work is consensual sex between adults, which takes many forms, and varies between and within countries and communities. Sex work may vary in the degree to which it is formal or organized.

Men who have sex with men is an inclusive public health construct used to define the sexual behaviours of males who have sex with other males, regardless of the motivation for engaging in sex or identification with any or no particular "community". The words "man" and "sex" are interpreted differently in diverse cultures and societies, as well as by the individuals involved. As a result, the term men who have sex with men covers a large variety of settings and contexts in which male-to-male sex takes place. Perhaps the most important distinction to make is one between men who share a non-heterosexual identity (i.e. gay, homosexual, bisexual or other culture-specific concepts that equate with attraction to other men) and men who view themselves as heterosexual but who engage in sex with other males for various reasons (e.g. isolation, economic compensation, sexual desire, gender scripts) (WHO, UNDP, UNAIDS, MSMGF, 2011).

Transgender is an umbrella term for persons whose gender identity and expression does not conform to the norms and expectations traditionally associated with the sex assigned to them at birth. Transgender people may self-identify as transgender, female, male, transwoman or transman, trans-sexual, hijra,

kathoey, waria or one of many other transgender identities, and may express their genders in a variety of masculine, feminine and/or androgynous ways (WHO, UNDP, UNAIDS, MSMGF, 2011).

Box 1 Focus on Adolescents

Provision of services to adolescents (age 13-19) must be adapted based on their lack of experience in negotiating use of services and, in some instances, legal barriers to use. Adolescents at higher risk may not come to static service delivery points, and services may need to be specifically targeted for them and provided on an outreach or mobile basis (where health services, information and commodities are taken to them). Thus, the essential package of targeted HIV prevention interventions for key populations should be adolescent friendly and accessible for all adolescents from key population whatever their age, legal or socio-economic status. In addition, policymakers and health care providers need to consider whether an adolescent has the capacity to consent, or 'competence' to provide consent, to medical interventions and treatment, and whether others should be involved in decision making on their behalf.

The ultimate aim is to increase the ability of sex workers, men who have sex with men and transgender people to prevent HIV infection, achieve full health, and realize their human rights.

The specific objectives of the guidelines are to:

- Support monitoring and evaluation systems that are responsive to local HIV epidemics among sex workers, men who have sex with men, and transgender people;
- Function as an advocacy tool to lobby for the inclusion of monitoring and evaluation of HIV programmes for sex workers, men who have sex with men and transgender people in existing M&E systems;
- Provide guidance for monitoring and evaluation of prevention programmes at three levels: the national, sub-national, and service delivery level;
- Recommend indicators for monitoring and evaluating HIV prevention programmes at the national, sub-national and service delivery level;
- Describe methods to estimate indicators and generic forms to collect indicator data;
- Include methods that facilitate meaningful involvement of men who have sex with men, sex workers, and transgender people in monitoring and evaluation of HIV programmes;
- Incorporate experience-based and qualitative evidence as monitoring and evaluation data sources;
- Encourage timely sharing of data between national/sub-national and service delivery levels;
- Promote the use of programme implementation pathways using input-output-coverage models;
- Facilitate use of the guideline with simple checklists, decision trees, and examples;

- Provide methods than can be used to identify and prioritize questions for operations and effectiveness research; and
- Provide links to relevant tools and resources.

The guidelines assume three levels of monitoring and evaluation that require coordination – national, sub-national and service delivery levels. The M&E system should assist in decision making, and not simply be used for reporting to government, stakeholders and donors. The objectives of monitoring and evaluation at each level are described below:

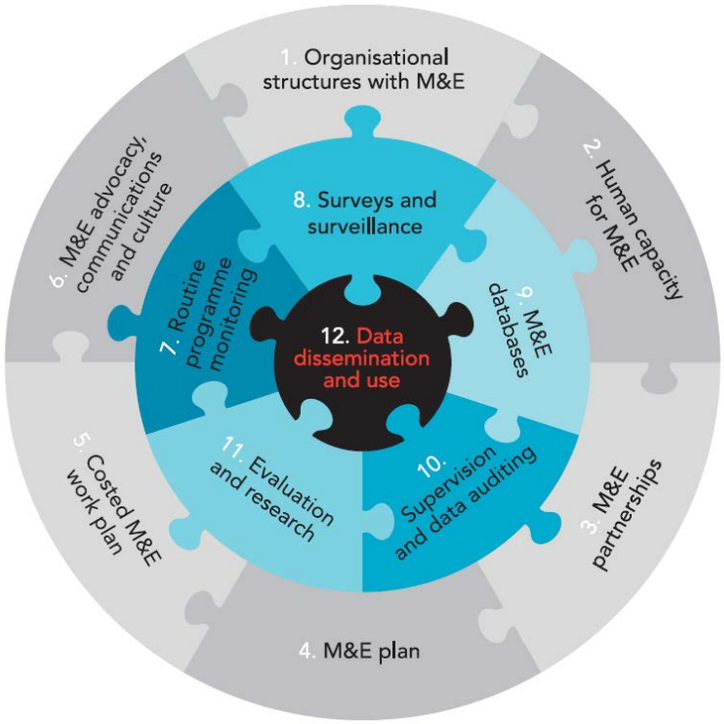
- National level: To review the epidemiology of the HIV epidemic among sex workers, men who have sex with men, and transgender people; identify the sub-national areas of the country where prevention programmes are most needed; monitor the inputs, outputs and outcomes of programmes in these areas that provide services to men who have sex with men; identify the programmes that decrease transmission risk; and work strategically with partners to implement effective interventions at sufficient scale to reduce HIV transmission among sex workers, men who have sex with men, and transgender people in a manner that respects human rights;

- Sub-national level: To review the local epidemiology of the HIV epidemic among men who have sex with men, sex workers, and transgender people; monitor programme inputs, service quality, outputs, service coverage, and programme outcomes among sex workers, men who have sex with men, and transgender people in the area; and

- Service delivery provider level: To monitor programme inputs at the service delivery level, monitor the quality of services, monitor service delivery outputs, and, where feasible, to monitor changes in behavioural, environmental, and disease outcomes among persons in the catchment area of the service delivery provider.

These *Guidelines* apply to countries with low-level, concentrated, and generalized HIV epidemics. These guidelines are compatible with the 12 components of a functional national M&E system (UNAIDS 2008) depicted in the figure below. The people, partnerships and planning (the outer circle) relevant for M&E of HIV Programmes for key populations should include members of the key populations, advocacy organizations and groups working on programme to improve the legal and policy environment.

Figure 1 Organizing Framework for a Functional National HIV M&E System – 12 Components



Courtesy of UNAIDS (2008)

These *Guidelines* are a companion document to:

- UNAIDS Guidance Note on HIV and Sex Work (UNAIDS April 2012) http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2009/JC2306_UNAIDS-guidance-note-HIV-sex-work_en.pdf
- Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people. Recommendations for a public health approach (WHO, UNDP, UNAIDS Secretariat, MSMGF 2011) http://whqlibdoc.who.int/publications/2011/9789241501750_eng.pdf
- Prevention and Treatment of HIV and other Sexually Transmitted Infections for Sex Workers in Low- and Middle-income Countries. Recommendations for a public health approach (WHO, UNFPA, UNAIDS Secretariat, NSWP 2012) http://apps.who.int/iris/bitstream/10665/77745/1/9789241504744_eng.pdf
- Investing for results. Results for people (UNAIDS 2012) http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2012/JC2359_investing-for-results_en.pdf
- UNAIDS Action Framework: Universal Access for Men who Have Sex with Men and Transgender People (UNAIDS 2009) http://data.unaids.org/pub/report/2009/jc1720_action_framework_msm_en.pdf

- A Framework for Monitoring and Evaluating HIV Prevention Programmes for Most-At-Risk Populations (UNAIDS 2008)
  http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/manual/2008/jc1519_framework_for_me_en.pdf
- U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Technical Guidance on Combination HIV Prevention for Men Who Have Sex with Men (PEPFAR May 2011)
  http://www.pepfar.gov/documents/organization/164010.pdf
- Monitoring and Evaluation Toolkit Part I and 2 (Global Fund 2011)
  http://www.theglobalfund.org/en/me/documents/toolkit/
- Operational Guidelines for Monitoring and Evaluation of HIV Programmes for People who Inject Drugs (UNAIDS in press)

Further information on the purpose of the *Guidelines*:

- UNAIDS (April 2012). Guidance Note on HIV and Sex Work.
  http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2009/JC2306_UNAIDS-guidance-note-HIV-sex-work_en.pdf
- WHO, UNDP, UNAIDS Secretariat, MSMGF (2011). Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people. Recommendations for a public health approach
  http://whqlibdoc.who.int/publications/2011/9789241501750_eng.pdf

C. Content of the Guidelines

The Guidelines are presented in four parts:

- **Introduction** contains an overview of the guideline.

- **Volume 1** "Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men and Transgender People: National and Sub-National Level" contains:

    - Introduction to the Guidelines
    - An overview of key concepts including the "8 Step Public Health Questions Model"
    - Guidance for national and sub-national levels for each of the 8 Steps. For each step, guidance is provided on the following:
        - Rationale – Why is this step important?
        - Flowchart of Key Questions, Methods and Data Use
        - How to answer key questions and use data: Overview for Step
        - Methods and Tools
        - Products and data use
        - Additional information
    - Appendix of all tools referenced throughout the *Guidelines,* a glossary of terms, and reference materials.

- **Volume 2** "Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men and Transgender People: Service Delivery Level" contains:

    - Introduction to the Guidelines
    - An overview of key concepts including the "8 Step Public Health Questions Model"
    - Guidance for service delivery providers for each of the 8 Steps. For each step, guidance is provided on the following:
        - Rationale – Why is this step important?
        - Flowchart of Key Questions, Methods and Data Use
        - How to answer key questions and use data: Overview for Step
        - Methods and Tools
        - Products and data use
        - Additional information

- **Appendix** contains all tools referenced throughout the *Guidelines,* a glossary, and references.

D. Causal Pathway: From Programmes to Prevention

The causal pathway below illustrates how a combination prevention programme reduces HIV transmission among key populations. An effective combination prevention program will ultimately reduce biologic risk of HIV transmission and lead to fewer new infections.

Figure 2 Causal Pathway from Programmes to Prevention

Effective HIV prevention programmes for key populations must ultimately reduce biologic exposure to HIV and/or biologic susceptibility to HIV. Exposure and biologic susceptibility are also called biologic determinants of HIV transmission. Exposure to HIV refers to the amount of HIV that a person comes into contact with either through sex or sharing needles. Biologic susceptibility refers to the extent to which a person has biological factors, such as genital ulcer or other sexually transmitted infection, that increase the risk that HIV will be transmitted if a person is exposed to HIV. Reducing the HIV viral load in a person who is infected reduces infectiousness, thereby reducing partners' HIV exposure.

The main strategies for reducing the biologic determinants of HIV transmission are to:

- reduce the number of unprotected sex acts, particularly between HIV-discordant partners
- increase the use of condom-compatible (such as water-based) lubricants during sex
- increase the effective treatment of sexually transmitted infections
- reduce viral load among those infected via appropriate anti-retroviral treatment
- reduce the use of non-sterile injecting equipment.

In order to evaluate whether a programme has been successful in preventing new infections among key populations, indicators measuring whether these strategies have changed the biological determinants must be monitored. Indicators for these strategies are called outcome indicators and include indicators of condom use, sexually transmitted infections, and proportion of people requiring treatment who receive appropriate anti-retroviral treatment.

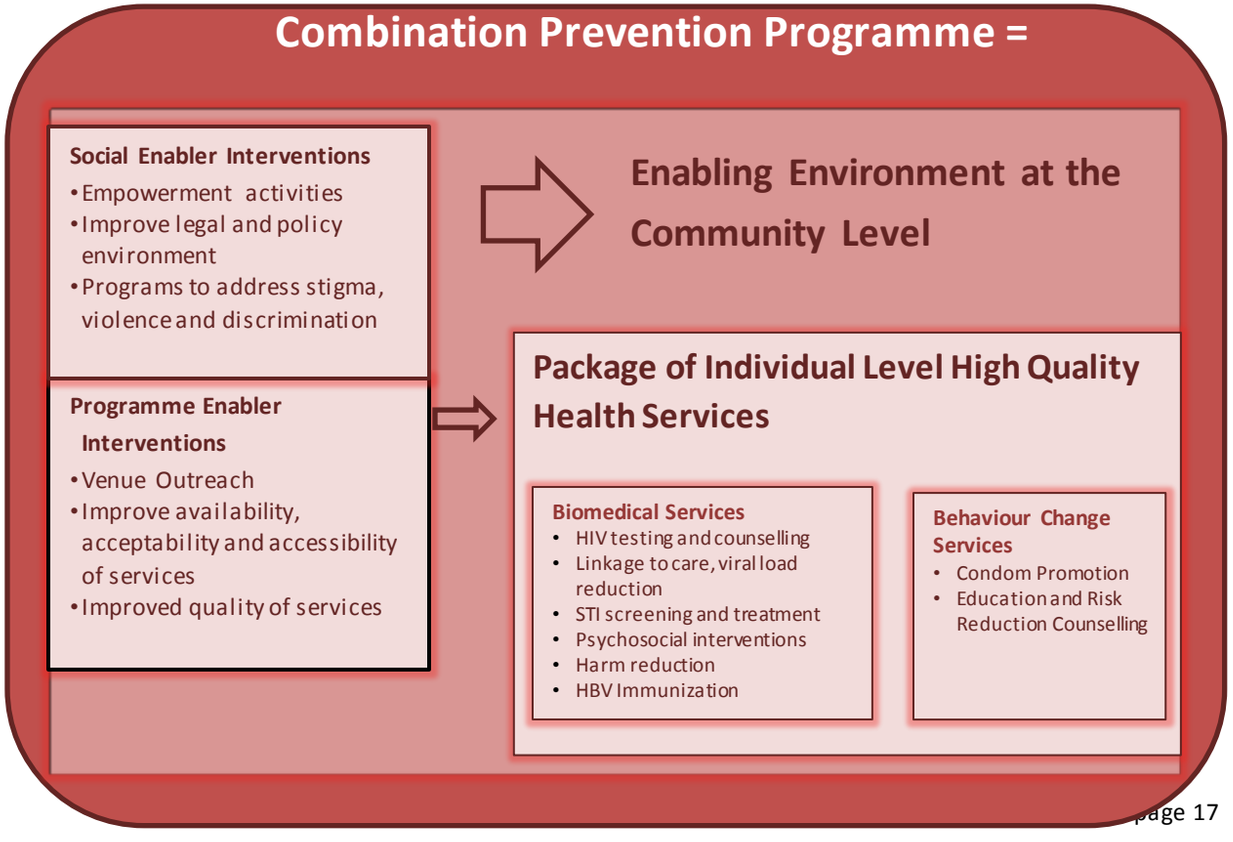
A description of the combination prevention programme is in the next section.

E. The Recommended Combination Prevention Programme for Key Populations

The recommended programmatic response for key populations is a combination HIV prevention strategy. A combination HIV prevention programmatic response seeks to achieve maximum impact on reducing HIV transmission by combining behavioural, biomedical, and structural strategies that are human rights-based, evidence-informed, and community-led. Programmes are tailored to local needs and conditions; focus resources on programmatic and policy actions to address both immediate risks and underlying vulnerability; and, are thoughtfully planned and managed to operate synergistically and consistently on multiple levels (i.e., individual, relationship, community and society). Combination prevention mobilizes the local community, the private sector, government and global resources in a collective undertaking; requires and benefits from enhanced partnership and coordination; and, incorporates mechanisms for learning, capacity-building and flexibility in order to permit continued programme improvement over time (UNAIDS, 2008).

A combination prevention strategy recognizes that a variety of activities are needed to reduce HIV transmission. A combination prevention strategy includes interventions to improve the social environment (*social enablers*) and improve the quality of programmes (*programme enablers*) as well as basic health services including clinic-based and outreach-based services. The term "critical enablers" includes social and programme enablers and addresses factors often referred to as contributing factors or underlying determinants.

Figure 3 Combination Prevention Programme



"Social enabler interventions" create an environment conducive to an effective HIV/AIDS response by addressing:

- restrictive laws and policies
- stigma and discrimination
- poverty
- illiteracy
- lack of social support
- lack of protective or supportive laws and policies for key populations
- violence
- political instability
- hostile social or law enforcement environments for key populations
- co-morbid conditions that affect vulnerability (i.e. mental illnesses)
- lack of knowledge about methods to prevent infection.

"Programme enabler" interventions address factors that limit the availability, acceptability and quality of services such as:

- the lack of involvement of men who have sex with men, transgender people, and sex workers in programme planning and implementation
- poor attitudes among service delivery providers
- poor quality of services such as long waits to see providers
- lack of knowledge among providers.

After appropriate consultation with communities and other stakeholders, each country should specify the nationally recommended combination prevention programme of services and interventions for each key population and disseminate a description of the programme widely.

In addition, the country should specify an operational definition of being "reached with each service" and an operation definition of whether the entire package is available in a target sub-national area. See Step 3 for more information on definitions.

The proposed Combination Prevention Programmes for sex workers, men who have sex with men and transgender individuals are not meant to be the final word on interventions for these populations. Given the advances in HIV prevention science, it is possible that interventions such as provision of microbicides, pre-exposure prophylaxis and ultimately vaccines will become key components of the packages once evidence of effectivess is sufficicient .

Combination prevention is often described as three complementary intervention approaches.
In practice, the three types of interventions (biomedical, behavioral and critical enabling) may be delivered jointly in a clinic or outreach setting or delivered together. For example, a clinic based HIV treatment service may include education about condom use and information about where to access legal services.

Box 2 Examples of Critical Enabler Interventions

Note: See Tool 1 for illustrative critical enabler activities and indicators

Critical enabler interventions	Rationale	Responsibility
Social Enablers		
Political commitment and advocacy	Enables political leadership to engage and raise awareness about HIV; Supports reducing HIV-related stigma; Unhindered service provision to those in need	Head of state's office, parliamentarians and lawmakers, national political parties. Ministries of Health, Ministries of Law/ Justice, heads of province and municipal leaders.
Stigma reduction	Reduction in discrimination against people living with HIV and key populations; enables uptake of HIV prevention and treatment services	Key populations and people living with HIV, local community leaders, activist and religious leaders; employers and workers' organisations, HIV caregivers, relevant government agencies – health, interior, criminal justice, prison administration
Laws, legal policies and practices	Enables a favourable environment for the protection of rights of key populations, such as accelerating HIV-related law reform, amending existing legal frameworks that are counter-productive to effective HIV responses	Human rights groups, journalists, academia, international organizations, rights organizations, bar associations, legal aid cells, human rights commissions, ombuds offices Networks of people living with HIV and key populations, Relevant government agencies – interior, criminal justice, gender and women
Community mobilisation	Enables the mobilization and organization of groups such as sex workers and other key populations, as their participation in HIV prevention services is essential	Community leaders, activists, local government and networks of people living with HIV, key populations
Local responses to change the risk environment	Enable positive changes at the local level by addressing norms, values, culture and religious beliefs that negatively influence risk behaviour, such as through community conversations	Traditional leaders, local decision-makers, religious leaders and caregivers
Programme Enablers		
Community-centred design and delivery	Enables community participation and ensures the sustainability of prevention and treatment programmes	Community leaders, activists, employers and workers organisations, local government and networks of key populations
Programme communication	Enables galvanization of support for the behaviour change programme activities Possible replication and scaling up of programme activities	Media, journalists, local community, donors, government and programme staff
Health education	Develops healthy attitude and skills so learners and youth reduce their HIV risk; helps reduce stigma and discrimination of key populations and people living with HIV	Ministry of education, schools, teachers, teachers, training institutions, private and public schools, formal and non-formal education providers such as religious schools, community-run schools and civil society
Gender equality and gender-based violence interventions	Enables promotion of safer sex negotiation and behaviour by transforming harmful gender norms and empowerment of women and transgender people, including key populations	Community leaders, women, men, microfinance institutions, schools, police, sex workers, media

Adapted from: UNDP/UNAIDS (2012). Understanding and acting on critical enablers and development synergies for strategic investments.

Box 3 Recommended Combination Prevention Programme for Sex Workers

Recommended Combination Prevention Programme for Sex Workers

The following 9 "critical enabler" interventions should be implemented based on community consultation and engagement, to achieve community-centred interventions:

- Sustained community mobilization and engagement with local sex workers to raise awareness about sex worker rights
- Safe spaces such as drop-in centres
- Venue-based delivery of services
- Collective networks and self-help groups for sex workers
- Advocacy for sex workers including advocacy to increase political commitment
- Enabling legal and policy environments in the context of HIV and sex work
- Community-centred promotion and support for programmes addressing stigma, discrimination, and violence towards sex workers
- Programmes and efforts to reduce violence through strategies that provide redressal and (judicial) services, including sex worker-led approaches
- Activities to increase the availability, accessibility and acceptability of health services for sex workers based on the principles of avoidance of stigma, non-discrimination and the right to health.

The following 8 services should be available, accessible and affordable to all sex workers:

- Targeted condom and condom-compatible lubricants promotion and distribution to increase correct and consistent condom use
- Targeted education and HIV risk reduction counselling through outreach and peer education
- STI diagnosis and treatment based on WHO guidelines for treatment of symptomatic STIs among sex workers
    - periodic screening for asymptomatic STIs to female sex workers; and
    - periodic presumptive treatment (only in high prevalence settings as a temporary measure, maximum of six months).
- Voluntary HIV testing and counselling linked to care and treatment for sex workers
- Treatment of sex workers living with HIV based on current WHO recommendations on the use of antiretroviral therapy for the general population
- Programs to ensure adherence and retention among sex workers
- Harm reduction programmes based on the current WHO recommendations on harm reduction for sex workers who inject drugs
- Programmes to include sex workers in catch-up HBV immunization strategies in settings where infant immunization has not reached full coverage.

Adapted from: WHO, UNFPA, UNAIDS Secretariat, NSWP (2012). Prevention and treatment of HIV and other sexually transmitted infections for sex workers in low- and middle-income countries

Box 4 Recommended Combination Prevention Programme for Men Who Have Sex with Men

The following 5 "critical enabler" interventions should be implemented based on community consultation and engagement, to achieve community-centred interventions:

- Individual-level and community level interventions including:
  - empowerment activities
  - outreach
  - small group sessions and
  - leadership activities.
- Venue-based outreach strategies to decrease risky sexual behaviour and increase uptake of HIV testing and counselling among men having sex with men
- Promote and support enabling legal and policy environments in the context of HIV and men having sex with men
- Promote and support programmes addressing stigma, discrimination, and violence towards men having sex with men
- Health services made available, accessible & acceptable to men having sex with men based on the principles of avoidance of stigma, non-discrimination and the right to health.

The following 9 services should be available, accessible & affordable to all men who have sex with men:

- Targeted condom and condom-compatible lubricants promotion and distribution to increase correct and consistent condom use during anal intercourse
- Targeted education and risk-reduction counselling through outreach and peer education
- STI prevention and treatment based on WHO guidelines for treatment of symptomatic STIs among men who have sex with men
  - periodic testing for asymptomatic urethral and rectal N. gonorrhoeae and C. trachomatis infections using nucleic acid amplification tests (NAAT) and
  - periodic serological testing for asymptomatic syphilis infection.
- Community-based HIV testing and counselling linked to care and treatment
- Treatment of men who have sex with men living with HIV based on current WHO recommendations on the use of antiretroviral therapy for the general population
- Programs to ensure adherence and retention among men who have sex with men
- Evidence-based brief psychosocial interventions involving assessment, specific feedback and advice made available to men having sex with men with harmful alcohol or other substance abuse.
- Harm reduction programmes based on the current WHO recommendations on harm reduction for men who have sex with men who inject drugs.
- Programmes to include men having sex with men in catch-up HBV immunization strategies in settings where infant immunization has not reached full coverage.

Adapted from: WHO, UNDP, UNAIDS Secretariat, MSMGF (2011). Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people.

Box 5 Recommended Combination Prevention Programme for Transgender People

The following 5 "critical enabler" interventions should be implemented based on community consultation and engagement, to achieve community-centred interventions:

- Individual-level and community level interventions including:
  - empowerment activities
  - outreach
  - small group sessions and
  - leadership activities.
- Venue-based outreach strategies to decrease risky sexual behaviour and increase uptake of HIV testing and counselling among transgender people
- Promote and support enabling legal and policy environments in the context of HIV and transgender people
- Promote and support programmes addressing stigma, discrimination, and violence towards transgender people
- Health services made available, accessible and acceptable to transgender people based on the principles of avoidance of stigma, non-discrimination and the right to health.

The following 10 services should be available, accessible and affordable to all transgender people:

- Targeted condom and condom-compatible lubricants promotion and distribution to increase correct and consistent condom use during intercourse
- Targeted education and risk-reduction counselling through outreach and peer education
- STI prevention and treatment based on WHO guidelines for treatment of symptomatic STIs among transgender people
  - periodic testing for asymptomatic urethral and rectal N. gonorrhoeae and C. trachomatis infections using NAAT and
  - periodic serological testing for asymptomatic syphilis infection.
- Community-based HIV testing and counselling linked to care and treatment
- Treatment of transgender people living with HIV based on current WHO recommendations on the use of antiretroviral therapy for the general population
- Programs to ensure adherence and retention among transgender people
- Evidence-based brief psychosocial interventions involving assessment, specific feedback and advice made available to transgender people with harmful alcohol or other substance abuse.
- Harm reduction programmes based on the current WHO recommendations on harm reduction for transgender people who inject drugs
- Promote and support programmes enabling transgender people who inject substances for gender enhancement to use sterile injecting equipment and practise safe injecting behaviours to reduce the risk of infection with bloodborne pathogens such as HIV, hepatitis B and hepatitis C
- Programmes to include transgender people in catch-up HBV immunization strategies in settings where infant immunization has not reached full coverage.

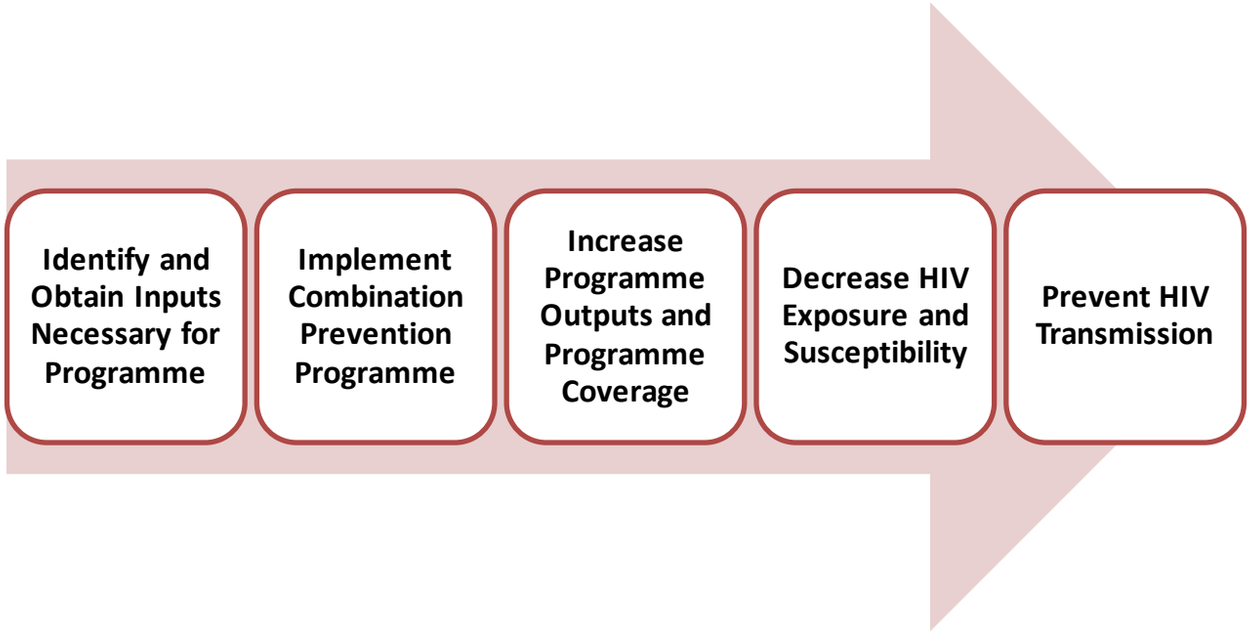
Adapted from: WHO, UNDP, UNAIDS Secretariat, MSMGF (2011). Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people.

F. Using a Programme Impact Pathway to Monitor a Combination Prevention Programme

A simple programme impact pathway is illustrated below. The pathway illustrates the key activities in monitoring and evaluation:

- Input monitoring
- Service availability mapping
- Output monitoring
- Programme coverage
- Outcome monitoring of HIV exposure and susceptibility
- Impact monitoring of HIV infection.

Figure 4 Simple Programme Impact Pathway



Each type of monitoring and evaluation – input monitoring, output monitoring, outcome monitoring and impact monitoring – relies on quantitative indicators of programme progress. These can be supplemented with qualitative assessments. Indicator standards developed by UNAIDS (see UNAIDS Indicator Standards, 2010) include:

Standard 1. The indicator is needed and useful
Standard 2. The indicator has technical merit
Standard 3. The indicator is fully defined
Standard 4. The indicator is feasible to collect and analyse data
Standard 5. The indicators have been field tested or used in practice.
Standard 6: The indicator set is coherent and balanced overall

Useful indicators should indicate whether a programme has been implemented, who has been reached, whether the programme works, or where it needs to be improved. Input and output indicators are exact numbers such as numbers of condoms distributed or number of people tested and use data routinely collected or data from special studies. Input and output indicators should be verifiable though data quality audits (DQA's). See Data Quality Audit Tool (DQA): Guidelines for Implementation (Measure Evaluation, 2008).

Coverage, outcome and impact indicators such as HIV prevalence, percentage of consistent condom use, or coverage rate (based on size estimation as the denominator) are usually estimated from surveys or special studies.

Input, output, coverage, outcome and impact indicators comprise an indicator set which measures different elements of a programme. It may be best to start with a few indicators which provide key information about the programme. Once the basics are in place, additional indicators may be added, if needed, and as resources and capacity permit. See Step 3 for more information on target-setting and Step 6 for defining output indicators.

Throughout these *Guidelines,* specific recommendations are made to help with selecting appropriate indicators. In addition, Tools 22 (pg. 193) and 23 (pg. 202) list measures which can be used at the national, sub-national and/or service delivery levels. These lists include the indicators required by UNAIDS, the Global Fund and PEPFAR. As the focus of these *Guidelines* is primarily on HIV programmes as prevention, indicators for treatment, care and support programmes are not included here. Monitoring and evaluating of individuals enrolled in HIV care and treatment programmes should refer to the existing national programme protocols.

In accordance with the "Three Ones" principles (UNAIDS, 2004), countries are working towards *one* country-level M&E system. Applying this principle to indicator selection means that indicators should be selected as much as possible from existing indicators.

The indicators in these *Guidelines* (Tools 22 and 23) include additional indicators not used in global reporting that may be helpful in monitoring programmes. These indicators are directly linked to the programme impact pathway. Because programme implementation pathways are developed in collaboration with implementing partners including members of the key populations, pathways and indicators will differ from country to country. The list of indicators in the appendix is designed to be illustrative of a set of indicators that monitor key points along the pathway. Consistent monitoring of these indicators will identify where there are bottlenecks and where additional attention is needed.

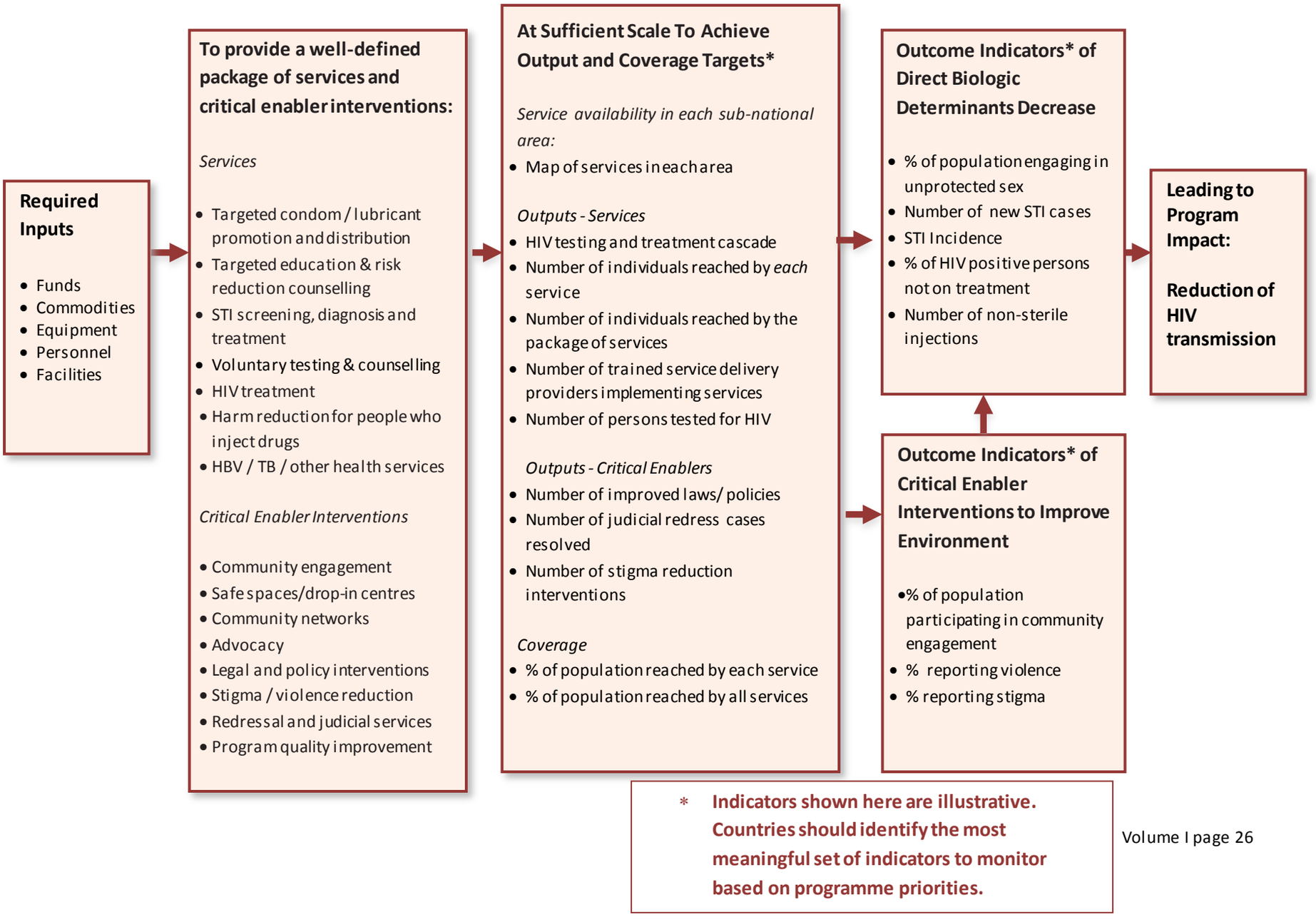
Data on the HIV epidemic and prevention activities for vulnerable populations are often scarce, causing many people to forget about the importance of the data quality. Data users should be aware of the size of the sample from which the data was collected, where it was collected, how participants or services were selected, interviewer training, missing data, the investigators' possible conflicts of interest, and other biases or factors that might compromise the quality of the data at hand.

Figure 5 provides a more detailed overview of the programme impact pathway for a combination HIV prevention strategy. Indicators are included for each part of the pathway. All programme impact pathways reveal the logical sequence from programme inputs to outputs to outcomes to impact on HIV incidence. Reduction in HIV transmission is always the ultimate objective. Sometimes this cannot be achieved without addressing the most important contributing social and programme factors.

Separate pathways can be written for the entire country, each sub-national area and for each service delivery provider. A service delivery pathway should include the entire pathway from inputs to impact in order to show the logic of its work. The pathway should identify which parts of the full pathway are addressed by the provider and which indicators it will measure. However, service delivery providers are not expected to develop and monitor outcome or impact indicators. If capacity exists, the service delivery provider should monitor 1-2 outcome indicators such as condom use or STI cases.

Figure 5 General Programme Impact Pathway for Key Populations

If the required inputs are available and a combination prevention programme of services and critical enabler interventions delivered at sufficient scale to achieve output and coverage targets, then outcome indicators will show a decrease in the biologic determinants of HIV transmission, and fewer people will become infected.



G. 8 Step Public Health Questions Model of Monitoring and Evaluation

The 8 step public health questions model describes the steps necessary to design an informed programme implementation pathway. The 8 steps follow a "Plan, Monitor, Evaluate" approach. The objectives for planning, monitoring and evaluation are listed below, adapted for key populations.

Steps 1-3: Plan: "Based on what we know about the HIV epidemic, what should we be doing to reduce HIV transmission among men who have sex with men, sex workers and transgender people?

Specific objectives are to:

- Describe **HIV prevalence** among sex workers, men who have sex with men, and transgender people in the country and identify sub-national areas with the highest prevalence of infection
- Estimate the **number** of sex workers, men who have sex with men, and transgender people nationally and in each sub-national area
- Estimate **baseline indicators** for increased risk of exposure or susceptibility to HIV infection (for example, condom use, unprotected anal sex, co-infection with another STI)
- Identify **critical enablers** that impede or support the implementation of high quality, accessible and acceptable community-led programmes
- Adapt as appropriate the recommended **combination prevention programme** for each population including recommended services and critical enabler interventions (See boxes 3-5)
- Create a **programme impact pathway** that reflects the recommended national programme
- Set coverage, outcome and impact **targets** based on the programme implementation pathway, service availability maps and HIV testing and treatment cascade.

Steps 4-6: Monitor: "What activities are we implementing? Are we doing them right?"

Specific objectives are to:

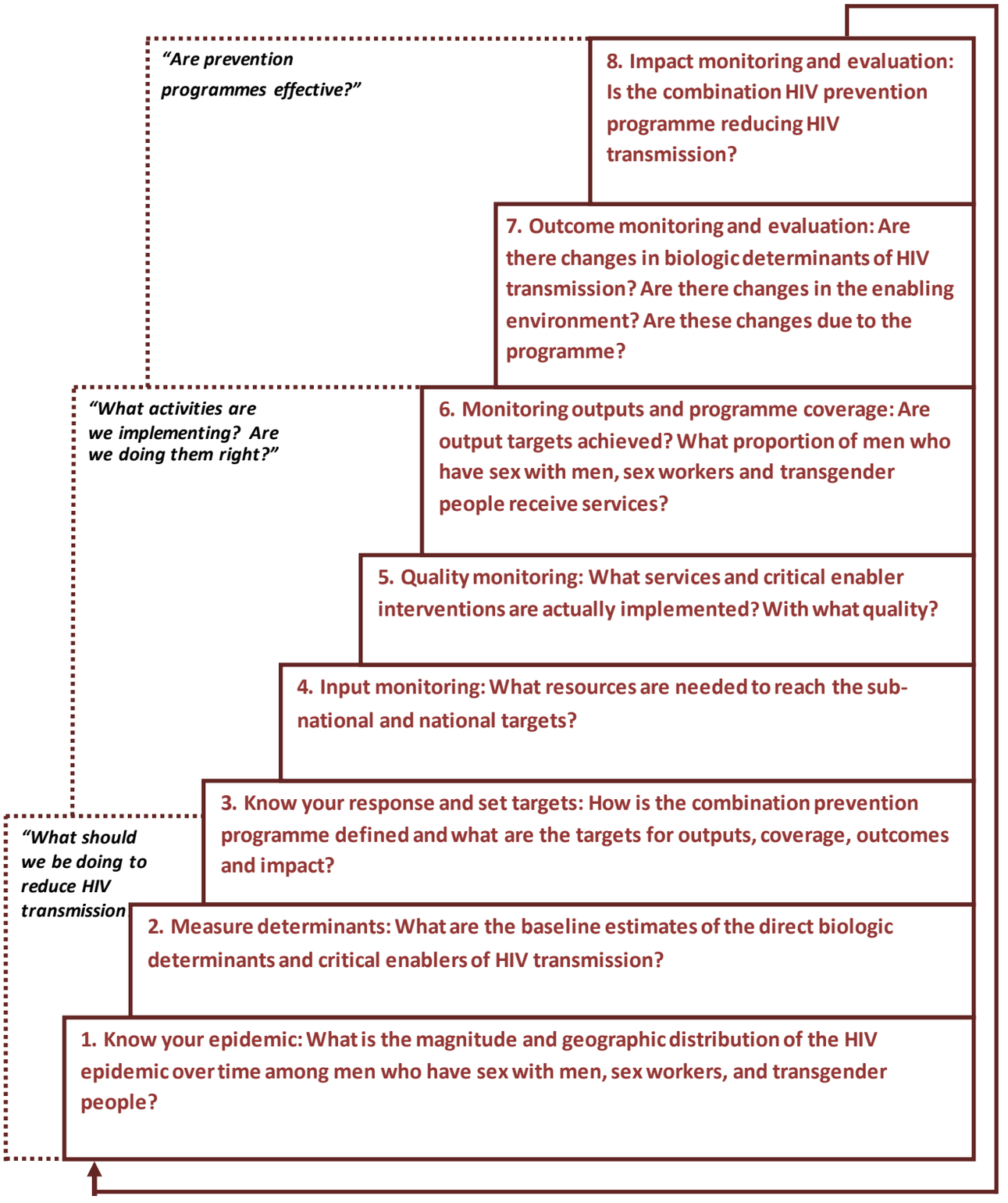
- Conduct **input and output monitoring** to assess whether programme inputs are adequate to meet output targets and whether output targets were achieved
- Document implementation of **critical enabler interventions**
- Calculate **coverage estimates** to assess the extent to which key populations are reached with services in the package
- Assess the **quality** of services that are provided
- Conduct **process monitoring and evaluation**: use the programme implementation pathway, HIV testing and treatment cascade, service availability maps and "Plan-Do-Check-Act" cycles to identify where to improve programmes

Steps 7-8: Evaluate: "Are programmes effective?"

Specific objectives are to:

- Determine whether the **risk of HIV infection** has decreased among key populations
- Determine whether the critical enabler interventions have **improved the environment**
- Assess whether decreases in risk are due to the programme
- Synthesize findings in recommendations useful for **planning changes**

Figure 6 Public health questions model applied to the HIV epidemic among men who have sex with men, sex workers and clients, and transgender people



H. Introduction to Input Monitoring

Input monitoring measures whether inputs required for implementing a programme are available. Often countries neglect to identify the resources needed for monitoring and evaluation. Every country will have different resource requirements. Here is a checklist that covers resources typically required for monitoring and evaluation. Further information on how to do input monitoring is in Step 4.

Box 6 Illustrative Description of Inputs Needed for Monitoring and Evaluation of HIV Programmes for Key Populations

Resource	National Level	Sub-National Level	Service Delivery Level
Personnel	2-3 person M&E Unit	1-2 person M&E unit	1 person
Supplies / Equipment / Data	1-2 computers Internet access Spreadsheet software Email Access to training equipment Access to surveillance data for each sub-national area This operational guideline	1-2 computers Internet access Spreadsheet software Email Access to training equipment Access to surveillance data for the sub-national area This operational guideline	1-2 computers Internet access Spreadsheet software Email Access to training equipment This operational guideline
Skills / Training	Management Basic statistics Forms development Basic epidemiology Basic mapping Basic survey Basic quantitative analysis	Management Basic statistics Basic epidemiology Basic mapping Basic survey Data management Basic quantitative analysis	Management Data management Basic mapping Basic qualitative analysis
Funding	5-10% of national programme budget	5-10% of sub-national programme budget	5-10% of service delivery programme budget

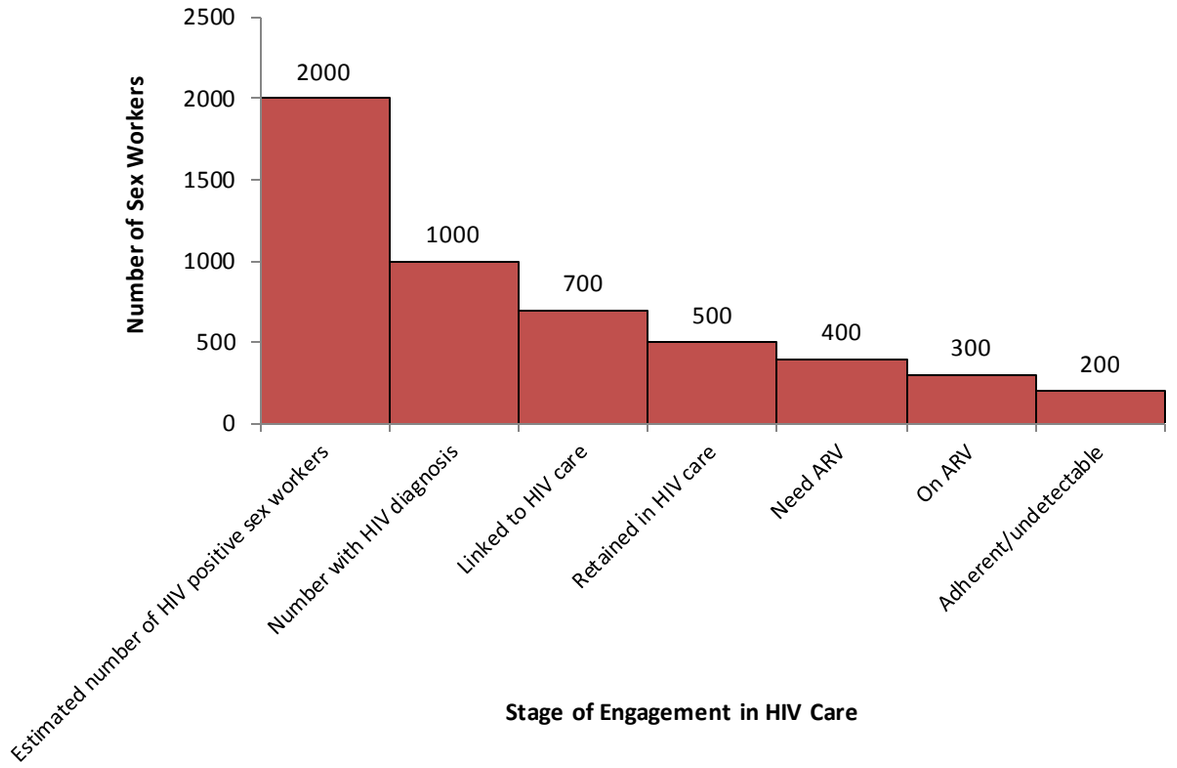
I. Introduction to Process Monitoring and Evaluation

Process monitoring reveals whether the activities and strategies developed as part of the planned response are being implemented on time, at the scale required by the targets, and with sufficient quality. Process monitoring can occur at the national, sub-national or service delivery level. Process monitoring compares the planned activities, timeframe, inputs, and outputs with what actually occurred. Process monitoring identifies bottlenecks, duplications and inefficiencies and can reveal practical solutions to problems.

One example of process monitoring is the prevention and treatment cascade. Below is an example of a HIV testing and treatment cascade that summarizes the magnitude of the epidemic in a specific

population and the gaps in access to testing and antiretroviral therapy. The cascade can be applied conceptually or quantitatively and can be used to describe a current epidemic and care situation. In order to develop a prevention and treatment cascade, the number of persons in the population who are infected with HIV must be estimated. This number can be estimated using the prevalence of infection and the estimated size of the population. (See Step 1)

Figure 7 Illustrative HIV testing and treatment cascade in a country with 10,000 sex workers and estimated HIV prevalence of 20%



Adapted from Gardner EM, McLees MP, Steiner JF, Del Rio C, Burman WJ. The spectrum of engagement in HIV care and its relevance to test-and-treat strategies for prevention of HIV infection. Clin Infect Dis 2011;52:793-800.

Process monitoring can also include an assessment of the quality of the services provided in addition to an assessment of whether services were provided or not. Even if the programmes are implemented, programme effectiveness will suffer if people do not feel welcome, if the service is not provided in an accessible setting, if supplies run out, or if providers are not well trained. There may be high staff turnover among service delivery providers that requires frequent training and re-training. Measurable standards of quality are necessary in order to monitor quality. Standards should be set at the national level with input from experts, providers, and the population being served. At the national level, an accreditation system for facilities and/or a certification for service providers could be useful to ensure that quality services are provided.

Process monitoring and evaluation are described in Steps 4-6.

J. Introduction to Outcome and Impact Evaluation

The main objective of an outcome or impact evaluation is to determine if the programme is making a difference in terms of HIV transmission as measured by changes in HIV transmission (impact evaluation) or outcome evaluation (such as improvements in the rate of condom use). The strength of an evaluation's design has consequences on the conclusions that can be drawn from the study. Habicht's 1999 article, "Evaluation designs for adequacy, plausibility and probability of public health programme performance and impact" distinguishes between evidence from weaker designs (cross-sectional studies or studies without a comparison group) and stronger evidence from experimental studies that randomly assign the intervention to some groups and not to others. While the stronger the evidence, the better, some designs may not be feasible. Outcome and impact evaluation may not be appropriate or necessary capacity to conduct evaluations may not exist at the service delivery level.

Outcome and impact evaluation are described in Steps 7-8.

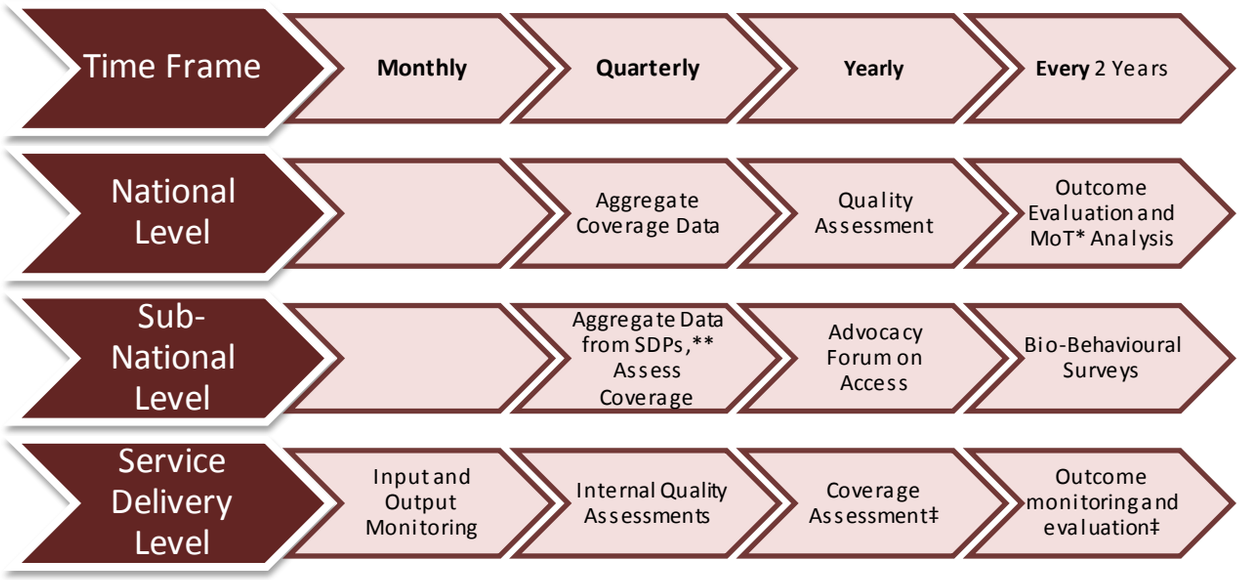
K. Coordination Among National, Sub-National and Service Delivery Levels

Monitoring and evaluation of combination prevention should be well-coordinated among national, sub-national and service delivery levels. The national and sub-national levels need to share information about the course of the epidemic and about results of special surveys and surveillance studies with service providers. Service providers need to share information about reach and quality of the services they provide so that the national and sub-national levels can ensure a comprehensive and coordinated response.

People carrying out activites in these guidelines should be familiar with the monitoring and evaluation system in the country where they are working and work closely with it in their efforts. Coordinating data collection, compilation of data, aggregation of service delivery statistics and ensuring that the data are used for decision making is challenging. The M&E cycle is dynamic and complex and requires ongoing communication among national, sub-national and service delivery levels.

Figure 8 illustrates one possible timeframe for the M&E cycle. The cycle should be coordinated to match decision making periods in the country planning cycle.

Figure 8 Proposed timeframe for conducting M&E activities at each level



* Modes of transmission
**Service delivery provider

L. Ensuring Ethical Conduct

Ethical conduct and regard for the welfare of those involved in M&E activities and those affected by their results are of utmost importance. M&E must provide useful information while ensuring that data collection and use does not worsen discrimination and stigma. Sex workers, men who have sex with men and transgender people are already socially vulnerable and often marginalized for their behaviours. Data collection efforts that bring attention to these populations may place them at additional risk.

All people should be respected and treated as autonomous individuals who can and should freely make decisions regarding their participation in M&E activities. Those directing M&E efforts should maximize the benefits and minimize any potential harm from these activities. Individuals involved in planning or implementing M&E activities have ethical and legal obligations to protect the privacy of their participants. They must clearly explain to participants how they will protect and use private information. In this context, privacy refers to the control of information about an individual by that individual; and the right to control information about one's self is an aspect of autonomy.

Some common procedures that ensure that these principles are achieved when conducting outcome/impact evaluations and research include informed consent, safeguards of private information and protection of human subjects review by an institution authorized to do so, such as an institutional review board (IRB). Informed consent and human subject protections are measures to ensure that the

rights, welfare, and wellbeing of human subjects involved in **research** are documented and protected. In some cases, M&E activities may require a formal protection of human subjects review when data collection activities are classified as human subject research by qualified individuals/institutions. However, these formal documentations are generally not necessary in routine programming unless it is deemed necessary by the IRB.

However, proper procedures must be used to ensure the confidentiality and protection of private information in all programs, regardless of whether research is being conducted. These may include conducting interviews in private spaces, using identification numbers rather than names to refer to individuals and storing private or individually identifiable information in a secure environment. These *Guidelines* recommend the use of a unique identifier code (UIC) for each individual accessing a service. This guarantees that data cannot be linked directly to a specific person and allows for better tracking of service utilization.

M. How to use the Operational Guidelines: Where to Begin

The eight steps are not necessarily undertaken in sequence. Nevertheless, steps often build on and produce data needed for subsequent steps. The guidelines specify when prerequisites exist for completing a step.

Tool A is a programme assessment form that can be used to identify M&E priorities. Tool A is designed to help users visualize their progress in regard to the key M&E products. This tool can also help users prioritize methods or data to be collected as it may be daunting to consider collecting all recommended data. The tool is organized based on the 8 Step Public Health Question Model but the order can be modified based on institutional or national priorities.

The following describes the different columns that make up Tool A:

- Products: data collection products necessary for monitoring and evaluation of HIV programmes
- Availability: depends not only whether it exists for the geographic area of interest, but how recently it was created. Data lose relevance and become out-dated as time passes which is why the Availability column specifies that the product should have been collected in the past three years. If a particular product is more than three years old, consider recollecting that particular product.
- Priority Level for M&E: based on these Guideline's assessment regarding the importance of each product for monitoring and evaluation of HIV programmes
- Ranking: Use this column to rank the most important products based on your knowledge of the epidemic and your response.

Users may find it helpful to post Tool A in a visible location and update it as necessary; it can serve as an overarching guide through the monitoring and evaluation process. Service delivery providers may request certain products relevant to their catchment area from the national and sub-national levels.

TOOL A. Checklist to self-assess available data and resources mentioned in these guidelines

Country:						
Key Population:						
Number of Sub-National Areas Targeted for Services:						
	M&E Products	**Available (past 3 years) for:**		**Priority Level for M&E**	**Rank Your Top 5 Priorities**	
		National Level	**Number Of Sub-National Areas**		**National**	**Sub-National**
	Step 1 Know Your Epidemic:					
1	Map showing geographic distribution of population and size	Y N		✓✓		
2	Prevalence and incidence table by sub-national area	Y N		✓✓		
3	Map of prevalence estimates	Y N		✓✓		
	Step 2 Measure Determinants:					
4	Community consultation assessment covering issues of access, stigma, violence and identifying barriers to enabling environment	Y N		✓✓✓		
5	Survey of key population providing baseline estimates of prevalence, behaviours, use of health services, and perceived barriers to health	Y N		✓✓✓		
6	Policy, law, judicial redress report	Y N		✓✓✓		
	Step 3 Know your Response and Set Targets:					
7	Defined combination prevention programme including health services and critical enabler interventions	Y N		✓✓✓		

	M&E Products	Available (past 3 years) for:		Priority Level for M&E	Rank Your Top 5 Priorities	
		National Level	Number Of Sub-National Areas		National	Sub-National
8	Operational definitions of "reached by a service" and critical enabler intervention implemented	Y N		✓✓✓		
9	Operational definitions of sub-groups for monitoring	Y N		✓✓✓		
10	Service availability baseline map and targets	Y N		✓✓		
11	Critical enabler interventions at baseline and targets	Y N		✓✓		
12	Coverage, outcome and impact indicator targets	Y N		✓✓		
13	Programme Impact Pathway/ other process evaluation	Y N		✓✓✓		
	Step 4 Input monitoring:					
14	Documentation monitoring inputs	Y N		✓✓		
15	Gap analysis	Y N		✓		
	Step 5 Quality monitoring:					
16	National quality standards	Y N		✓✓		
17	Periodic assessment of service quality	Y N		✓✓✓		
	Step 6 Monitoring Outputs and Programme Coverage:					
18	Indicator reference sheet for each indicator	Y N		✓✓		
19	Identified strategy to avoid double-counting	Y N		✓✓		

M&E Products		Available (past 3 years) for:		Priority Level for M&E	Rank Your Top 5 Priorities	
		National Level	Number Of Sub-National Areas		National	Sub-National
20	Output trends report	Y N		✓✓		
21	Service availability trend report and map	Y N		✓✓		
22	Enabling environment checklist: trends	Y N		✓✓		
23	Coverage trends report	Y N		✓✓		
24	HIV Testing and Treatment Cascade/ other process evaluation	Y N		✓✓✓		
	Step 7 Outcome Monitoring and Evaluation:					
25	Protocol for outcome monitoring	Y N		✓✓✓		
26	Trend analysis of outcome indicators at sub-national and national levels	Y N		✓✓✓		
27	Aggregation method for national indicators	Y N		✓✓		
28	Outcome evaluation protocol	Y N		✓		
29	Report of outcome evaluation	Y N		✓		
	Step 8 Impact Monitoring and Evaluation:					
30	Impact evaluation protocol and report	Y N		✓		
31	Modelling effectiveness of HIV prevention efforts	Y N		✓		

N. Key References for the Guideline

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Volume I: Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People: National and Sub-National Level

Overview of 8 Steps of M&E of HIV Prevention Programmes (See page 25)

Planning: What can we do to reduce HIV transmission?

Step 1. Know Your Epidemic:

- *What is the magnitude and geographic distribution of the HIV epidemic over time among men who have sex with men, sex workers, and transgender people?*

Step 2. Measure determinants:

- *What are the baseline estimates of the direct biologic determinants and the critical enablers of HIV transmission?*

Step 3. Know your response and set targets:

- *How is the combination prevention programme defined and what are the targets for outputs, coverage, outcomes and impact?*

Data products from Steps 1-3:

- Map showing geographic distribution of population and size
- Prevalence and incidence table by sub-national area
- Map of prevalence estimates
- Community consultation assessment
- Baseline estimates from surveys
- Policy, law, judicial redress report
- Defined combination prevention programme
- Operational definitions of "reached by a service" and critical enabler intervention implemented
- Operational definitions of sub-groups
- Service availability baseline map and targets
- Critical enabler interventions at baseline and targets
- Coverage, outcome and impact indicator targets
- Programme Impact Pathway

Monitoring the response: What interventions and services are being implemented? Are they implemented correctly?

Step 4. Input monitoring:

- *What resources are needed to reach the sub-national and national targets?*

Step 5. Quality monitoring:

- *What services and critical enabler interventions are actually implemented? With what quality?*

Step 6. Monitoring outputs and programme coverage:

- *Are output targets achieved? What proportion of men who have sex with men, sex workers and transgender people receive services?*

Data products from Steps 4-6

- Documention monitoring inputs
- Gap analysis
- National quality standards
- Periodic assessment of service quality
- Indicator reference sheet for each indicator
- Identified strategy to avoid double-counting
- Output Trends Report
- Service availability trend report and map
- Enabling environment checklist: trends
- Coverage trends report
- HIV Testing and Treatment Cascade

Evaluating effectiveness: Are our programmes effective?

Step 7. Outcome monitoring and evaluation:

- *Are there changes in biologic determinants of HIV transmission? Are there changes in the enabling environment? Are these changes due to the programme?*

Step 8. Impact monitoring and evaluation:

- *Is the combination HIV prevention programme reducing HIV transmission?*

Data products from Steps 7-8:

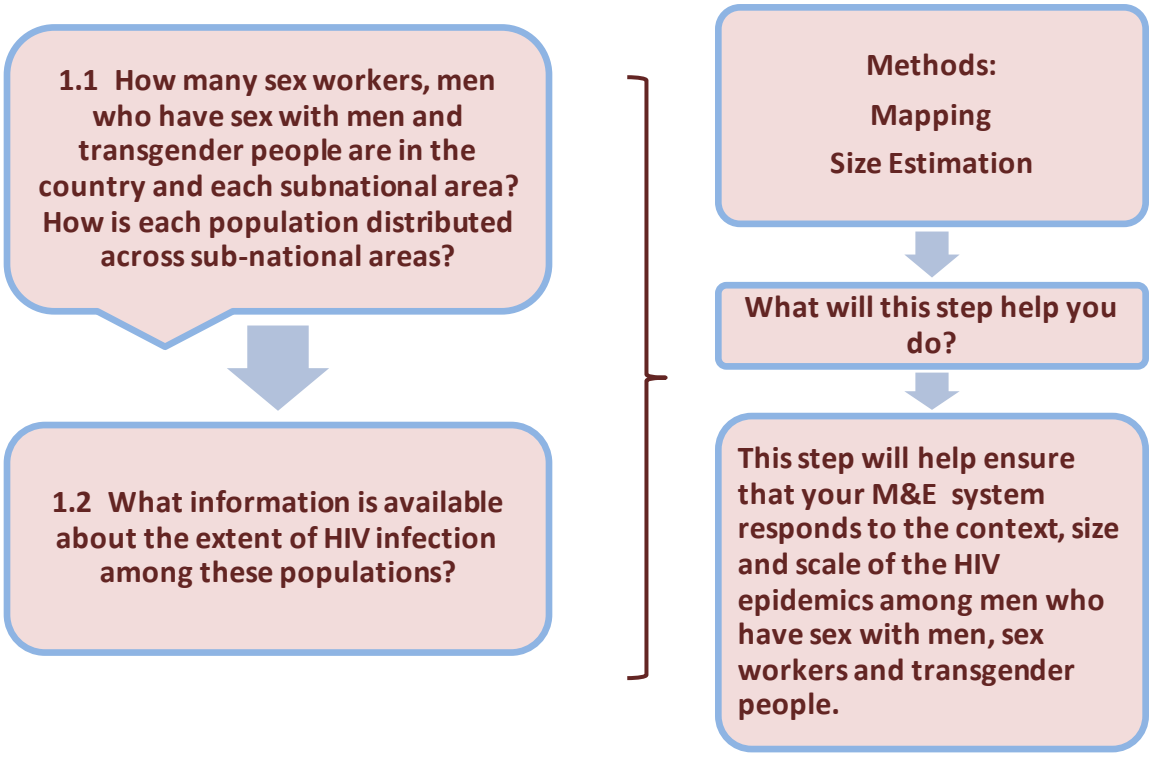
- Protocol for outcome monitoring
- Trend analysis of outcome indicators
- Aggregation method for national indicators
- Outcome evaluation protocol
- Report of outcome evaluation
- Report of outcome evaluation
- Impact evaluation protocol and report
- Modelling effectiveness of HIV prevention efforts

Step 1: Know Your Epidemic: What is the magnitude and geographic distribution of the HIV epidemic over time among men who have sex with men, sex workers, and transgender people?

A. Rationale – Why is this step important?

Knowing your HIV epidemic is important so that M&E systems focus on monitoring the adequacy and effectiveness of the prevention programme response in the areas where the epidemics among sex workers, men who have sex with men, and transgender people are concentrated. Sex workers, men who have sex with men, and transgender people are often hidden populations. A common failure of monitoring and evaluation is to limit its scope to areas where programmes are in operation rather than where they are most needed. In this step, a national investigation of the size, scope and geographic distribution of the HIV epidemics among sex workers, men who have sex with men, and transgender people is undertaken as the first step in understanding the scope for monitoring and evaluation.

B. Step 1 Flowchart of Key Questions, Methods, and Data Use (Figure I.1.1)



C. How to answer key questions and use data: Overview for Step 1

	Key Question	Methods	Data Use
1.1	How many sex workers, men who have sex with men and transgender people are in the country and each subnational area? How is each population distributed across sub-national areas?	1. Mapping 2. Size estimation	• Use **maps** to show where programs should be focused • Use **size estimates** to inform target setting
1.2	What information is available about the extent of HIV infection among sex workers, men who have sex with men and transgender people?	1. Synthesis of existing HIV prevalence data 2. Incidence estimation methods	• Use **synthesis of surveillance data and size estimates** from Step 1.1 to identify sub-national areas with greatest need for prevention services • Use HIV prevalence/incidence data as **baseline measures** for evaluating the impact of HIV prevention programmes

D. Methods and Tools to Answer Each Key Question

	Key Question	Methods	Data Use
1.1	How many sex workers, men who have sex with men and transgender people are in the country and each subnational area? How is each population distributed across sub-national areas?	1. Mapping 2. Size estimation	• Use **maps** to show where programs should be focused • Use **size estimates** to inform target setting

1.1.1 Mapping

Maps showing the number of sex workers, men who have sex with men, and transgender people in each sub-national area can guide strategies for where to focus prevention and care programs.

Methods

Sex workers, men who have sex with men and transgender people are more likely to live in some parts of the country than others. A national forum can be called to review available data on the location of each population. In each sub-national area with evidence of a significant population of men who have sex with men, sex workers or transgender people, more specific maps can be made to identify where programs are needed to reach the populations.

Extreme caution must be used in developing maps so that they do not unintentionally harm anyone or undermine the confidentiality of the people being served or those providing services. Maps can draw unwanted attention to the location of marginalized populations.

One approach for mapping a population (included in the Priorities for Local AIDS Control Efforts (PLACE) method) is the following:

- Hold a national meeting to review available information and data in order to identify sub-national areas where there are expected to be a large number of each key population.
- Within each sub-national area, ask a large number of various types of community informants to identify places where sex workers, men who have sex with men, and transgender people can be reached.
- Record the names and locations of the places. Visit and characterize the places in terms of the type of people who visit the site and whether there is any evidence of on-site HIV prevention efforts.
- Ask sex workers, men who have sex with men, and transgender people at these locations about their behaviour, where they work, live, visit, how frequently they attend these areas as well as why they attend these places.

- Use the information on the frequency of attendance, number of venues, and estimated number of each population at each venue to get a crude estimate of the number of each key population who visit these venues.
- Determine whether the place would be suitable for outreach activities.
- Map the location of each place using global positioning system (GPS) equipment and geospatial tools such as geographic information systems (GIS). Geographic data from GPS units can be displayed on free Google Earth images or using free software such as QGIS. Indicate which venues are high priority for prevention interventions based on the information obtained on size, risk behaviour and suitability for prevention programs.

Spatial data such as transportation networks and health care facilities may be added to maps and can be useful for interpreting maps. Another method for mapping the population is to map the number of AIDS cases among men who have sex with men or sex workers by neighbourhood.

Methods for creating maps include:

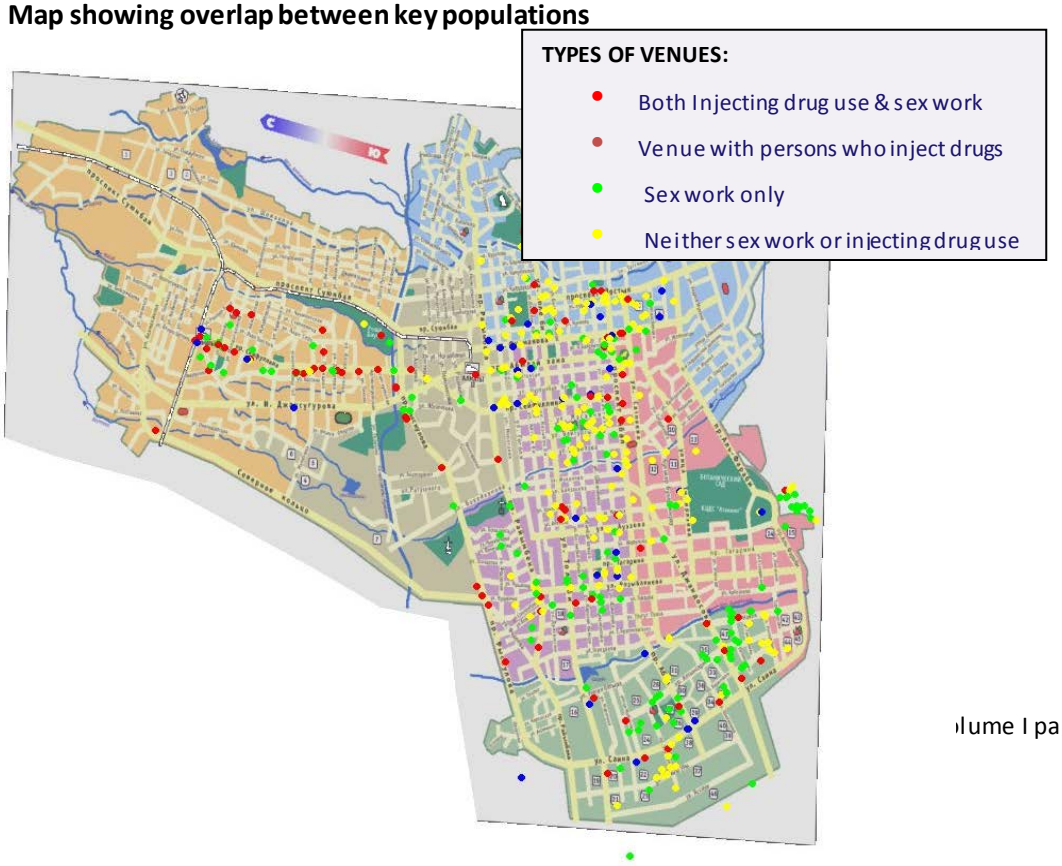
- Displaying geographic coordinates obtained using a hand-held GPS unit on Google Earth maps
- Using GPS software such as Arc-View, Epi-Map, or QGIS to display spatial data
- Drawing maps by hand

Products

- Map showing geographic distribution of population and size

A map can also show the overlap among key populations. Below is a map of a city showing the overlap between venues where people meet new sexual partners and venues where people who inject drugs socialize. (Map is courtesy of MEASURE/Evaluation Project, University of North Carolina).

Figure I.1.2 Map showing overlap between key populations



Further information and guidance on mapping:

- MEASURE Monitoring and Evaluation Systems. http://www.cpc.unc.edu/measure/tools/monitoring-evaluation-systems/geographic-information-systems
- A Geographic Approach to Mapping High Risk Locations for Scaling Up HIV Prevention Programme in Karnataka, a Southern Indian State. http://www.iasociety.org/Abstracts/A2193720.aspx
- An Overview of Spatial Data Protocols for HIV/AIDS Activities: Why and How to Include the "Where" in Your Data. http://www.cpc.unc.edu/measure/publications/MS-11-41A
- Priorities for Local AIDS Prevention Programs (PLACE), MEASURE Evaluation. http://www.cpc.unc.edu/measure/news/the-place-method-for-m-e-of-hiv-prevention-programs
- PLACE Mapping and Size Estimation Module, MEASURE Evaluation. https://www.cpc.unc.edu/measure/publications/WP-11-126/at_download/document
- National Research Council (2007). Putting People on the Map: Protecting Confidentiality with Linked Social-Spatial Data. Panel on Confidentiality Issues Arising from the Integration of Remotely Sensed and Self-Identifying Data, M.P. Gutman and P.C. Stern, Eds. Washington, D.C.: The National Academies Press. http://www.nap.edu/catalog.php?record_id=11865
- VanWey, et al (2005). Confidentiality and spatially explicit data: Concerns and challenges. PNAS October 25, 2005 vol. 102 no. 43 15337-15342. http://www.pnas.org/content/102/43/15337.fll
- Guidelines on Protecting the Confidentiality and Security of HIV Information: Proceedings from a Workshop 15-17 May 2006, Geneva, Switzerland INTERIM GUIDELINES 15 May2007.

1.1.2 Size estimation

Size estimates are used to determine the scale and scope of programs needed and estimate funds required. Size estimates are also used in assessing coverage and programme effectiveness.

Estimates of the size of the sex worker population, men who have sex with men and transgender people should be made for each sub-national area. Size estimates are extremely useful for programme planning, estimating burden of disease, geographic prioritisation of response, target setting, assessing coverage and evaluating effectiveness.

Methods

Methods for estimating the size of the population of sex workers, men who have sex with men, and transgender people in each area include:

- Capture-recapture method
- Nomination method
- Census and enumeration method

- Multiplier methods
- Population survey methods
- Network scale-up method
- Extrapolation

An overview of the size estimation methods are in Appendix 1, Tool 2 (pg.148).The following are tips for planning and conducting size estimations:

- The most important estimates are the estimates of the population in sub-national areas with evidence of a large or growing population of men who have sex with men, sex workers or transgender people.
- Because many of these populations are dynamic and populations may move in and out of a programme catchment area, estimates should specify whether the estimate is of the number of sex workers, men who have sex with men, and transgender people at one point in time (cross-sectional estimate) or the number of the population in the area over a certain period such as one year. If the population is very mobile, a cross-sectional estimate in one area may significantly underestimate the number of unique individuals that need services in that area over a 12 month period. Also, it is useful to assess turnover of most-at-risk populations because, while the size may remain constant, its membership may not.
- The least expensive and quickest size estimation methods are those that do not require surveys of the target population. For example, surveys of other populations may ask about sex work. Estimates of the percentage of people who engage in sex work can be used to "multiply up" an estimate of the total number of sex workers in the entire population.
- This guideline recommends conducting surveys of the target population in sub-national areas with large or growing HIV epidemics among men who have sex with men, sex workers and transgender people. Any survey of sex workers, men who have sex with men, and transgender people conducted for any purpose can be modified to obtain excellent estimates of the size of the population.
- Information from service delivery providers can similarly be used to estimate the size of the population if providers can estimate based on the number and characteristics of first-time and repeat users, what proportion of the total target population they fail to reach.
- Every method has its pitfalls and is subject to bias. Meetings across sub-national areas to discuss issues in size estimation and to share experiences and data are useful for interpreting the data.

What are the specific challenges related to most-at-risk populations?

With many most-at-risk populations engaging in illegal or stigmatized behaviours, any data collection activity, including estimations of population size, is challenging. Making size estimation an inclusive process that involves government and non-governmental organizations, as well as communities, forces people to confront their biases and assumptions, to make the process move forward more effectively.

One challenge is to safeguard the appropriate use of size estimations. There is a very real possibility that reliable estimates of the numbers of drug injectors, street-based sex workers or MSM men could lead

not to a public health response, but rather to a law-enforcement response. The likelihood of this happening depends on the national situation, but it should be carefully considered when undertaking, and above all when publicizing, the results of population size estimation efforts. A less damaging yet still problematic response is that authorities will simply ignore the results of a rigorous and transparent estimation and use less robust estimates that better suit their political agendas. Public health officials must weigh the costs of making credible estimates against the likelihood that these estimates will be used constructively.

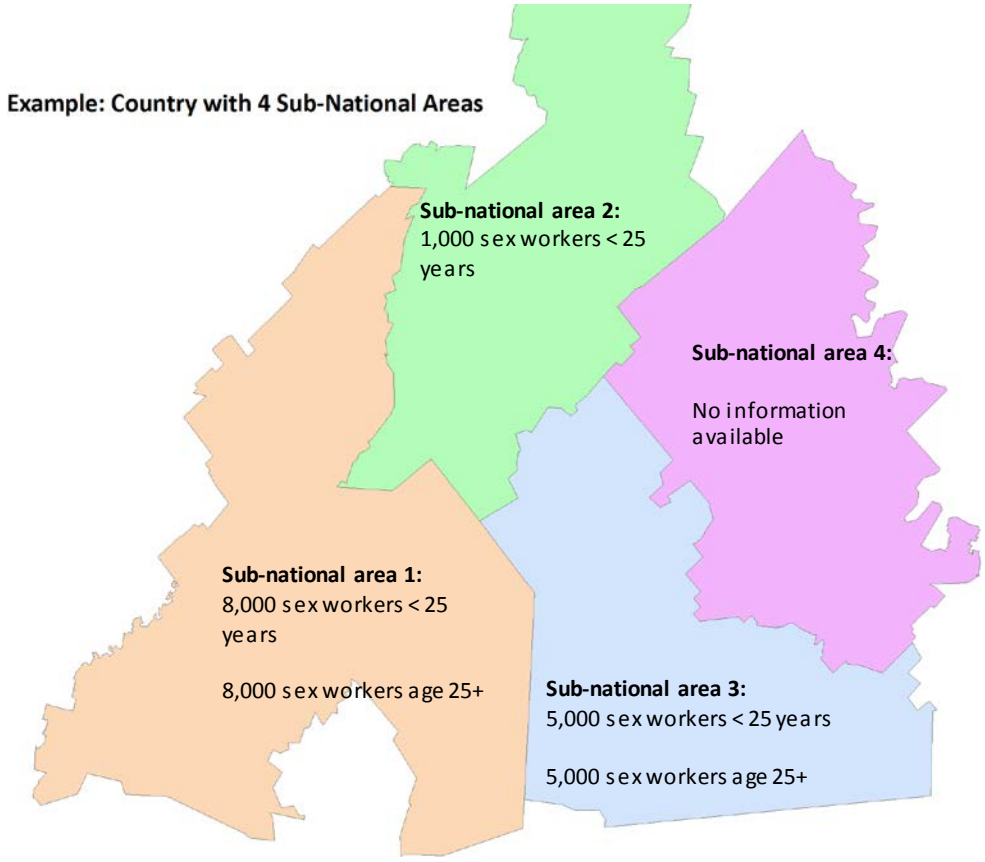
Many methods for estimating population sizes are based on mathematical calculations and require no contact with individuals. These methods are not designed to identify individuals who may be members of groups at high risk of HIV, or to facilitate access to those groups for programming. For ethical reasons, however, data collection and size estimations should go hand in hand with service provision.

Products

- Population size estimates for each key population in each sub-national area

Below is a map showing the number of key populations in each sub-national area.

Figure I.1.3 Mapping Female Sex Worker Population Size by Sub-national Area in a Fictitious Country



Further guidance on conducting size estimates:

- UNAIDS, WHO (2010). Guidelines on Estimating the Size of Populations Most at Risk to HIV. http://www.who.int/hiv/pub/surveillance/estimating_populations_HIV_risk/en/index.html
- UNAIDS, WHO (2009) Estimation of the size of high risk groups and HIV prevalence in high risk groups in concentrated epidemics. Geneva, UNAIDS. http://www.epidem.org/Publications/Amsterdam%20Report_July%202009.pdf
- UNAIDS (2006) M&E of HIV Prevention Programmes for Most-At-Risk Populations. A guide to monitoring and evaluating national HIV prevention programmes for Most-At-Risk Populations in low-level and concentrated epidemic settings; with applications for generalized epidemics.

	Key Question	Methods	Products and Data Use
1.2	What information is available about the extent of HIV infection among sex workers, men who have sex with men and transgender people?	1. Synthesis of existing HIV prevalence data 2. Incidence estimation methods	• Use information on geographic clustering of infection along with size estimates from Step 1.1 to identify **sub-national areas with greatest need for prevention services** • Use HIV prevalence/incidence data as a **baseline measure for evaluating the impact of HIV prevention programmes**

1.2.1 Synthesis of HIV prevalence data

HIV prevalence trends can identify sub-national areas where the need for prevention is greatest. Baseline prevalence estimates can be used to evaluate HIV prevention programs

Methods

Trends in HIV prevalence by geographic area, age and other important sub-groups provides important insight into the epidemic and is the standard method for monitoring the HIV epidemic among populations. Trends in HIV incidence are rarely available.

HIV prevalence is the percentage of people in a population who are currently infected. For example, a prevalence of 10% among transgender people indicates that 10% of all transgender people are infected

with HIV. Changes in HIV prevalence do not indicate whether the number of *new* infections is increasing or decreasing. Changes only indicate if the overall proportion of those infected with HIV is increasing or decreasing. HIV prevalence can increase even if there are no new cases of HIV infection. For example, prevalence can increase if there is a greater uptake of testing services combined with the fact that people live longer due to effective treatment.

HIV incidence is the number of new HIV infections over a period of time in a defined population initially free from infection. For example, an annual incidence of 5% among transgender people indicates that 5% of all transgender people initially uninfected at the beginning of the year became infected during that year. HIV prevention programmes aim to reduce the number of new infections and thus, decrease HIV incidence.

Monitoring HIV prevalence is usually conducted by the national unit responsible for HIV surveillance. Existing data may be wrong or incomplete. The following tips may help to improve the data over time:

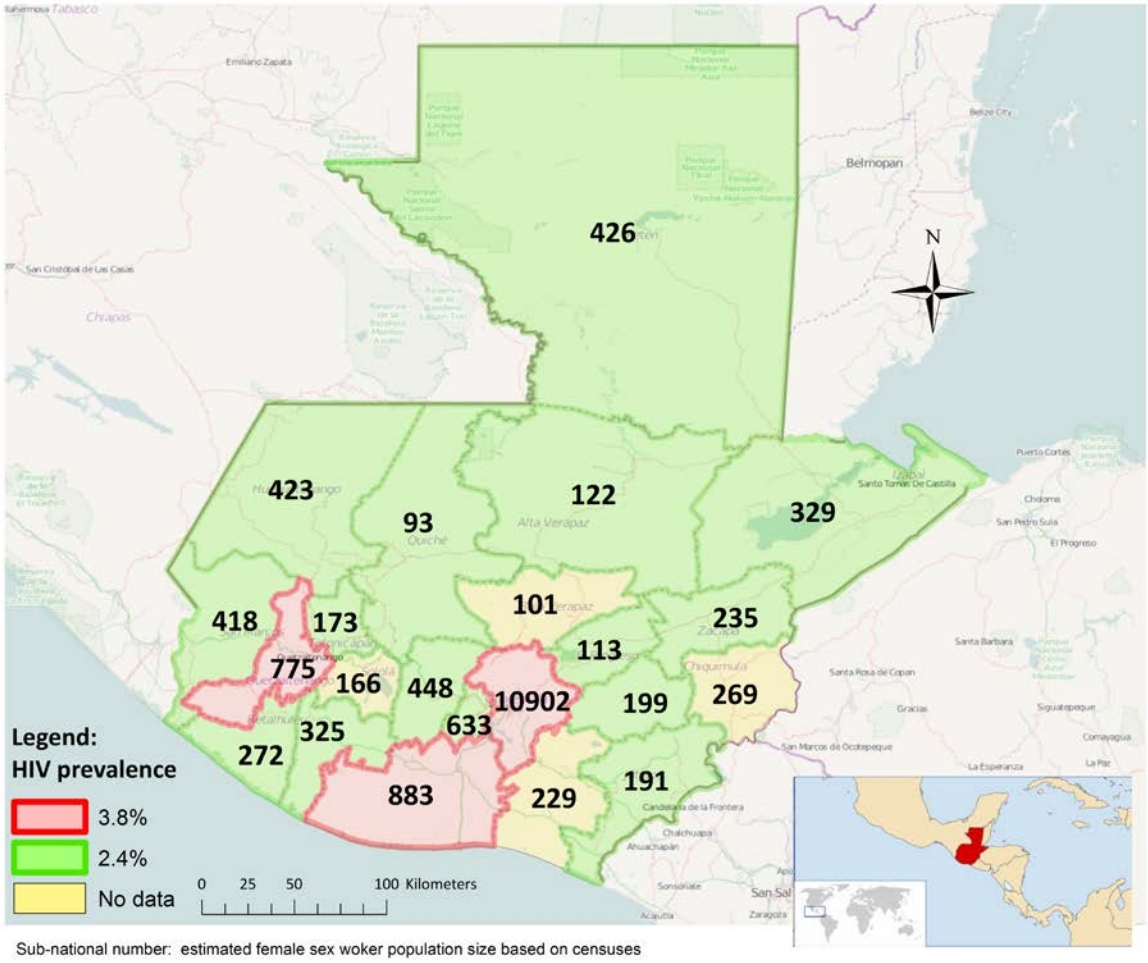
- Document the source of the HIV testing data and obtain copies of all protocols;
- Focus on HIV prevalence trends from the same areas using the same protocol;
- Identify problems or irregularities in protocol implementation; and
- Identify gaps in data and put into place appropriate data collection methods to address these.

Products

- Identification of priority prevention areas

The map below used GIS software to show the size and prevalence of the female sex worker population by sub-national area in Guatemala. Based on this map, it would be reasonable to focus prevention efforts in the four districts with more than 500 sex workers.

Figure I.1.4 Number of Female Sex Worker and Prevalence Estimates by Sub-national Area, Guatemala



Sub-national number: estimated female sex woker population size based on censuses

References: Morales-Miranda S, Hernández B, Caal M. [Size estimation for most at risk populations: Men who have sex with men and female sex workers in six cities in Guatemala]. Guatemala City: Del Valle University, UNAIDS; 2010.
Sánchez-Viesca AF. Final report of the follow-up study: Initiative for the strengthening of HIV/AIDS prevention and treatment actions among vulnerable groups and prioritized areas. Final report. Guatemala City: World Vision of Guatemala; Center for Strategic Health Development (CES); 2010.

Tool 3 (pg. 151) in appendix 1 summarizes HIV prevalence data. Tool 3 may be stored as a spreadsheet and used to document trends over many years. HIV prevalence estimates may be used in a Modes of Transmission Exercise (see next section.) Information showing areas of the country with highest prevalence of infection can be used to justify additional resources for areas with highest prevalence of infection. HIV prevalence data can be a baseline measure to evaluate HIV prevention programmes.

The table below is an example of Tool 3 for men who have sex with men. Information from the number tested in a bio-behavioural survey and the number of those who are HIV infected is shown for two age groups in each sub-national area and in the entire country. The two age groups are age 15-24 and age 25 and older. The table shows the estimated HIV prevalence for these age groups in each sub-national area and in the country using known information about the prevalence of infection and the size of the

population. There are two sub-national areas in the table, one with 15,000 men who have sex with men and the other with 35,000. In Area 1, 300 people age 15-24 and 300 people age 25 and older were tested for HIV. Using the estimated number of men who have sex with men in each age group, a total number of infected persons in the area can be estimated as well as the percentage of men who have sex with men of all ages who are infected with HIV.

Table I.1.1 Example of Tool 3: Summary of Size Estimates and HIV Prevalence Data by Area

Example of Tool 3: Summary of Size Estimates and HIV Prevalence Data: Number Tested, Percent HIV Positive and Estimates of Number of Men who Have Sex with Men Living with HIV in Each Sub-national Area								
		Year	Size Estimates Men who have Sex with Men					
			Age 15-24		Age 25+		Total	
Sub-National Area 1		2008	8000		7,000		15,000	
Sub-National Area 2		2008	20,000		15,000		35,000	
Total			28,000		22,000		50,000	
			Summary of Prevalence Data					
Sub-National Area 1		**Year**	**Number HIV+/ N Tested**	**% HIV+**	**Number HIV+/ N Tested**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV +**
	RDS Study	2008	30/ 300	10%	45/ 300	15%	(800+1050)/ 15000	12.3%
	RDS Study	2010	36/ 300	12%	51/ 300	17%	(960+1190)/ 15000	14.3%
Sub-National Area 2			**N HIV+/ N Tested**	**% HIV+**	**N HIV+/ N Tested**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**
	RDS Study	2008	54 / 300	18%	54 / 300	18%	(3600+2700)/ 35000	18%
	RDS Study	2010	54/ 300	18%	60 / 300	20%	(3600+3000)/ 35000	18.8%
National Estimates			**Number HIV+/ N Tested**	**% HIV+**	**Number HIV+/ N Tested**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**
	Prevalence Estimates	2008	(800+3600)/ 28,000	15.7%	(1050+2700)/ 22000	17.0%	(1850+6300)/ 50000	16.3%
		2010	(960+3600)/28,000	16.3%	(1190+3000)/ 22,000	19.0%	(2150+6600)/ 50000	17.5%

1.2.2 Incidence estimation methods

Estimates of the number of new infections among men who have sex with men and sex workers can help identify targets for HIV prevention efforts.

Methods

HIV prevalence data can be used to crudely assess HIV incidence using the following methods:

- Prevalence trends among young people: HIV prevalence trends among young people or new sex workers better reflect actual changes in the epidemic than trends among older people.
- It is critical that M&E data are collected and disaggregated by age and sex so that the programmatic response for most-at-risk adolescents can be monitored and evaluated. Adolescents are often overlooked in surveillance efforts because of legal issues or a perception that adolescents are not involved in risky behaviours. While effort should be made to include adolescents in data collection efforts, ethical and legal obligations need to be considered when collecting data on children under 18 in most countries (see Ethical Approaches to Gathering Information from Children and Adolescents in International Settings: Guidelines and Resources, Population Council 2005 for more information on this topic).
- Repeated cross-sectional estimates of prevalence among age cohorts: These methods are complex and outside the scope of these *Guidelines*.
- Models such as the UNAIDS Modes of Transmission Analysis (MoT) tool or UNAIDS Incidence Model, Asia Impact Model, UNAIDS Estimation and Projection Package (EPP) or UNAIDS Workbook Method. See Tool 4 (pg. 152) for an example of the Modes of Transmission spreadsheet. These models use data on HIV prevalence, the size of at-risk populations, and risk behaviour. The simple MOT spreadsheet estimates the mode of transmission for the next 1000 cases of HIV infection. See Step 8 for more information.

Note that models often require categorization of individuals into one risk group and therefore do not reflect the complexity of the epidemic.

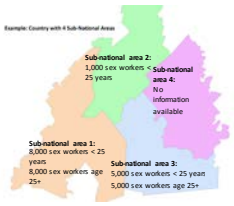
Products

- Estimates of the number of new infections among key populations at the national or sub-national level

Further guidance on estimating HIV prevalence and incidence:

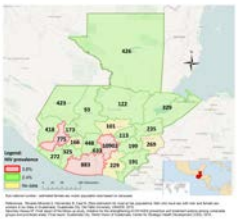
- UNAIDS Estimation and Projection Package: http://www.unaids.org/en/Dataanalysis/Tools/EstimationandProjectionPackageEPP
- Mahy M, Chhea C, Saliuk T, Varetska O, Lyerla R (2010). A Proxy Measure for HIV Incidence among Populations at Increased Risk to HIV. In: New Strategies and Methods for HIV/AIDS Surveillance in Low and Middle Income Countries. jHASE Special Issue 2(1): http://www.ieph.org/HASE/j-gateway.htm
- When and how to use assays for recent infection to estimate HIV incidence at a population level (WHO/UNAIDS, 2010) http://www.who.int/diagnostics_laboratory/hiv_incidence_may13_final.pdf
- Guidelines on surveillance among populations most at risk for HIV, (WHO/UNAIDS, 2011) http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2011/20110518_Surveillance_among_most_at_risk.pdf

E. Summary



This step helped you to develop:

- ❑ Map showing geographic distribution of population and size
- ❑ Prevalence and incidence table by sub-national area
- ❑ Map of prevalence estimates



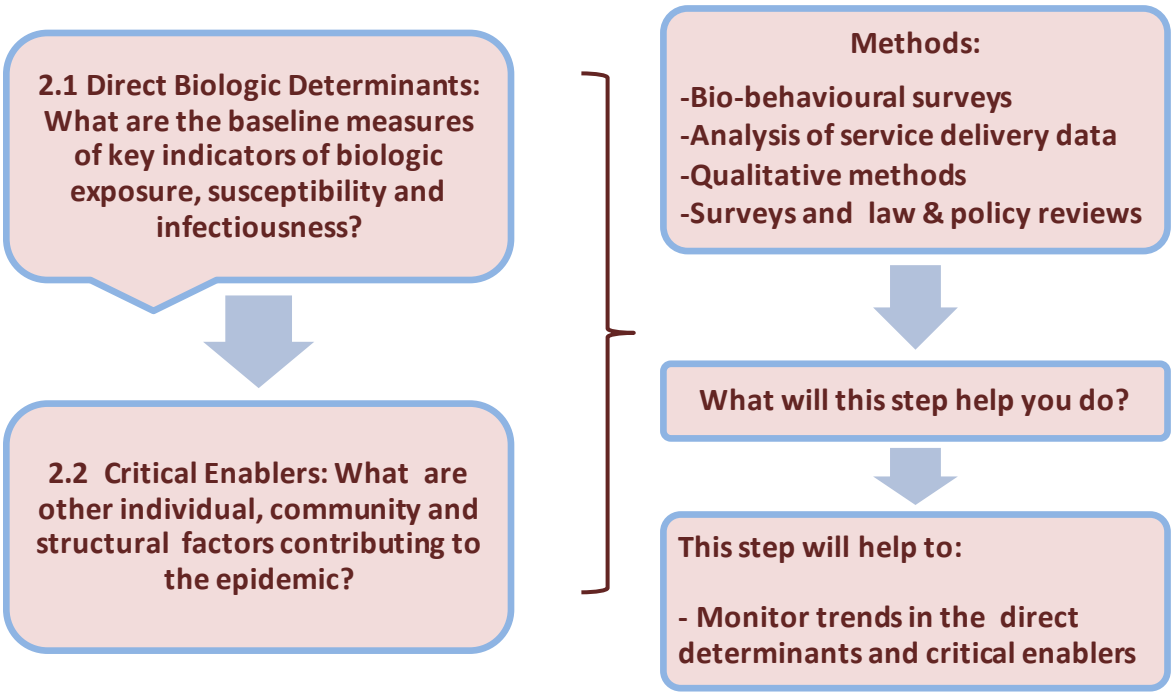
Step 2. Measure Determinants: What are the baseline estimates of the direct biologic determinants and critical enablers of HIV transmission?

A. Rationale – Why is this step important?

Step 2 describes how to monitor the direct biologic determinants and critical enablers of HIV transmission. Direct biologic determinants are the biological factors that directly increase exposure to HIV, infectiousness, or susceptibility to infection. Direct biologic determinants include the number of sexual partners, co-infection with other STI and lack of condom use. Critical enablers (social enablers and programme enablers) are the underlying individual, structural and community factors such as punitive laws, policies and practices, stigma and discrimination, gender inequality, etc. that indirectly cause HIV transmission by affecting direct determinants such as condom use and untreated STI.

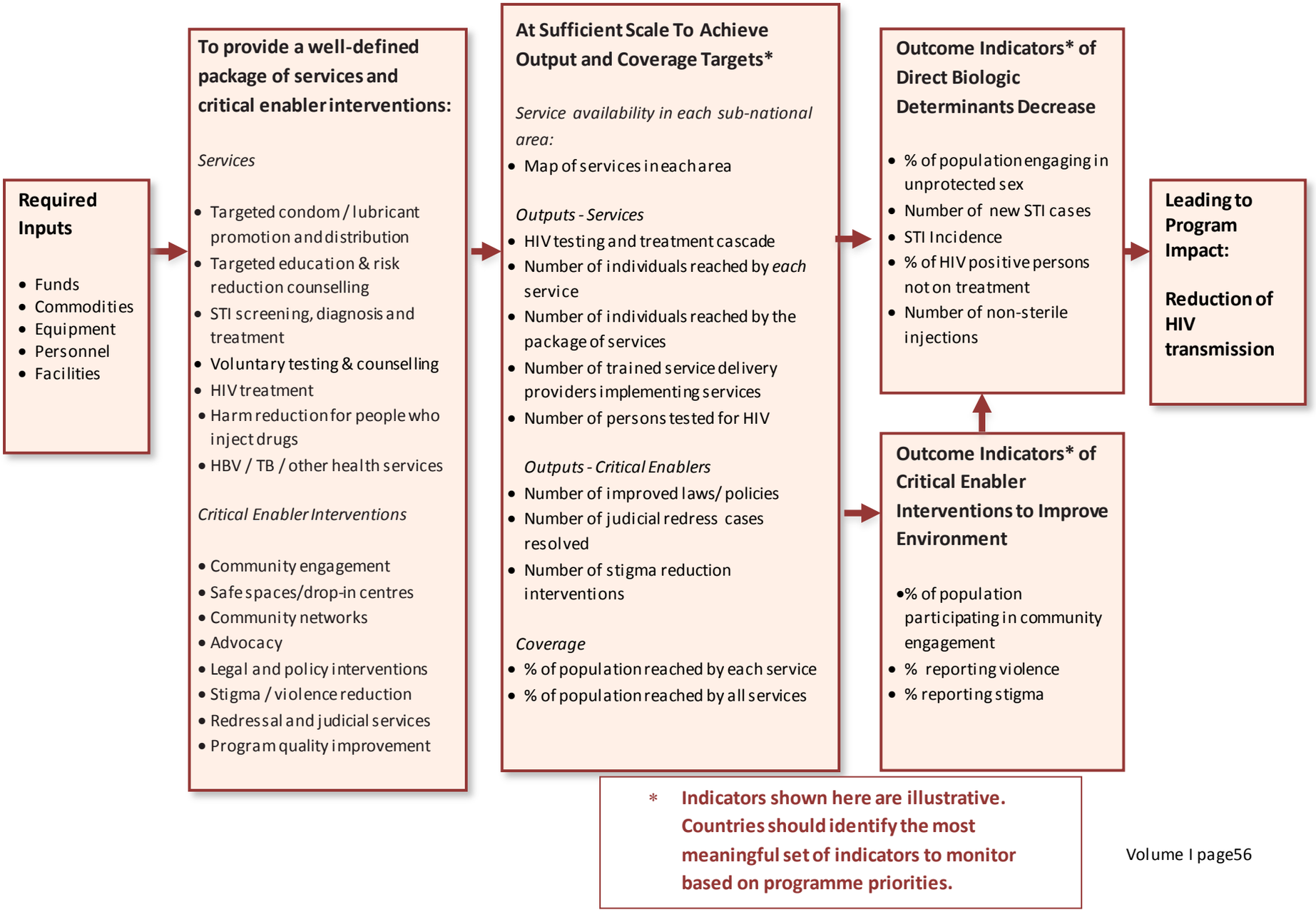
Figure I.2.1 Causal Pathway from Programmes to Prevention

B. Step 2 Flowchart of Key Questions, Methods and Data Use (Figure I.2.2)



According to the programme impact pathway, HIV prevention programmes will not reduce HIV transmission unless they reduce the direct biologic determinants of transmission: exposure to the virus, infectiousness, or biologic susceptibility. Figure I.2.3 lists outcome measures that can be used to monitor reductions in direct biologic determinants and critical enablers.

Figure I.2.3 General Programme Impact Pathway for Key Populations



C. How to answer key questions and use data: Overview for Step 2

	Key Question	Methods	Data Use
2.1	Direct biologic determinants: What are baseline measures of key indicators of biologic exposure, susceptibility and infectiousness?	1. Selection of measures 2. Repeated bio-behavioural surveys 3. Analysis of service delivery data	Use measures as **baselines for setting targets** (Step 3) and for monitoring trends in HIV transmission risk
2.2	Critical Enablers: What are other individual, community and structural factors contributing to the epidemic?	1. Selection of measures of individual, community and structural factors that contribute to the epidemic 2. Qualitative methods, surveys and law & policy reviews	Use measures of strengths and barriers as a **baseline for setting targets** (Step 3), prioritizing actions, and monitoring progress in addressing barriers and leveraging strengths

D. Methods and Tools

2.1.1 Selection of Measures for Direct Biologic Determinants

A key product is the estimated outcome measures of each biologic determinant of HIV transmission (for example, condom use at last sex). Baseline measures of biologic determinants of HIV transmission can be used to set targets and to monitor trends over time. There are many indicators to measure biologic determinants. See the Worksheet in Tool 5 (pg. 154). See also Steps 7 & 8. Box I.2.2 provides a checklist for assessing the adequacy of bio-behavioural surveys and ways to improve the value of surveys.

Methods

There is a Measure Selection Worksheet in the Appendix 1 (Tools 22, pg. 193 and 23, pg. 202) that lists the indicators that UNAIDS requests all countries to report as well as a list of measures that can be considered. Feedback from countries regarding the usefulness of the measure selection worksheet will be used to develop a set of recommended measures and to provide additional guidance on the use of the measures.

Measure selection includes selecting the method for collecting the information and specifying the sub-national areas where the indicators will be measured. This guideline recommends focusing on sub-national level indicators in areas identified in Step 1 as areas with greatest need for prevention

programming based on a review of the size of each population in each sub-national area and prevalence trends in those areas.

2.1.2 Bio-behavioural surveys

The best method for obtaining data for estimating the outcome measures is a bio-behavioural survey of a representative sample of the population. See Box I.2.1 for content of surveys. Bio-behavioural surveys of men who have sex with men, sex workers, transgender people are usually conducted every 2-3 years.

Box I.2.1 Bio-behavioural surveys seek information about the following:

What are the socio-demographic characteristics of men who have sex with men, sex workers, transgender people?

- Age
- Education
- Income

What individual level factors affect the vulnerability of the population and could be addressed by critical enabler interventions?

- Mobility and homelessness
- History of incarceration
- Poverty
- Sex work
- Education level, knowledge of transmission risks
- Exposure to stigma and discrimination
- Drug use

What are the sexual behaviours of men who have sex with men, sex workers, transgender people?

- Number of sexual partners
- Condom use
- Selling sex
- Age at first sex

Do people inject drugs?

- Frequency of drug injection and use of non-sterile needles
- Access to needle exchange programs and treatment

What is the prevalence of infection among the population?

- Prevalence of sexually transmitted infections (STIs) including HIV
- Prevalence of viral hepatitis B and C
- Number of men who have sex with men, sex workers, transgender people living with HIV and receiving antiretroviral therapy (ART)

To what extent has the population accessed services?

- For each service, whether accessed in the past year and month
- Whether tested for HIV in past 12 months and aware of HIV status
- Whether participated in community strengthening activities

See Tool 11 (pg. 175) for sample survey questions and Tools 22 (pg. 193) and 23 (pg. 202) for the measures associated with each survey question.

Box I.2.2 Sample checklist of questions for assessing the usefulness of available survey data for monitoring and evaluation of HIV prevention programmes

	Question
1	Are survey protocols, questionnaires and data from all previous surveys available for use by the national monitoring and evaluation unit?
2	Does the survey data include HIV test results that can be linked to survey respondents?
3	Have surveys been routinely conducted in the sub-national areas where the most men who have sex with men, sex workers, transgender people are thought to live?
4	Have the surveys been routinely conducted in the sub-national areas suspected of having growing or new HIV epidemics among men who have sex with men, sex workers, transgender people?
5a	Is the sample size sufficient (i.e., at least 500) in each sub-national area of interest?
5b	Based on information from the rapid assessment, do you plan to oversample people younger than 25?
6a	Were ethical approvals obtained for the surveys?
6b	Did the surveys clearly request and obtain informed consent from respondents?
6c	Were incentives given for participation?
7a	Is the sampling process reasonable, of scientific merit, and well described?
7b	What percentage of participants refused to participate?
8a	Were questions posed for measuring all of the recommended indicators?
8b	Is each numerator and denominator for each indicator available from the survey data?
9a	Were results of previous surveys shared at the sub-national level?
9b	With service delivery providers?
9c	With members of the population surveyed?

2.1.3 Analysis of service delivery data

In the absence of survey data, information from users of the service delivery providers can provide information about HIV transmission. See the Tools 9 (pg. 164) and 10 (pg. 172) for examples of a User Encounter Forms that obtain information on condom use and number of partners. Interpreting measures from service delivery data requires caution because the measures miss people who do not get services.

Products

- Baseline estimates of biologic determinants of HIV transmission from bio-behavioural surveys and service delivery data

Box I.2.3 Baseline estimates of condom use among sex workers in countries that reported indicator to UNAIDS, 2011

G2 Percentage of female sex workers reporting the use of a condom with their most recent client					
Country	**Percentage**	**Country**	**Percentage**	**Country**	**Percentage**
Afghanistan	1	Eritrea	71	Nigeria	89
Albania	77	Estonia	98	Pakistan	35
Algeria	44	Ghana	92	Panama	94
Angola	74	Greece	5	Papua New Guinea	80
Argentina	99	Guinea	77	Paraguay	95
Armenia	93	Guinea-Bissau	93	Philippines	65
Azerbaijan	53	Guyana	94	Portugal	95
Belarus	85	Haiti	90	Korea	80
Belize	67	Honduras	79	Romania	89
Benin	80	Indonesia	58	Rwanda	80
Bolivia	96	Jamaica	91	Senegal	94
Bosnia	88	Japan	40	Serbia	87
Brazil	90	Kazakhstan	96	Sierra Leone	71
Bulgaria	89	Kyrgyzstan	88	Singapore	99
Burkina Faso	98	Lao PDR	92	Sri Lanka	89
Burundi	91	Latvia	85	Tajikistan	75
Cameroon	73	Lebanon	96	Thailand	95
Cape Verde	55	Malaysia	61	Macedonia	89
Chad	38	Mali	98	Timor Leste	36
Chile	73	Mauritania	88	Togo	91
China	88	Mauritius	88	Tunisia	55
Comoros	34	Mexico	65	Uganda	82
Cote d'Ivoire	93	Mongolia	90	Ukraine	92
Cuba	70	Montenegro	84	Uruguay	76
DRC	24	Morocco	50	Uzbekistan	84
Djibouti	71	Myanmar	96	Vanuatu	39
Dominican Republic	81	Nicaragua	96	Vietnam	87
Equatorial Guinea	14	Niger	94	Zimbabwe	68

Reference: UNAIDS (2012). AIDSinfo.

	Key Question	Methods	Products and Data Use
2.2	Critical Enablers: What are other individual, community and structural factors contributing to the epidemic?	1. Rapid assessment and community consultation to select measures 2. Qualitative methods, surveys and law & policy reviews	Use measures of strengths and barriers as a **baseline for setting targets** (Step 3), prioritizing actions, and monitoring progress in addressing barriers and leveraging strengths

2.2.1 Rapid Assessments including community consultations to select of measures of individual, community and structural factors that indirectly contribute to the epidemic including measures of an enabling environment

Rapid assessments describing the socio-economic and political context and situation of key populations at higher risk can be used to increase understanding of the context of HIV epidemics, raise awareness of issues regarding the vulnerability of these populations, and engage community led organizations. A rapid assessment can help identify sub-groups of each population that require separate monitoring; identify sub-national areas where the need for prevention programs may be greatest; inform indicators; identify gaps in knowledge that could be obtained through additional data collection efforts; raise awareness among policy makers and the public; and provide input for decision-making about HIV prevention. A rapid assessment can also be used to collect information and select measures of individual, community and structural factors that indirectly contribute to the epidemic. Effective critical enabler interventions will result in an improvement of these measures. A national forum of people from community-led organizations of men who have sex with men, sex workers and transgender people as well as from governmental, non-governmental and international organisations can discuss the assessment and Key Question 2.2.

Methods

The previous section addressed indicators related to direct risk of transmission (e.g., condom use, number of sexual partners, treatment of STI). Selection of measures of critical enablers will vary by country and sub-national area. The main method for identifying the most appropriate measures is community consultation. See also Section 2.1.1 and the section below. It is usually helpful to have some proposed measures prior to conducting qualitative studies and law and policy reviews. An example of outcome measures is the percentage of the population participating in community engagement. This measure may be identified as important during the assessment and be measured in the bio-behavioural survey.

In order to identify the critical enablers of HIV transmission it is necessary to understand the cultural, economic and political country and local context. Rapid assessments rely on document review and

qualitative methods such as discussions and in-depth interviews. A rapid assessment will reveal the history and context of the HIV epidemic country and among key populations at higher risk, increase the involvement of these, increase the involvement of the populations in the response, and identify in a preliminary way the most apparent strengths and weaknesses of current programs.

Rapid assessments can use multiple methods including:

- Document review including surveillance reports, published research, qualitative studies, and newspaper accounts
- Community informant interviews
- In-depth interviews with stakeholders, members of the community, governmental officials, advocacy groups and service delivery providers

Please see Tool 6 (pg. 155) for topics to address in a rapid assessment for sex workers, men who have sex with men, and transgender people

Products

- Results or report from rapid assessment identifying issues of access, stigma, violence and identifying barriers to enabling environment
- Outcomes to address through critical enabler interventions

Further guidance on critical enablers:

- Schwartländer B, Stover J, Hallett T, et al. Investment Framework Study Group. Towards an improved investment approach for an effective response to HIV/AIDS. Lancet. 2011 Jun 11;377(9782):2031-41. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2811%2960702-2/fulltext#article_upsell
- UNDP and UNAIDS (2012). Understanding and acting on critical enablers and development synergies for strategic investments. http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/understanding-and-acting-on-critical-enablers-and-development-sy/

Further guidance on rapid assessments:

- WHO (2004). Rapid Assessment and Response Adaptation Guide on HIV and Men who have Sex with Men. WHO, Geneva, http://www.who.int/hiv/pub/prev_care/en/msmrar.pdf
- IPPF, UNFPA, WHO, UNAIDS, GNP+, ICW and Young Positives (2009). Rapid Assessment Tool for Sexual & Reproductive Health and HIV Linkages; A Generic Guide. http://srhhivlinkages.org/uploads/docs/articles/rapidassessmenttoolsrhlinkages_2009_en.pdf
- Population Council and UNFPA (2003). Rapid Needs Assessment Tool for Condom Programming. http://www.unfpa.org/webdav/site/global/shared/documents/publications/2003/condom_programming.pdf
- FHI (2001). HIV/AIDS rapid assessment guide. Triangle Park, NC, FHI and USAID, USA http://www.fhi.org/NR/rdonlyres/evtjsjyoitissfvez7qoi3qhey5vgu5dxukffl3xgjltna5nsxrdmbu4tj7wakyoyaoyxzz7etrkjp/rhapassessmentguide.pdf
- A Methodological Model for Rapid Assessment, Response, and Evaluation: The RARE Programme in Public Health http://fmx.sagepub.com/content/13/2/137.short?rss=1&ssource=mfc

2.2.2 Surveys, qualitative studies, law and policy reviews

Measures of contributing factors of HIV transmission are critical for monitoring progress at creating an enabling environment. Understanding the most important factors and addressing them is a key step in reducing the vulnerability of populations. Monitoring and in-depth analysis of barriers to effective service delivery helps to design interventions to address these barriers and track whether they succeed in changing the targeted barriers. Likewise, identifying and tracking individual, community and structural strengths can be employed to increase the availability, access, and effectiveness of HIV prevention services.

Methods

Once indicators have been selected, methods to estimate measures of critical enablers include:

- Surveys and questionnaires (e.g., questions on HIV-related knowledge or on stigma and discrimination can be included in bio-behavioural surveys)
- Qualitative methods, including:
  - Focus group discussions (e.g., on discrimination experienced by key populations at higher risk and people living with HIV in the local community)
  - Individual in-depth interviews (e.g., on personal barriers to accessing HIV-related services)

  - Observations (e.g., observing the attitude of health care providers in dealing with men who have sex with men, sex workers, transgender people)
  - Rapid assessments (such as the rapid assessment and response method described in Step 1)
- Law and policy reviews (e.g., on criminalization of same-sex relations and sex work)
- Legal redress report

One tool for assessing the policy environment and social enablers is the Global AIDS Response Progress Reporting (GARPR) National Composite Policy Index (NCPI) from UNAIDS. Tools 22 (pg.196) and 23 (pg.205), number U3, list 16 questions that apply to men who have sex with men, sex workers, transgender people. This instrument relates to the laws and policies in a country that can help or hinder HIV prevention efforts. They can reveal community engagement in addressing the HIV epidemic among men who have sex with men, sex workers, transgender people.

A report on judicial redress is another way to measure and monitor social enablers. Individuals who are discriminated against or experience violence due to their sexual orientation have the right and obligation to report offences to the corresponding law enforcement or human rights agency. To monitor the frequency and in Step 3, the response to claims made, a report for the national and sub-national areas should be maintained and tracked over time.

Strategies to reduce transmission of HIV must address the barriers that limit the use of condoms. These can be legal barriers, community level barriers, and barriers at the individual level. The negative effects of stigma on HIV prevention efforts with men who have sex with men, sex workers, transgender people probably cannot be over-estimated. Stigma can affect the uptake of services, self-empowerment, self-efficacy in insisting on condom use, and the likelihood that HIV status will be disclosed. Many barriers, however, are local and include activities by police, lack of training for medical providers on issues related to working with men who have sex with men, sex workers, transgender people, and whether HIV prevention services for men who have sex with men, sex workers, transgender people are available and accessible.

Products

- Baseline estimates of critical enablers of HIV transmission among key populations
- Policy, law, judicial redress report

Further guidance on identifying contributing factors:

- Poundstone KE, Strathdee SA, and Celentano DD (2004). The social epidemiology of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome. Epidemiologic Reviews, July 2004; 26(1):22-35. http://epirev.oxfordjournals.org/content/26/1/22.full
- WHO (2004). Rapid Assessment and Response Adaptation Guide on HIV and Men who have Sex with Men. WHO, Geneva. http://www.who.int/hiv/pub/prev_care/en/msmrar.pdf
- Pan American Health Organization (2010). Blueprint for the Provision of Comprehensive Care to Gay Men and Other Men who Sex with Men (MSM) in Latin America and the Caribbean. Pan American Health Organization, Washington, D.C. http://new.paho.org/hq/dmdocuments/2010/Blueprint%20MSM%20Final%20ENGLISH.pdf
- Blueprint for the Provision of Comprehensive Care for Trans Persons and their Communities in Latin America and the Caribbean
- Report of the Global Commission on HIV and the Law www.hivlawcommission.org

E. Summary

This step helped you to develop:

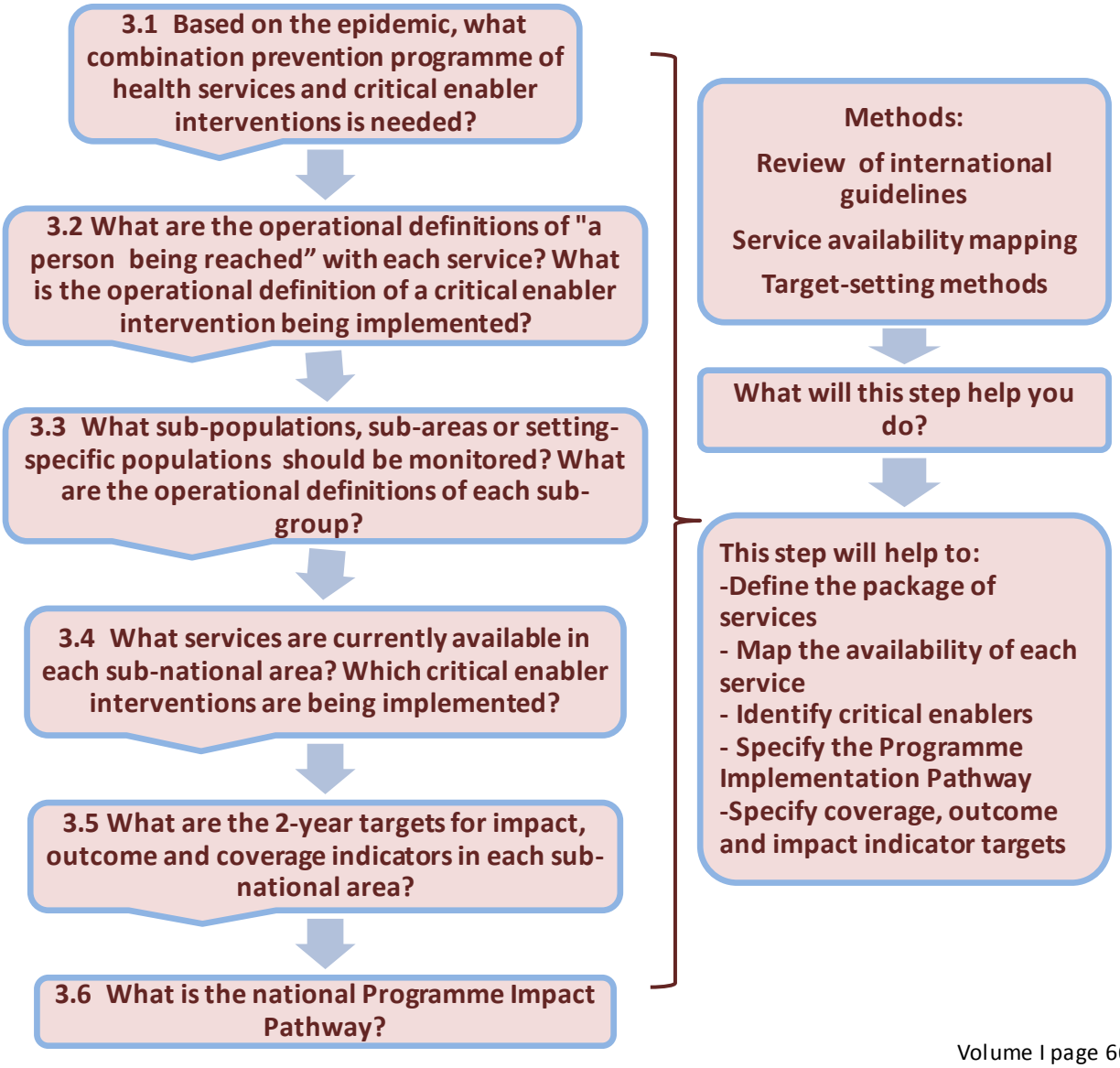
❑	Community consultation assessment covering issues of access, stigma, violence and identifying barriers to enabling environment
❑	Survey of key population providing baseline estimates of prevalence, behaviors, use of health services, and perceived barriers to health
❑	Policy, law, judicial redress report

Step 3: Know Your Response and Set Targets: How is the combination prevention programme defined and what are the targets for outputs, coverage, outcomes and impact?

A. Rationale –Why is this step important?

In Step 3 targets are set for coverage, outcome and impact indicators, thus monitoring performance. These targets are based on the current response including the availability of services and baseline indicator values. The response should be based on the data from Step 1: Know your epidemic (page 38-50) and Section E., The recommended combination prevention programme for key populations (pages 9-18).

B. Step 3 Flowchart of Key Questions, Methods and Data Use (Figure I.3.1)



C. How to answer key questions and use data: Overview for Step 3

	Key Question	Methods	Data Use
3.1	Based on the epidemic, what combination prevention programme of health services and critical enabler interventions is needed?	Review of international guidelines and available information to specify combination prevention programme Review of NCPI Checklist for social enablers	• To define the programme that will be monitored
3.2	What are the operational definitions of "a person being reached" with each service? What is the operational definition of a critical enabler intervention being implemented?	A meeting to agree on operational definitions	• To specify the operational definitions so that coverage can be estimated
3.3	What sub-populations, sub-areas or setting-specific populations should be monitored? What are the operational definitions of each sub-group?	Review of surveillance and assessments from Step 2	• To specify sub-groups that will be used by all sub-national areas for monitoring coverage and tracking prevalence
3.4	What services are currently available in each sub-national area? Which critical enabler interventions are being implemented?	Mapping	• Use service availability maps and assessments to identify gaps • Sub-national and national aggregation
3.5	What are the 2-year targets for impact, outcome and coverage indicators in each sub-national area?	Target-setting methods	• Use targets to assess programme performance
3.6	Based on the above, what is the national Programme Impact Pathway?	Meeting to specify Programme Impact Pathway	• To describe the logic of the programme and identify indicators to monitor

D. Methods and tools

	Key Question	Methods	Data Use
3.1	Based on the epidemic, what combination prevention programme of health services and critical enabler interventions is needed?	Review of international guidelines and available information to specify combination prevention programme Review of NCPI Checklist for social enablers	• To define the programme that will be monitored

3.1 Review of international guidelines to specify HIV combination prevention programme

In Step 2, outcome measures that must be changed to reduce the transmission of HIV were described. In this step, the elements of the combination prevention programme necessary to make those changes will be specified. National responses to the HIV epidemic vary by country. The recommended combination prevention programme described in Section E (pg. 17) is based on international normative guidance and policy documents for HIV prevention for men who have sex with men, sex workers and transgender people and should be adapted to the context of the epidemic in each country. Randomized controlled trials have shown that ART reduces the risk of transmission by 96% among sero-discordant heterosexual couples. Although similar trials for key populations do not exist, the principal of reducing individual viral load through ART for prevention is applicable to sex workers, men who have sex with men and transgender people. Gaps in diagnosis, treatment and adherence should be documented and included in output and outcome targets.

There are two parts to the combination prevention programme:

- The package of services
- The critical enabler interventions that improve the delivery of services and improve the social environment

For example, here is the recommended list of services and recommended critical enabler interventions for sex workers (see Section E, pg. 17):

- Targeted condom and condom-compatible lubricants promotion and distribution
- Targeted education and HIV risk reduction counselling through outreach and peer education
- STI diagnosis and treatment
- Voluntary HIV testing and counselling linked to care and treatment for sex workers
- Antiretroviral treatment for sex workers based on current WHO recommendations
- Programs to ensure adherence and retention among sex workers
- Harm reduction programmes based on the current WHO recommendations
- Programmes to include sex workers in catch-up HBV immunization strategies

- Sustained community mobilization and engagement
- Safe spaces such as drop-in centres
- Venue-based delivery of services
- Collective networks and self-help groups for sex workers
- Advocacy for sex workers including advocacy to increase political commitment
- Enabling legal and policy environments in the context of HIV and sex work
- Community-centered programmes addressing stigma, discrimination, and violence
- Redressal and (judicial) services to address violence, discrimination, rights violations
- Activities to increase the availability, accessibility and acceptability of health services

Methods

A meeting should be held to identify the components that will be included in the national HIV combination prevention programme.

The first objective of the meeting should be to identify what is necessary for the country in terms of provision of services and critical enabler interventions in order to achieve its objectives in terms of reducing the biologic determinants of HIV transmission rather than identify only those components that are feasible or can be funded. Later, decisions can be made for prioritizing components of the program. A document should be developed that explains the combination prevention programme.

The UNAIDS National Commitments and Policy Instrument (NCPI) addresses social enablers at the national level, and countries can use this tool to identify barriers to an effective programmatic response.

Box I.3.1 Checklist for social enablers based on the National Commitments and Policy Instrument (NCPI)

	U4 Enabling Environment Checklist for Sex Workers (Contributing factors/social enablers assessment)	Yes	No
U3.1	Has the country developed national multisectoral strategy to respond to HIV that addresses sex workers?	Y	N
U3.2	Has the country ensured "full involvement and participation" of civil society including sex workers in the development of the multisectoral strategy?	Y	N
U3.3	Does the country have a mechanism to promote interaction between government, civil society organizations including organizations of sex workers], and the private sector for implementing HIV strategies/programmes?	Y	N
U3.4	Does the country have non-discrimination laws or regulations which specify protections for sex workers?	Y	N
U3.5	Is the country free of laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for sex workers?	Y	N
U3.6	Does the country have a policy or strategy to promote information, education and communication and other preventive health interventions for key or other vulnerable sub-populations such as sex workers?	Y	N
U3.7	Does the country have a policy or strategy that addresses condom promotion for sex workers?	Y	N

U3.8	Does the country have a policy or strategy that addresses HIV testing and counselling for sex workers?	Y N
U3.9	Does the country have a policy or strategy that addresses stigma and discrimination reduction for sex workers?	Y N
U3.10	Does the country have a policy or strategy that addresses targeted information on risk reduction and HIV education for sex workers?	Y N
U3.11	Does the country have a policy or strategy that addresses vulnerability reduction (e.g. income generation or community empowerment, or social protection) for sex workers?	Y N
U3.12	Has the country identified the specific needs for HIV prevention programmes for sex workers?	Y N
U3.13	To what extent has HIV prevention been implemented? Do the majority of sex workers in need have access to risk reduction?	Y N
U3.14	Is there a central national database with HIV-related data on key populations such as sex workers?	Y N
U3.15	Does the country a policy to ensure equal access for sex workers to HIV prevention, treatment, care and support?	Y N
U3.16	Does the country have municipal level comprehensive HIV prevention, treatment and care programmes implemented for and with sex workers?	Y N

Each country should disseminate the nationally recommended programme of health services and critical enabler interventions for sex workers, men who have sex with men, and transgender people widely.

Products

- Defined national HIV combination prevention programme including of health services and critical enabler interventions

	Key Question	Methods	Data Use
3.2	What are the operational definitions of "a person being reached" with each service? What is the operational definition of a critical enabler intervention being implemented?	A meeting to agree on operational definitions	• To specify the operational definitions so that coverage can be estimated

3.2 Consultation to specify operational definitions of HIV combination prevention programme

In order to assess program coverage, operational definitions to determine who has been reached with the service are required. (see Box I.3.2). Operational definitions of what is meant by being reached

should be as simple as possible. Operational definitions should be in a format that can be easily translated into a few easily answered questions. For standardized reporting and aggregating data across service providers and sub-national areas, focus the definitions of "reached" on the use of the services and the frequency and/or intensity of service utilization.

The definition of the national combination prevention programme of health services and critical enabler interventions is used to define coverage indicators for each individual service and intervention offered and for the complete package. This is important for planning of the service delivery but also for monitoring purposes such as data collection and reporting on who should be counted as "reached with HIV prevention package" received services.

The national definition of a "person reached" with specific service or with the entire package of services is used to standardize data collection. See Section E (pg. 17) and Step 3.1 on defining a national combination prevention programme of health services and critical enabler interventions.

Methods

Below are some examples of operational definitions. They include minimal assessments of the quality of the service.

Box I.3.2 Illustrative definition of what is meant by "reached with a service"

Services	Illustrative Definition of "person reached with the service" : Person has been reached with the program if she or he….
Targeted condom and condom-compatible lubricants promotion and distribution	Accessed free condoms from a programme targeting members of the key population at least once during the past 12 months
Targeted education and HIV risk reduction counselling through outreach and peer education	Received tailored messages through either written or face-to-face communication about HIV risk reduction from trained outreach workers including trained peer educators at least once in the past 12 months
STI diagnosis and treatment	Was screened according to national syndromic protocol or tested for evidence of sexually transmitted infections at least once in the past 12 months and fully treated if indicated.
Voluntary HIV testing and counselling linked to care and treatment for sex workers	Was tested for HIV infection using national counselling and testing protocol and linked within 1 month to appropriate assessment for treatment if the HIV test is positive
Antiretroviral treatment for sex workers based on current WHO recommendations	Tested positive for HIV infection and found eligible for ART based on current WHO and National guidelines and subsequently received ART within 1 month of being found eligible
Programmes to ensure adherence and retention among sex workers	Ever received ART and adhered to treatment in the past month

Harm reduction programmes based on the current WHO recommendations	Was eligible for harm reduction and participated in harm reduction program in the past month (See WHO guidelines.)
Programmes to include sex workers in catch-up HBV immunization strategies	Received HBV immunization
The entire package of services	Met the definition of being reached for each of the above services

This guideline recommends that countries adopt a more complete definition of being reached with HIV prevention if possible than the simpler definition currently recommended by the Global AIDS Response Progress Reporting guidelines. According to those guidelines, a person is considered to be reached with an HIV prevention programme if he/she answers "Yes" to both of the following questions:

1. Do you know where you can go if you wish to receive an HIV test?
2. In the last twelve months, have you been given condoms (e.g. through an outreach service, drop-in centre or sexual health clinic)? (GARPR, 2011)

Knowing where to receive an HIV test and accessing free condoms are important, but does not reflect the full package of services and may not be sufficient to decrease outcome indicators and prevent HIV transmission.

Operational definitions are also required to monitor the implementation of critical enabler interventions. Below are some examples of indicators of implementation of critical enabler interventions. See also Box 2 (pg. 19).

Box I.3.3 Illustrative Operational Definitions of Critical Enabler Interventions

Critical Enabler Interventions	Illustrative Definition of Implementation of Critical Enabler Intervention for Sex Workers In A Sub-National Area If the following conditions have been met:
Sustained community mobilization and engagement	An organization of sex workers has been established and meets at least once a year and invites all sex workers in the sub-national area to attend
Safe spaces such as drop-in centres	An identified place promoted by sex workers is available in the sub-national area where members of the population can obtain risk reduction information, information about community mobilization, and there is a system set up for responding to moments of crisis such as violence
Venue-based delivery of services	HIV testing and condom distribution are provided in at least 10% of known venues where sex workers work in addition to clinic settings
Collective networks and self-help groups for transgender people	Evidence that transgender people meet in groups in order to discuss common problems
Advocacy for sex workers including advocacy to increase political commitment	Texts of speeches, emails or pictures of protests where advocacy for sex workers has occurred
Enabling legal and policy environments in the context of HIV and sex work	Evidence of removing laws that are barriers to the uptake of HIV services in the context of sex work
Community-centered programmes addressing stigma, discrimination, and violence	Descriptions of programmes including evidence of participation of key populations at higher risk in the design of the programme and evidence that the objective of the program is reduction of stigma, discrimination or violence
Redressal and (judicial) services to address violence	The existence of legal clinics, hotlines or names of persons including attorneys who are willing to be provide redressal and judicial services
Activities to increase the availability, accessibility and acceptability of health services	Evidence that a quality assessment of a service has been conducted and that the recommendations arising from that assessment have been implemented and improved the availability, accessibility and acceptability of services.

Products

- Operational definitions of being reached with each service offered as part of the national combination prevention programme
- Operational definitions of being reached with a package of health services that make up the national combination prevention programme

	Key Question	Methods	Data Use
3.3	What sub-populations, sub-areas, and/or setting-specific populations should be monitored? What are the operational definitions of each sub-group?	• Review of surveillance and assessments from Step 2	• To specify sub-groups that will be used by all sub-national areas for monitoring coverage and tracking prevalence

3.3. Guidelines review and consensus meeting to operationalize definitions of population and sub-groups

Standard operational definitions should be disseminated to national, the sub-national and service delivery levels and actively promoted so that data can be aggregated across levels and compared across sub-national areas. The operational definitions should be aligned with definitions used by surveillance programs so that programs can compare monitoring indicators and surveillance indicators.

Methods

One of the requirements of a good monitoring and evaluation system is thoughtful translation of information about the characteristics of the epidemic into strategies for reducing transmission among key populations. There are clear global definitions of sex workers, men who have sex with men and transgender people (see Section B) but an operational definition of each population and important sub-populations is needed as for monitoring and evaluation. Well-specified operational definitions of sub-groups take into account the culture and context of the epidemic. Operational definitions of sub-groups should specify measurable behaviours that define membership in each sub- population. For example, an operational definition for a street-based sex worker may be a "person who has solicited money on the street in exchange for sex in the past 3 months". The populations of sex workers, men who have sex with men, and transgender people are not mutually exclusive and the operational definitions of sub-groups should take into account any overlaps. The operational definition of membership in a sub-population is used in surveillance, size estimation, assessment of coverage, and measuring program effectiveness.

Operational definitions are essential for interpreting trends over time, across sub-national areas, and among service delivery providers. Operational definitions should reflect the active input of national, sub-national, service delivery levels and community-led organizations. Service delivery providers can further segment the population in order to tailor prevention efforts (see Volume II) to the local setting. Operational definitions for M&E may focus on specific sub-populations at higher risk.

Examples of operational definitions of sub-groups that could be monitored include:

- Women aged 18 and older who work in brothels identified by a systematic mapping of all brothels meeting the national definition of a brothel

- Men who have had anal sex with another man in the past 12 months and live in a specific geographic area
- Persons who self-identify as transgender, male-to-female (MTF) or female-to-male (FTM) or transsexual (for example, hijra, kathoey, or waria)

Below is an example of baseline indicators of HIV and other sexually transmitted infection for two groups of sex workers in a country in the Caribbean. The large difference in prevalence confirms that these two groups should be monitored separately. Often street-based sex workers have higher prevalence of infection and are harder to reach with services. This sub-group of sex workers is often valuable to monitor separately.

Table I.3.1 Example of HIV and STI baseline prevalence by sub-group

	Street-based Female Sex Workers	Other Female Sex Workers
Gonorrhea	10.3	6.1
Chlamydia	14.5	16.6
Trichomonas	26.1	18
Syphilis Bioline	16.4	5.3
HIV	7.9	2.4

Products

- Standard operational definitions of sub-populations to be monitored

	Key Question	Methods	Data Use
3.4	What services are currently available in each sub-national area? Which critical enabler interventions are being implemented?	Mapping	• Use service availability maps and assessments to identify gaps • Sub-national and national aggregation

3.4 Service availability mapping

Mapping the availability of existing services identifies gaps in services.

Methods

Map service availability by bringing together knowledgeable people to review available information on the services provided in the country. The WHO Health Information Systems website (see Additional Resources) has a full protocol for a Service Availability and Readiness Assessment (SARA). Use the protocol for mapping all available HIV prevention services, including services for men who have sex with men, sex workers, transgender people, the general population, and youth. This protocol includes forms to collect information at health facilities.

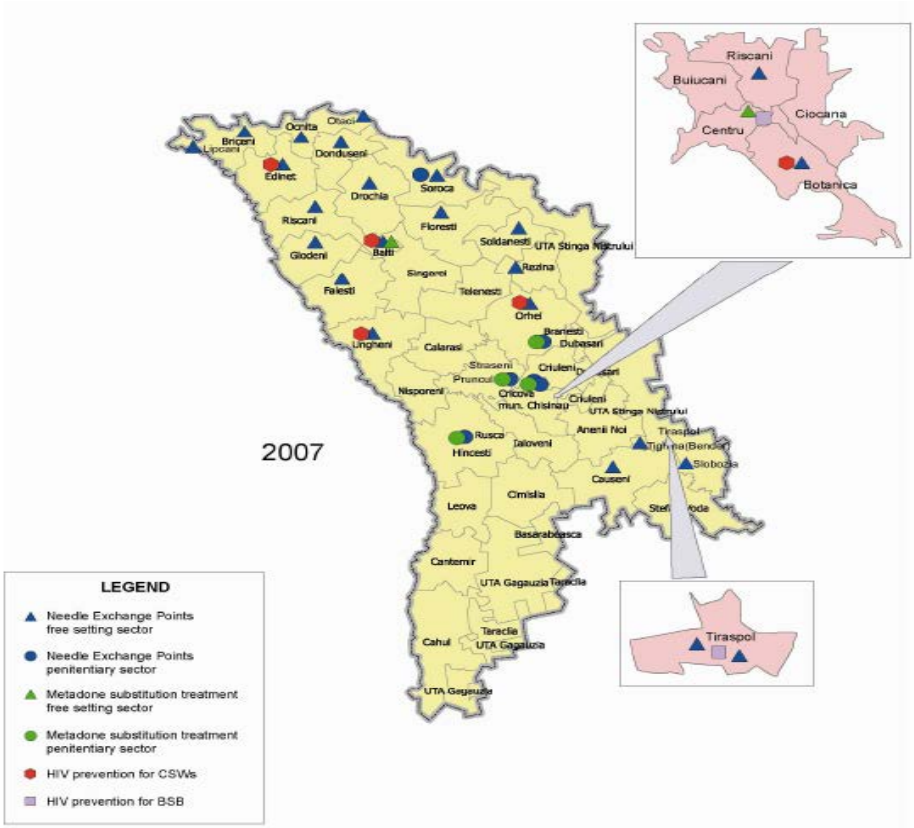
As access to geographic information systems becomes less expensive and more user-friendly, mapping facilities and services becomes easier. The WHO supports a mapping interface called District Health Information Software (DHIS). It can be used at the national and local levels to map services. The advantage of using DHIS is that many health services are already mapped for each country and other useful information is already available in these maps. Countries can build on these maps.

Products

- National and sub-national maps showing service and critical enabler intervention availability

Figure I.3.2 is an example map of existing service delivery sites for at-risk groups in Moldova.

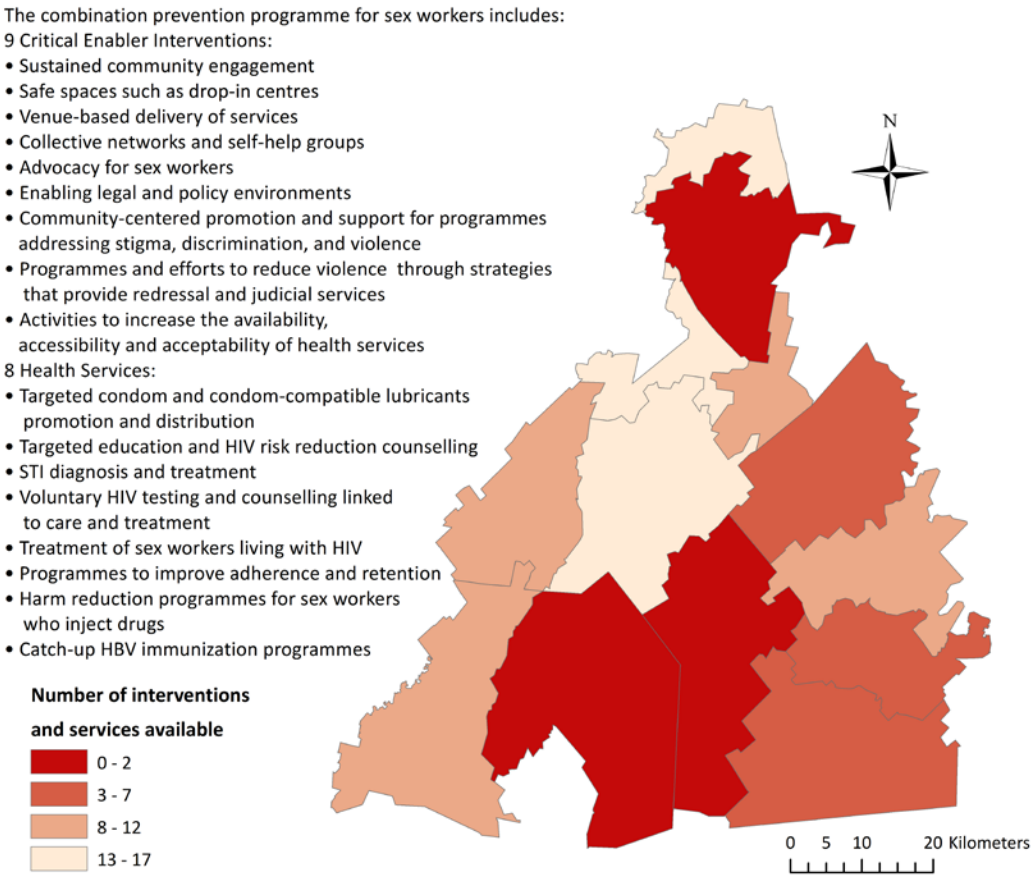
Figure I.3.2 Example of service delivery sites for at-risk groups in Moldova



Source: UNAIDS Republic of Moldova Country Report, 2008

The map on the next page was developed using free mapping software to illustrate how a country could map the availability of each service in its defined programme of health services and critical enabler interventions. The data are illustrative only. The country is fictional. The map shows the number of services offered in each sub-national area from the adopted combination prevention programme.

Figure I.3.3 Combination Prevention Programme of 17 Critical Enabler Interventions and Services for Sex Workers, Fictional Country



Further guidance on service availability mapping:

- WHO Service Availability and Readiness Assessment (SARA)
  http://www.who.int/healthinfo/systems/sara_introduction/en/index.html
- District Health Information Software
  http://dhis2.org/
- WHO Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies
  http://www.who.int/healthinfo/systems/monitoring/en/index.html

	Key Question	Methods	Data Use
3.5	What are the 2-year targets for impact, outcome and coverage indicators in each sub-national area?	Target-setting methods	• Use targets to assess programme performance • See steps 6 and 7

3.5 Target-setting methods

Methods
Target setting is a collaborative process requiring input from a range of stakeholders. This ensures targets are set by using the best available evidence, are agreed upon and understood.
The following are tips for target setting:

- Targets should reflect programme strategies that tailor the response to the epidemic.
- Targets should be set for impact, outcome and coverage indicators at the national level as well as for each sub-national area.
- Targets should be set based on baseline measurements of key indicators selected. Use the indicators described in Tools 22 (pg. 193), 23 (pg. 202), as these are all measurable. If baseline data are not yet available, use the best possible judgment for defining targets.
- Document the source of the data used for baseline estimates. Many of the indicators are based on bio-behavioural surveys. These should be routinely conducted every two years. Other indicators are based on programme data.
- For each indicator, set a two-year target based on what change from the baseline measure can be achieved over the next two years with available funding and resources.
- Targets should also be set for protocol development, programme documentation, M&E system-strengthening, data quality and structural and community interventions.
- Targets should follow be specific, measurable, attainable, relevant and time-bound (SMART).

There is no universal formula for target setting. There is limited evidence to assist in defining minimum levels of coverage or thresholds required for services to achieve a desired impact. Countless factors can affect the extent of HIV risk behaviours and levels of HIV transmission among men who have sex, sex workers and transgender people. These factors influence the minimum level of coverage required in a given context. Useful targets can be set by acknowledging that greater levels of coverage are clearly superior to lower levels. Setting targets for the first time is difficult since there is less experience with understanding what can be accomplished over time. Table I.3.2 describes methods for setting targets.

Table I.3.2 Overview of target-setting methods

Method	Description
International reference method	Determine whether the baseline estimates are "high", "medium" or "low" based on international guidelines on target setting. Set the target at the next level higher than the baseline. For example, if the baseline is "low", set a target of "medium."
10 Years to 80% Method	Identify the baseline indicator. Example: With a baseline of 20%, determine the gap between 20% and a target of 80%. If it takes 10 years to get to 80% from 20%, how far can you get in 2 years? The programme should aim to improve 6% each year or 12% in 2 years. At this rate, the target of 80% will be achieved in 10 years. A target of 100% is rarely reached. Targets of 80% are more feasible. Change does not occur quickly. A ten year plan is reasonable for hard to change behaviours.
X% increase method	For each indicator, increase the target 20% from baseline. For example, if targets should increase proportionally by 20% and the baseline is 40%, then the target is 48% (20% of 40% = 8%).
Absolute increase method	For each indicator, an absolute increase in the baseline of X amount is set as a target. For example, if targets should increase by an absolute 20% and the baseline is 40%, then the target is 60% (40% + 20%= 60%). This type of target setting is often difficult to rationalize.
Expert opinion or consensus	Some behaviours are harder to change than others. These take more time to modify. New programmes may require a longer time to gain the cooperation of the community and yield results. Many factors can affect the achievement of targets. In this method, local people including members of the target population assess these factors and set reasonable targets based on their insight and knowledge.
Trends method	Countries and sub-national areas that have a strong programme and can review trends in indicators and extend the trend line of each indicator (unless the trend is going the wrong direction).
Better than the rest method	If baseline targets are known for several priority prevention areas, set targets higher than any area has achieved. The goal is to improve beyond what the best area has achieved. This method is not appropriate in some settings, but may encourage healthy competition.

The worksheet (Tool 5, pg. 154) included in Appendix 1 provides a template for documenting baseline and follow-up measures of impact, outcome and coverage indicators, the target for each indicator and whether the target was met. Complete the worksheet at the national level and in each-sub-national area. Additional indicators can be included.

Table I.3.3 Examples of targets for impact, outcome and coverage indicators

Indicator type	Indicator	2010 (baseline)	2012		2014	
		% at baseline	% change from baseline	Target %	% change from baseline	Target %
Impact	1.4 HIV prevalence among sex workers	**30**	**-5%**	**28.5**	**-10%**	**27**
Outcome: Biologic Determinants of HIV Transmission	G2. Percentage of female and male sex workers reporting the use of a condom with their most recent client	**60**	**+10%**	**66**	**+20%**	**72**
Outcome: Critical Enabler Interventions to Improve Environment	2.9 Percentage of female and male sex workers who do not report experiencing stigma within last 12 months	**40**	**+20%**	**48**	**+40%**	**56**
Coverage: For each Service in the Package of Services	G5. Percentage of sex workers reached with HIV prevention programmes	**50**	**+20%**	**60**	**+40%**	**70**
	3.8. Percentage of sex workers who have received IEC	**40**	**+20%**	**48**	**+40%**	**56**
	G6. Percentage of eligible sex workers currently receiving antiretroviral therapy	**50**	**+20%**	**60**	**+40%**	**70**
	G9. Percentage of adults (sex workers) and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	**60**	**+10%**	**66**	**+20%**	**72**

* Note that the numbers and percentages in the table are examples for illustrative purposes only

Products

- Targets for impact, outcome and coverage indicators
- These targets will be used for process evaluation, coverage assessment and outcome and impact evaluation

Further information on target setting for programmes:

- A Guide on Indicators for Monitoring and Reporting on the Health Sector Response to HIV/AIDS (2011). http://www.who.int/hiv/data/UA2011_indicator_guide_en.pdf

Further information on HIV treatment as prevention and the Testing and Treatment Cascade:

- Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Engl J Med. 2011 Aug 11;365(6):493-505. Epub 2011 Jul 18. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3200068/
- Gardner EM, McLees MP, Steiner JF, et al. The spectrum of engagement in HIV care and its relevance to test-and-treat strategies for prevention of HIV infection. Clin Infect Dis 2011;52:793-800. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106261/

	Key Question	Methods	Data Use
3.6	Based on the HIV combination prevention programme, what is the national programme impact pathway?	• Meeting to specify Programme Implementation Pathway	• To describe the logic of the programme and identify indicators to monitor

3.6 Putting it All Together: The Programme Impact Pathway

Based on the decisions made for the components of the HIV prevention programme in Step 3 and the measures used to monitor outcomes in Step 2, the programme impact pathway can be specified. See example in the Introduction. The document describing the programme impact pathway should include the estimates of the baseline assessment for each indicator and the targets for each indicator.

E. Summary

This step helped you to develop:

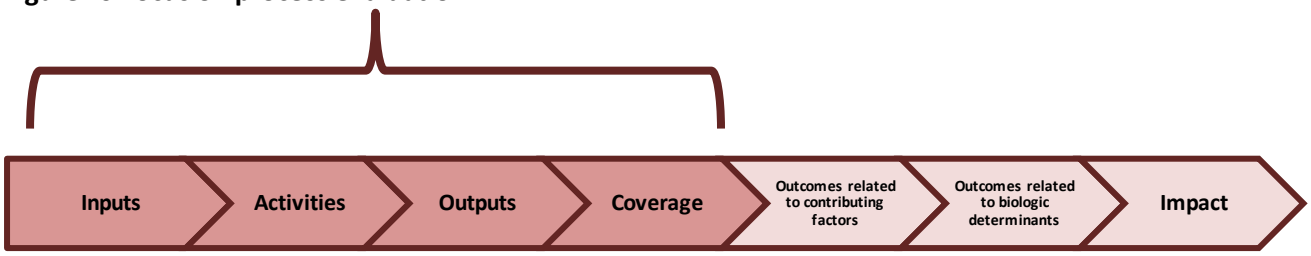
❑	Defined combination prevention programme including health services and enabling environment interventions
❑	Operational definitions of "reached by a service" and critical enabler intervention implemented
❑	Operational definitions of sub-groups for monitoring
❑	Service availability baseline map and targets
❑	Critical enabler interventions at baseline and targets
❑	Coverage, outcome and impact indicator targets
❑	Programme Impact Pathway

Steps 4-6: Overview of input, quality and output monitoring and process evaluation

By the end of Step 3, targets have been set to monitor the national and sub-national response and results. In Steps 4-6, monitoring determines whether the services and interventions developed as part of the planned national response are being implemented on time, with sufficient quality and at the scale required to achieve the set targets. Steps 4-6 collect data to answer the questions: *"What programming/interventions/services are we implementing? Are we doing them right?"*

Input, quality and output monitoring are closely linked to process evaluation. Typically, process evaluation collects *more detailed* information about the way the programme is implemented and received by the target population than can be collected through routine monitoring. Process evaluation can build upon the monitoring data and collect additional information on: access to services, whether the services reach the intended population, how the services are delivered, user satisfaction and perceptions about their needs, and management practices. This detailed information is collected at the service delivery sites for making timely corrections in service provision. Hence, sub-national and national levels will focus on the routine monitoring data to assess implementation progress. Often, the sub-national and national levels will conduct spot-checks and supportive supervision visits to a sample of the service delivery sites. Given this division of labour, Steps 4-6 focus on routine monitoring data relevant to national and sub-national levels.

Figure 10 Focus on process evaluation

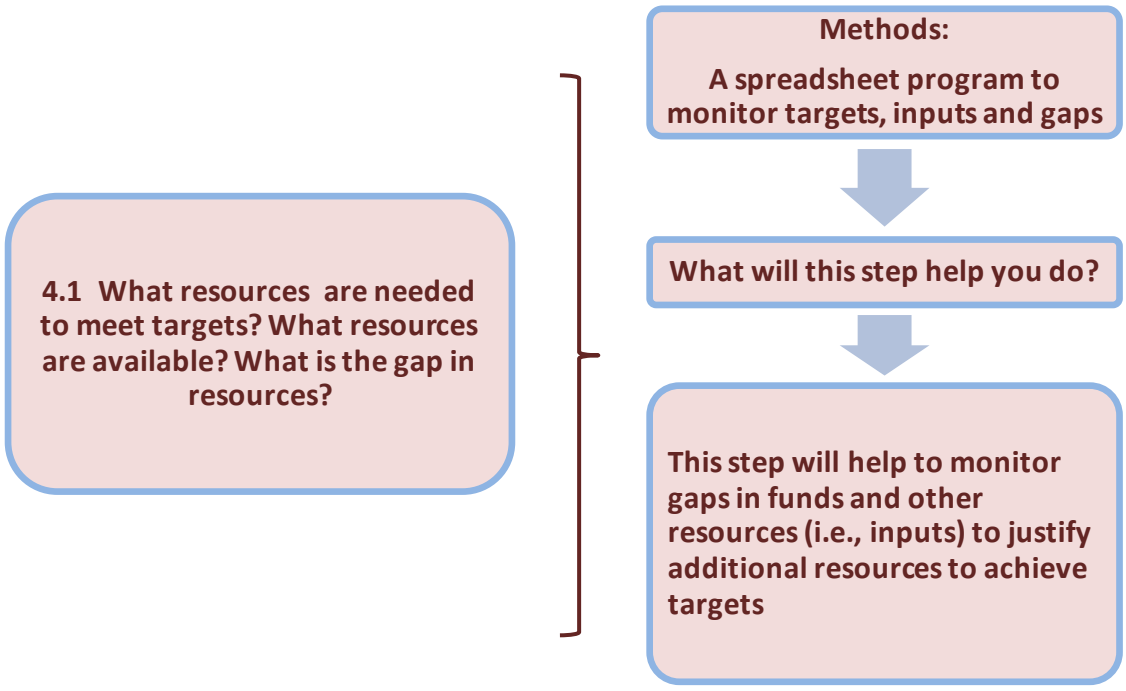


Step 4. Input Monitoring: What resources are needed to reach the sub-national and national targets?

A. Rationale – Why is this step important?

Step 4 identifies whether there are sufficient funds and other resources available to implement the national/sub-national response to the epidemic. Programmes for sex workers, men who have sex with men and transgender people are among the most cost-effective interventions that have been identified. The cost-effectiveness of specific interventions has been evaluated and voluntary counselling and testing, treatment for addictions, school-based interventions, antiretroviral therapy, prevention of mother-to-child transmission, treating STIs, male circumcision, female condom, 100% condom policy and women empowerment/social/peer-based programmes/mass media were all shown to be cost effective. Resources provided to these programmes, however, have been insufficient. In this step, the approach is to determine "what is an appropriate programmatic response?" before assessing whether the resources are adequate. Information from this step can be used to apply for additional funding and other resources. If additional resources are not provided, information collected in this step can be used to decide how to scale-back programme implementation and re-adjust targets.

B. Step 4 Flowchart of Key Questions, Methods and Data Use (Figure I.4.1)



C. How to answer key questions and use data: Overview for Step 4

	Key Question	Methods	Data Use
4.1	What resources are needed to meet targets? What resources are available? What is the gap in resources?	1. Spreadsheet programme to monitor targets, inputs and gaps 2. Other resource needs analysis	Use identified resource gaps to justify additional resources

D. Methods and tools

4.1.1 Spreadsheet tool for financial resource analysis

The spreadsheet in Table I.4.1 shows the financial resource information needed to implement HIV testing and counselling services at the national level and in each sub-national area (see also Tool 7, pg. 158) including the source of the funds. Gaps show whether funds are sufficient for sustained programme implementation. To accurately predict the funds needed to provide different services and interventions conduct a costing exercise using HIV programmatic costing guidelines.

Table I.4.1 Example of monitoring funding for HIV Testing and Counselling Programmes (HTC), in US$

Service	Level	Funds needed	Funds available by source			Funding gap
			Government	Donor 1	Total	
HTC	Sub-national area 1	20,000	10,000	0	10,000	10,000
HTC	Sub-national area 2	80,000	30,000	30,000	60,000	20,000
HTC	**National level**	**100,000**	**100,000**	**0**	**100,000**	**0**

Note: numbers are intended to be illustrative and are not a recommendation

The National AIDS Spending Assessment is a resource tracking matrix that monitors the annual flow of funds as countries move toward universal access to prevention, treatment and care services (UNAIDS 2009).

4.1.2 Other resource needs analysis

The gap in inputs (other than funding) is the difference between those inputs needed and the inputs available. The example in Table I.4.2 can be expanded to track specific categories of human resources, commodities and equipment.

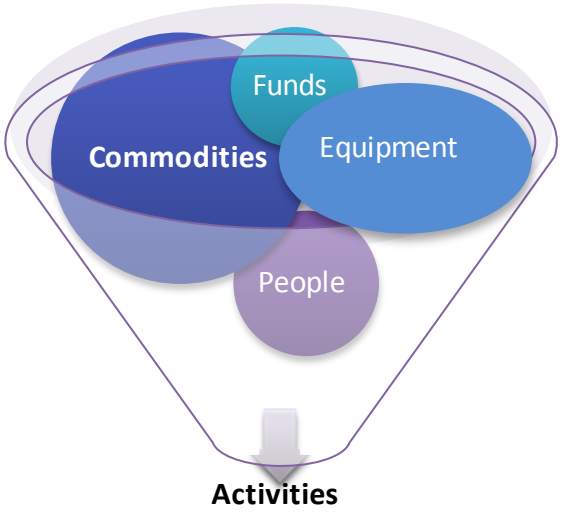


Figure I.4.2 Common inputs for implementation of activities to ensure adequate levels of outputs

Table I.4.2 Example of a spreadsheet to monitor inputs (other than funding) at national level

Inputs	Needed	Available	Gap
Sub-national area 1			
Human resources (staff, volunteers, consultants)	20	10	10
Equipment (computers)	20	20	0
Commodities (condoms)	10,000	5,000	5,000
Best practices materials	10	10	0
Transportation (vehicles)	2	0	2
Sub-national area 2			
Human resources (staff, volunteers, consultants)	40	20	20
Equipment (computers)	10	10	0
Commodities (condoms)	30,000	20,000	10,000
Best practices materials	50	40	10
Transportation (vehicles)	1	0	1
National level			
Human resources (staff, volunteers, consultants)	20	10	10
Equipment (computers)	20	20	0
TOTAL			
Human resources (staff, volunteers, consultants)	80	40	40
Equipment (computers)	50	50	0
Commodities (condoms)	40,000	15,000	15,000
Best practices materials	60	50	10
Transportation (vehicles)	3	0	3

Note: numbers are intended to be illustrative and are not a recommendation

Resource analysis and monitoring data

Table I.4.3 provides an example of the types of data needed to determine resource gaps for implementation of a planned programme (e.g., testing and counselling programme) and to monitor the level of resources throughout programme implementation. Gaps can be used to advocate for additional funding.

Table I.4.3 Example of funding and other resource inputs for a national testing and counselling programme (HTC), in US$

Service	Level	Funds needed	Funds available by source			Funding gap
			Government	Donor 1	Total	
HTC	National	**100,000**	**100,000**	**0**	**100,000**	**0**

Other resource inputs	Needed	Available	Gap
Human resources (staff, volunteers, consultants)	60	40	20
Equipment (computers)	50	50	0
Commodities (condoms)	40,000	25,000	15,000
Best practices materials	60	50	10

Note: numbers are intended to be illustrative and are not a recommendation

Further information on resource planning and allocation:

- UNAIDS (2011). Manual for costing HIV facilities and services. UNAIDS, Geneva. http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/20110523_manual_costing_HIV_facilities_en.pdf
- UNAIDS, ADB (2004). Costing Guidelines for HIV/AIDS Intervention Strategies. UNAIDS, Geneva. http://data.unaids.org/publications/irc-pub06/jc997-costing-guidelines_en.pdf
- UNAIDS (2000). Costing Guidelines for HIV/AIDS Prevention Strategies. UNAIDS, Geneva. http://data.unaids.org/Publications/IRC-pub05/jc412-costguidel_en.pdf
  GOALS MODEL: http://www.futuresinstitute.org/pages/Goals.aspx
- Costing Worksheets: http://www.hivtools.lshtm.ac.uk/models.htm
- National AIDS Spending Assessment (*NASA*) resource *tracking* methodology: http://www.unaids.org/en/KnowledgeCentre/HIVData/Tracking/NASA.asp

Further information on cost effectiveness of programmes:

- Galárraga O, Colchero MA, Wamai RG, Bertozzi SM. HIV prevention cost-effectiveness: a systematic review. BMC Public Health. 2009 Nov 18;9 Suppl 1:S5. Review. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2779507/pdf/1471-2458-9-S1-S5.pdf
- Hogan DR, Baltussen R, Hayashi C, et al. Cost effectiveness analysis of strategies to combat HIV/AIDS in developing countries. BMJ. 2005 Dec 17;331(7530):1431-7. Epub 2005 Nov 10 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1315644/pdf/bmj33101431.pdf
- Schwartländer B, Stover J, Hallett T, et al; Investment Framework Study Group. Towards an improved investment approach for an effective response to HIV/AIDS. Lancet. 2011 Jun 11;377(9782):2031-41. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2811%2960702-2/fulltext#article_upsell

E. Summary

This step will help you to develop:

- ❑ Documentation monitoring inputs
- ❑ Gap analysis

Step 5. Quality Monitoring: What services and critical enabler interventions are currently implemented? With what quality?

A. Rationale – Why is this step important?

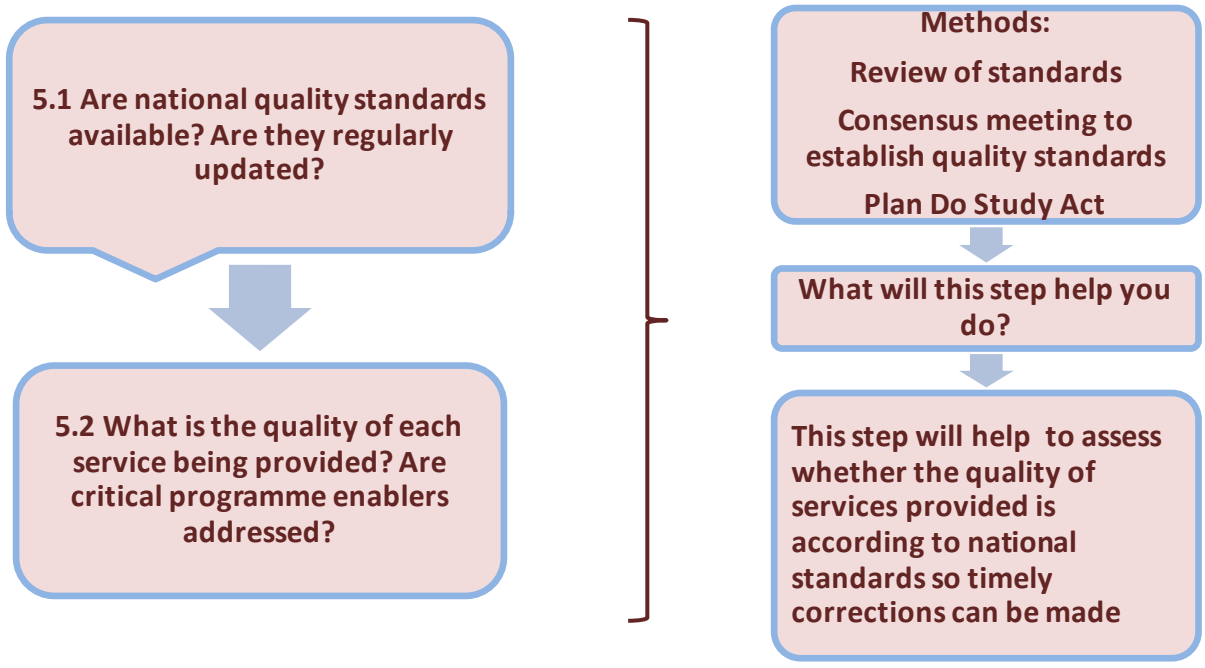
Quality has different meanings for different stakeholders. Some are more concerned about the performance of the system, some about the quality of the care delivered and some about the quality of care received. In reality, all three perspectives are for ensuring quality:

- Performance of the system
- Professional standards
- User satisfaction.

The concepts of quality improvement (QI) apply equally to all levels of the health system. At the national level, the vision for improving quality starts with planning and defining national standards. The sub-national level takes on the national vision, using routine monitoring data to support facility efforts in monitoring, improving and evaluating quality (WHO, 2011).

It is a challenge to implement high quality services according to plan. Stigma among providers has a marked effect on the quality of services and should be monitored and addressed periodically. Programme effectiveness suffers if people do not feel welcome in the service, if the service is not provided in an accessible setting or at a convenient time, if supplies run out or if providers are not well trained. There may be high staff turnover among service delivery providers, requiring frequent training and re-training. This step provides methods for quality improvement.

B. Step 5 Flowchart of Key Questions, Methods and Data Use (Figure I.5.1)



C. How to answer key questions and use data: Overview for Step 5

	Key Question	Methods	Data Use
5.1	Are national quality standards available? Are they regularly updated?	Review standards and if necessary hold a consensus meeting to establish quality standards	Use national quality standards and a time table for quality assessments to ensure service quality is assessed regularly and in a standard manner
5.2	What is the quality of each service being provided? Are critical programme enablers addressed?	1. Quality assessments including community consultations 2. Assessment of critical enabler interventions 3. Plan-Do-Check-Act (PDCA) problem solving	Use quality indicators to identify where programmes need to be improved

D. Methods and tools

5.1 Standards review and consultation

National quality standards provide guidance for implementing high quality services. They also standardize quality assessments to identify any weaknesses that need correction. Universal standards apply to all programmes (see Box I.5.1).

Methods
Create quality standards at the national level with input from service providers and the population served. An accreditation system for service sites and/or a certification for service providers ensures that the quality of services is regularly assessed and approved according to the national quality standards. This also provides transparency to service users.

See also Volume II Step 5.1 for methods and tools for conducting process evaluations and Step 5.2 for methods to conduct quality assessments. These methods and tools are included in Volume II because they are of most relevance to service delivery providers.

Products

- National quality standards for HIV prevention and treatment interventions and services for men who have sex with men, sex workers and transgender individuals
- Documentation of how standards will be measured and frequency of assessment

Box I.5.1 Universal quality standards which should be applied across all services:

Standard for involving the key populations

- The populations identified for targeted services are included in the needs assessment, planning, delivery and evaluation of the services.

Standards for users' rights

- Users are fully informed of the nature and content of the services as well as the risks and benefits to be expected;
- Confidentiality and privacy of users is maintained at all times;
- Adherence to human rights;
- Removal of legal barriers to access services; and
- Access to medical and legal assistance for people who experience sexual coercion or violence.

Standards for providing combination prevention programme of health services and critical enabler interventions to the key population

- Ensure awareness and easy access to all components of the combination prevention programme of health services and critical enabler interventions; and
- Ensure protocols for delivery of each component of combination prevention programme are updated periodically, disseminated to and adhered to by all service providers.

Standards for staffing

- Staff receives regular supervision by senior staff to maintain quality of service delivery; and
- Service providers are trained and sensitized to avoid discriminating against the key populations

Standards for the availability and accessibility of services

- Services are accessible to all potential users irrespective of age, ethnicity, sexual identity, citizenship, religion, employment status, health insurance status, substance use status;
- Services are considered easily accessible with regard to location, transportation options, travelling time and cost;
- Services are equitable and non-discriminatory; and
- Availability of safe virtual and physical spaces (e.g., telephone hotlines and drop-in centres, respectively) for the key population to obtain information and referrals for prevention, treatment and care services.

Information on quality standards:

- UNAIDS Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access.
  http://data.unaids.org/pub/Manual/2008/jc1581_big_card_en.pdf
- ILO Recommendation 200. Recommendation concerning HIV and AIDS and the World of Work.
  http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_142613.pdf
- *New South Wales Occupational Health and Safety Act 2000*
  http://www.legislation.nsw.gov.au/fullhtml/inforce/act+40+2000+FIRST+0+N
- UNFPA Condom programming for HIV prevention. An operations manual for programme managers
  http://www.unfpa.org/upload/lib_pub_file/423_filename_condom_prog2.pdf
- Clinical Facility and Services Assessment Field Guide: Quality Assurance (QA) and Quality Improvement (QI) Quality Assurance Resource Pack for Voluntary Counselling and Testing Service Providers.
  http://www.fhi.org/NR/rdonlyres/eajjgyypire3jwyjxtequ7eb2rrehgliyrvnwl6dksu7vld4pwymiwhlxajifbtvjag3bwiiygzjck/QAQIHealthFacilitiesHV.pdf
- WHO. Improving HIV Testing and Counselling Services: Technical Brief (2011).
  http://www.who.int/hiv/pub/vct/WHO_HIV_11_01/en/index.html
- Peer and Outreach Education for Improving the Sexual Health of Men who have Sex with Men: A Reference Manual for Peer & Outreach Workers, Family Health International (FHI), USAID, PSI Asia, International HIV/AIDS Alliance, UNESCO, Purple Sky Network 2007.
  http://www2.unescobkk.org/elib\publications/2007Peer_Edu/PeerEdu.pdf

Information on the standard for providing testing and counselling services:

- WHO guidelines on antiretroviral therapy for HIV infection in adults and adolescents, 2006.
  http://www.who.int/hiv/pub/guidelines/artadultguidelines.pdf
- WHO guidelines for the management of sexually transmitted infections, 2003.
  http://www.who.int/hiv/pub/sti/en/STIGuidelines2003.pdf

	Key Question	Methods	Data Use
5.2	What is the quality of each service being provided? Are critical programme enablers addressed?	1. Quality assessments including community consultations 2. Plan-Do-Check-Act (PDCA) problem solving	Use quality indicators to identify where programmes need to be improved

5.2.1 Quality assessments

Simply implementing a service does not lead to a high quality service. Many services are well-intentioned but do not meet the needs of key populations.

Methods
The five A's approach to assessing service quality is shown in Box I.5.2. Quality Standards should be disseminated to sub-national levels and to all service providers, and a schedule for regular quality assessments should be established and implemented. A checklist of quality standards for each service as well as for the M&E system is provided in Appendix 1(see Tool 8, pg. 159). The checklist was developed for these *Guidelines* as no easy-to-use checklist already existed.

Programme enabler interventions such as interventions to improve availability, accessibility and acceptability of the services improve performance and thus demand. Programme participation by the key populations, retention improvement through management and incentives, strategic planning, communication infrastructure, information dissemination and service integration or linkage to care are programme enablers that can be monitored through quality assessments. Tool 8 is an extensive quality checklist that touches on many programme enablers.

Products

- Results or report from quality assessments
- Indicators of availability, accessibility and acceptability of services

Box I.5.2 Quality components

<u>For all services</u>: the FIVE A's approach

- ☐ **A**dherence to national standards
- ☐ **A**vailability of service
- ☐ **A**ccessibility of service
- ☐ **A**cceptability of service
- ☐ **A**ttitudes of service delivery providers toward users are positive

5.2.2 Plan-Do-Check-Act problem solving

Methods

Plan-Do-Check-Act is a pragmatic approach that can be used to monitor and improve programme quality. It is a collaborative process where problems are identified, analysed, solutions developed and implemented, then evaluated. If the goal is achieved, the process ends. If the problem is not solved, the process repeats until a solution is found. The approach is easily used by teams and ensures that each person in the team understands how the solution is meant to solve a specific problem.

Quality assessments should include measures of quality of services delivered and the quality of the monitoring and evaluation system including data quality. Box I.5.3 provides examples of service quality measures. Use quality assessments to identify strengths and weaknesses in the service provision. The findings must be followed up in terms of timely implementation of improvements. A sub-standard service is not acceptable. Communicate quality assessment findings to service delivery providers to take action for improvement. One strategy is to bring service delivery providers together to hear the results of different quality assessments and develop an approach to address the weaknesses identified. Subsequently, the service delivery providers can execute the plan and collect new data to assess if the actions taken were adequate. The initial group of providers can then be brought back together to present the results and successful strategies can be shared to be used elsewhere.

Products

- Action plan based on results of quality assessments

Box I.5.3 Indicators for assessing the quality of services for the key population

Number*	Quality indicators
6.1	Percentage and number of safe spots that meet quality standards
6.2	Percentage and number of HIV testing and counselling sites that conduct outreach to the key population
6.3	Percentage of providers testing and treating for STIs who have been trained to provide STI services to the key population
6.4	Percentage of the key population diagnosed with STI who received treatment
6.5	Number of quality audits in which representatives of the key population participated
6.6	Number of services where representatives of the key population participate in service delivery

*This number refers to the numbering of the measures in Tools 22, 23

Further information on quality assessments:

- UNFPA, WHO, PATH (2005). Condom programming for HIV prevention: a manual for service providers. UNFPA, New York, USA. http://www.unfpa.org/upload/lib_pub_file/423_filename_condom_prog2.pdf
- WHO (2010). Handbook for improving HIV testing and counselling services. WHO, Geneva, Switzerland. http://www.who.int/hiv/pub/vct/9789241500463/en/index.html
- WHO. Quality of care. A process for making strategic choices in health systems. Geneva, World Health Organization, 2006. http://www.who.int/management/quality/assurance/QualityCare_B.Def.pdf
- More information about how the problem solving process Plan-Do-Check-Act can be used to improve quality is found here: http://quality.enr.state.nc.us/tools/pdca.htm
- Blueprint for the Provision of Comprehensive Care to Gay Men and Other Men Who Have Sex with Men (MSM) in Latin America and the Caribbean
- http://www2.paho.org/HQ/dmdocuments/2010/Blueprint%20MSM%20Final%20ENGLISH.pdf
- WHO. Training modules for the syndromic management of sexually transmitted infections http://www.who.int/reproductivehealth/publications/rtis/9789241593407index/en/index.html
- Deming, W. (1986). Out of the crisis. Cambridge, Mass.: Massachusetts Institute of Technology, Center for Advanced Engineering Study.

E. Summary

This step helped you to develop:

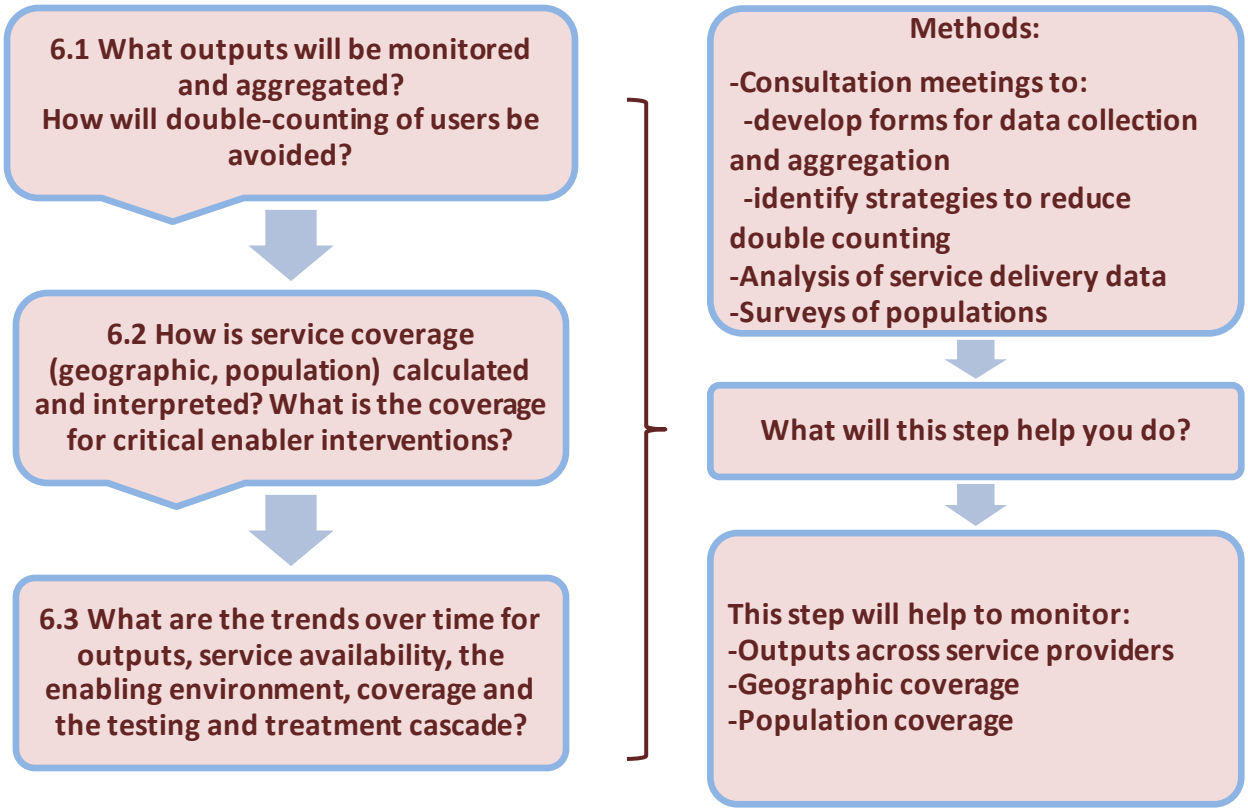
- ❑ National quality standards
- ❑ Periodic assessment of service quality

Step 6. Monitoring Outputs and Programme Coverage: Are output targets achieved? What proportion of men who have sex with men, sex workers and transgender people receive services?

A. Rationale – Why is this step important?

High quality services that only reach a few people in the target population cannot be expected to change the direction of the HIV epidemic in that population. High coverage of the population (i.e., a high proportion of the population has been reached with high quality services) is needed. Monitoring coverage is one of the most important components of monitoring performance.

B. Step 6 Flowchart of Key Questions, Methods and Data Use (Figure I.6.1)



C. How to answer key questions and use data: Overview for Step 6

	Key Question	Methods	Data Use
6.1	What outputs will be monitored and aggregated? How will double-counting of users be avoided?	Consultation meetings to: 1. Define output indicators using requirements for specifying indicators 2. Use unique identifier or other method to avoid double-counting 3. Develop system for data collection and aggregation 4. HIV Testing and Treatment Cascade	Use data to assess whether output targets were met Provide feedback to improve programs
6.2	How is service coverage (geographic, population) calculated and interpreted? What is the coverage for critical enabler interventions?	1. Analysis of service delivery data and results of quality assessments to map geographic coverage 2. Population coverage calculation using service delivery data or/and surveys	Use coverage indicators to identify gaps in coverage that need to be addressed to ensure targets are achieved and needs are met
6.3	What are the trends over time for outputs, service availability, the enabling environment, coverage and the testing and treatment cascade?	Tabulate and graph indicators from Steps 6.1 and 6.2 for each period collected.	Output and coverage indicator data from surveys and service delivery data as collected over time.

D. Methods and tools

6.1.1 Defining useful output indicators

National and sub-national levels focus on selected coverage, outcome and impact indicators. A few output indicators should also be monitored in sub-national areas.

Methods

An output is an immediate result of the service or intervention that can be counted. Monitoring outputs provides evidence that activities occurred. Some illustrative output indicators for the sub-national level include:

1. **Number of people reached with each service or with the complete package of services**
   - Number of men who have sex with men, sex workers, transgender people reached with a HIV prevention service or package of services;

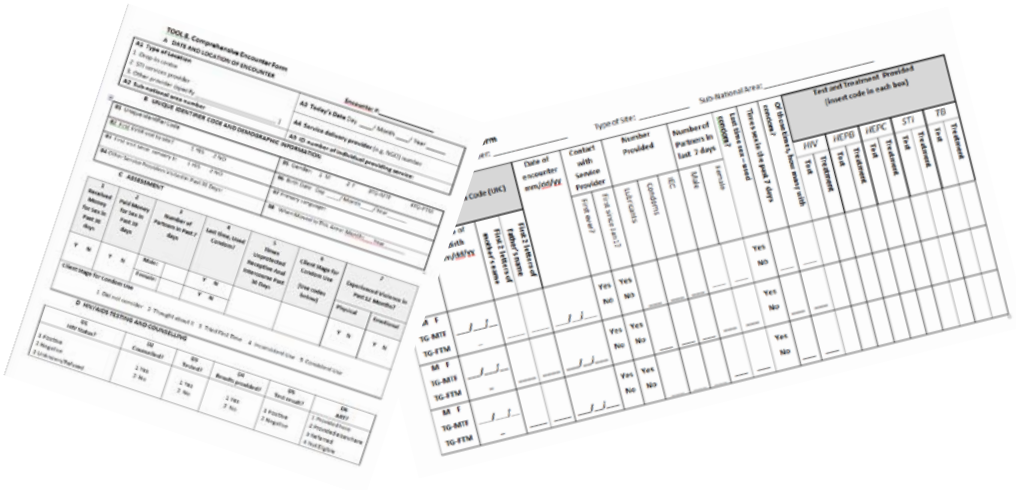
- Number of men who have sex with men, sex workers, transgender people at each stage of the HIV testing and treatment cascade (more information can be found in Section I and later in this step)
    - Number estimated to be infected with HIV
    - Number diagnosed with HIV
    - Number linked to HIV care
    - Number retained in HIV care
    - Number that need ART
    - Number receiving ART
    - Number adherent or with undetectable viral load

2. **Number of services provided**
    - Number of HIV testing and counselling sessions provided
    - Number of community-led services provided
    - Number and percentage of community based organisations that deliver services for prevention, care or treatment and that have a functional referral and feedback system in place
3. **Number of commodities distributed**
    - Number of condoms distributed in the sub-national area;
    - Number of condom-compatible lubricants distributed in the sub-national area;
    - Number and percentage of Service Delivery Points with no stock out of condoms in the past 6 months
4. **Number of people trained**
    - Number of health care delivery providers testing and treating for STIs who have been trained to provide STI services to men who have sex with men, sex workers, transgender people.
    - Number and percentage of community health workers and volunteers currently working with community based organisations who received training or retraining in HIV service delivery according to national guidelines (where such guidelines exist) in the last 12 months
5. **Critical enabler outputs**
    - Number and percentage of community based organisations that have core funding secured for at least 2 years
    - Number and percentage of community based organisations that received technical support for institutional strengthening in the last 12 months

Standardized forms for collecting, reporting and aggregating output indicators are:

- Encounter form
- Referral form
- Aggregation form

Figure I.6.2 Encounter forms



The encounter form is designed to help services collect data on users. Tool 9 (pg. 164) is an example of a comprehensive encounter form that can be filled out for each individual and Tool 10 (pg. 172) is an example of a short encounter form, where one row is completed for each individual. A referral form is used by services to refer users to other services (for example, from a health center to an NGO or to a more specialized level of care). Referral is an activity that services should keep record of and report on aggregate forms to the sub-national or national level. To evaluate the effectiveness of referrals, services should keep track of which referred users followed through with the referral and received the recommended services. Data from the encounter forms can also be aggregated into counts and reported other levels or institutions. If services already use encounter or referral forms, they need not adopt the examples in these guidelines. Also, the more computerized and automated these forms can be, the better. Ideally, an electronic medical record system would collect data similar to that of the example encounter forms and produce tables and graphs of aggregated data. The aggregated data could automatically populate a sub-national or national database included all participating services. Encounter, referral and aggregation forms are fundamental to monitoring outputs and should be standardized at the national level if possible.

Figure I.6.3 Focus on process evaluation

Box I.6.1 lists key requirements for specifying and monitoring output indicators.

Box I.6.1 Requirements for specifying and monitoring output indicators

Requirements for a good output indicator		Clarifications/examples
1	A fully specified indicator reference sheet	This should include the following information: - Indicator definition - Rationale/purpose for the indicator - Numerator - Denominator (if applicable) - How to calculate the indicator - Measurement tool - Method of measurement - Data collection frequency - How to interpret indicator data - Strengths and limitations of the indicator - References to sources for further information about the indicator
2	A well-defined activity that can be counted	For example: number of persons reached with a service, package of services, number of commodities (condoms or condom-compatible lubricants) distributed and/or number of people trained
3	The time period during which the activity occurred	For example: • Number of condoms distributed each calendar month • Number of persons reached by a testing and counselling programme in the past month
4	For output indicators that measure the number of people "reached with a service", an operational definition of what it means to be "reached"	For example: Number of persons who received at least one free condom with instructions on its use
5	For output indicators that measure the number of people "reached with a package of services", an operational definition of the content of the package	Number of persons reached by HIV combination prevention package including: - HIV testing and counselling; - Condom distribution programme; and - Community engagement.
6	The output indicator meets the *Indicator Standards*	The indicator meets each of the following standards: Standard 1. Is needed and useful Standard 2. Has technical merit Standard 3. Is fully defined Standard 4. It is feasible to collect and analyse data Standard 5. Has been field tested or used in practise Each Standard is further defined by specific criteria (see *UNAIDS Indicator Standards, 2010*) and a 6th standard exists for the set of indicators: The set is coherent and balanced overall
7	A standardized data collection form to collect the indicator data	An encounter form for recording which services were provided to the user (see Tools 9, 10)

8	A baseline measurement of the indicator and a realistic target	For example: • Baseline in 2010: 60,000 condoms distributed to 500 users (10 condoms per users per month) • Target for 2011: 72,000 condoms to be distributed to 600 users (with same assumption of 10 condoms per users per month)

6.1.2 Identifying a strategy to avoid double-counting

"Double-counting" of persons reached arises when service delivery providers know the number of contacts with the target population but not how many *unique* individuals they have contacted. Knowing the number of unique individuals is a more accurate measure of coverage. The number of contacts is vague measure because the contacts include individuals reached multiple times and unique individuals.

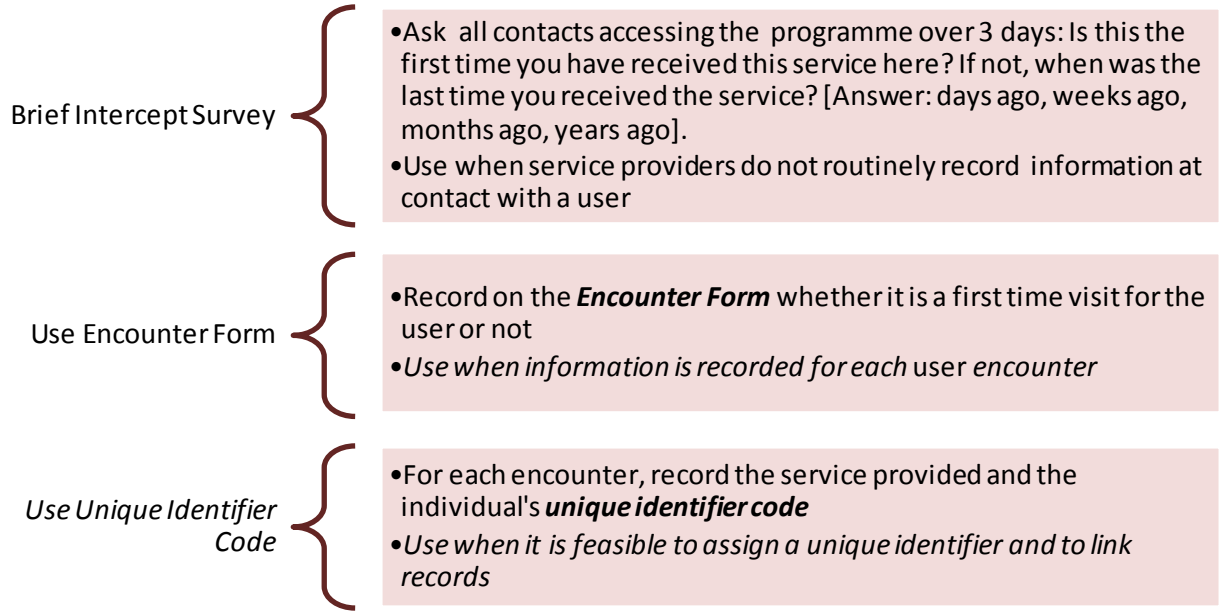
Methods

Depending on the capacity of the data monitoring system, each service delivery provider must determine what method will be used to avoid double-counting of individuals or translate the number of contacts with the population into the number of unique individuals reached with a service. Figure I.6.3 summarizes three different strategies be used when reporting on the number of people (individual users) reached with a service.

Service delivery providers who adopt the use of a unique identifier code (UIC) for users will be able to track a user's participation in the programme. They will also be able to track the services each user receives and if referrals to services have been followed-up. Unique identifier codes can provide accurate information about the number of users reached with services and the number of contacts with each user. In order to use a UIC, a service delivery provider must develop a data storage system that protects the privacy of users. Community consultations should be held in developing a UIC so that concerns from the community can be addressed and a UIC developed that will not harm people. Government-issued identification numbers or other identifiers that are easily linked to the user are not appropriate. An example of a "safe" unique identifier code developed by Population Services International is a 7-digit code composed of:

- First two letters of mother's first name
- First two letters of father's first name
- Gender (single letter M/F or number)
- Year of birth (last two digits)

Figure I.6.4 Strategies to avoid double-counting persons reached and a brief description of method



6.1.3 Developing a system to measure, report and aggregate output indicators

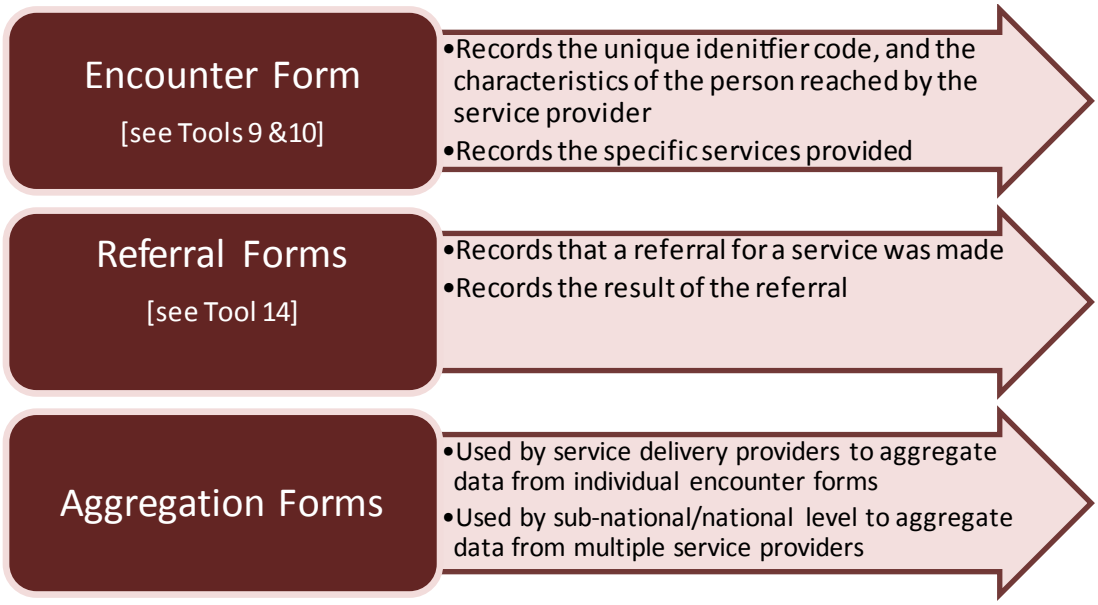
One of the key questions in monitoring and evaluation is "What are we doing?" Part of the answer is provided by an output monitoring system that assesses whether outputs meet targets. It can accurately count people reached by interventions, service providers trained and commodities distributed. It uses a standardized protocol, data collection and reporting forms to ensure consistent indicator measurements across service providers. Sub-national and national level programme managers can aggregate output data from the service delivery level to assess whether targets are being reached, and take actions to increase service outputs where needed.

Output trend analysis can improve services at the sub-national level. This method can be used to monitor the outputs from the different sub-national areas at the national level. Trend analyses compare actual outputs to output targets over time.

Methods

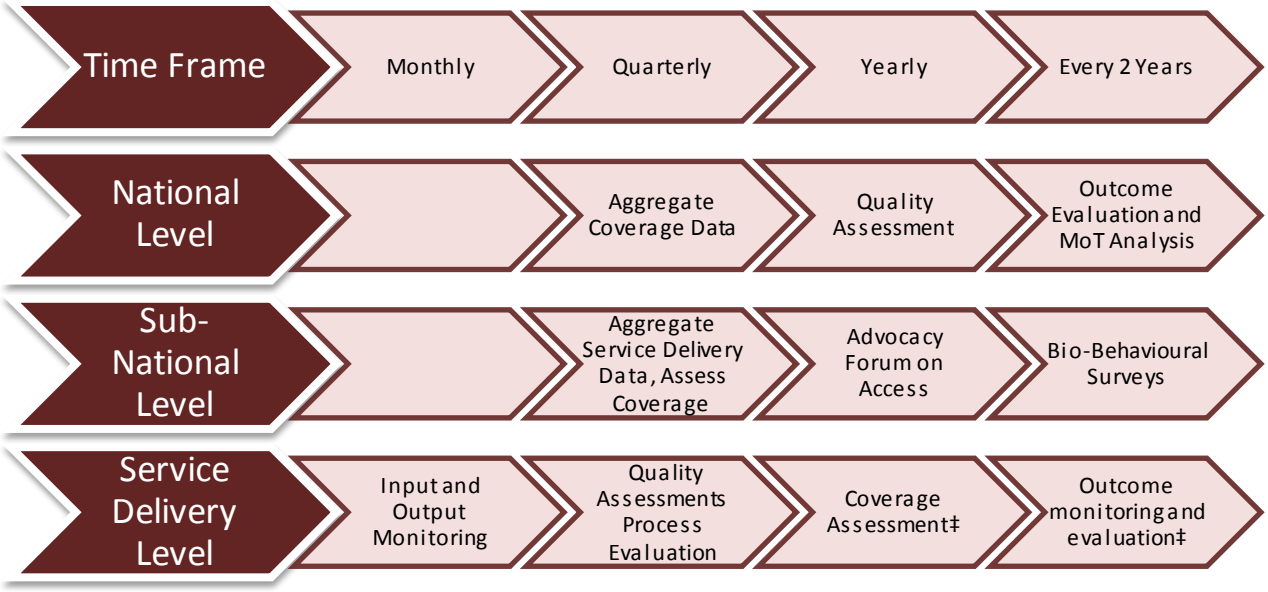
Define services and determine the appropriate strategy for addressing double counting. Next, develop forms for recording whether a service has been provided and distribute the forms to all service providers for standardized data collection and reporting across sub-national areas. The most important forms are shown in Figure I.6.4 and examples are included in Appendix 1 (see Tool 9, pg. 164; Tool 10, pg. 172; and Tool 14, pg. 183).

Figure I.6.5 Types of forms to measure output indicators



The graphics below from Section K. Coordination among National, Sub-National and Service-Delivery Levels illustrates one strategy for the schedule of data collection (based on Figure 9 on page 28).

Figure I.6.6 Sample Data Collection and Reporting Schedule



‡ If capacity exists

Service providers who routinely collect data on outputs and create a system to tally these numbers monthly benefit and share these data with the sub-national level every month or quarter. At the sub-national level or national level, information from all service providers in each of the sub-national areas

should be aggregated monthly. There are specific tools available that help with aggregating data at the sub-national level (by hand or using software). For example, the UNAIDS Country Response Information System allows service delivery providers to enter data directly online. Further software development will provide automatic calculation of indicator values as well as graphs to look at trends in the data over time. If service providers do not have access to computers or the internet, aggregate data by hand and enter it onto hard copies of spreadsheets/forms. Share these hard copies with the sub-national or national level. At that stage, they can be entered into a computerized system.

After receiving output data from service delivery providers, the sub-national area level should provide timely feedback to the service delivery level. Discuss under-performance with relevant stakeholders and perhaps with the target population. These discussions can help reveal reasons for under-performance, look for potential solutions and determine steps to take.

Products

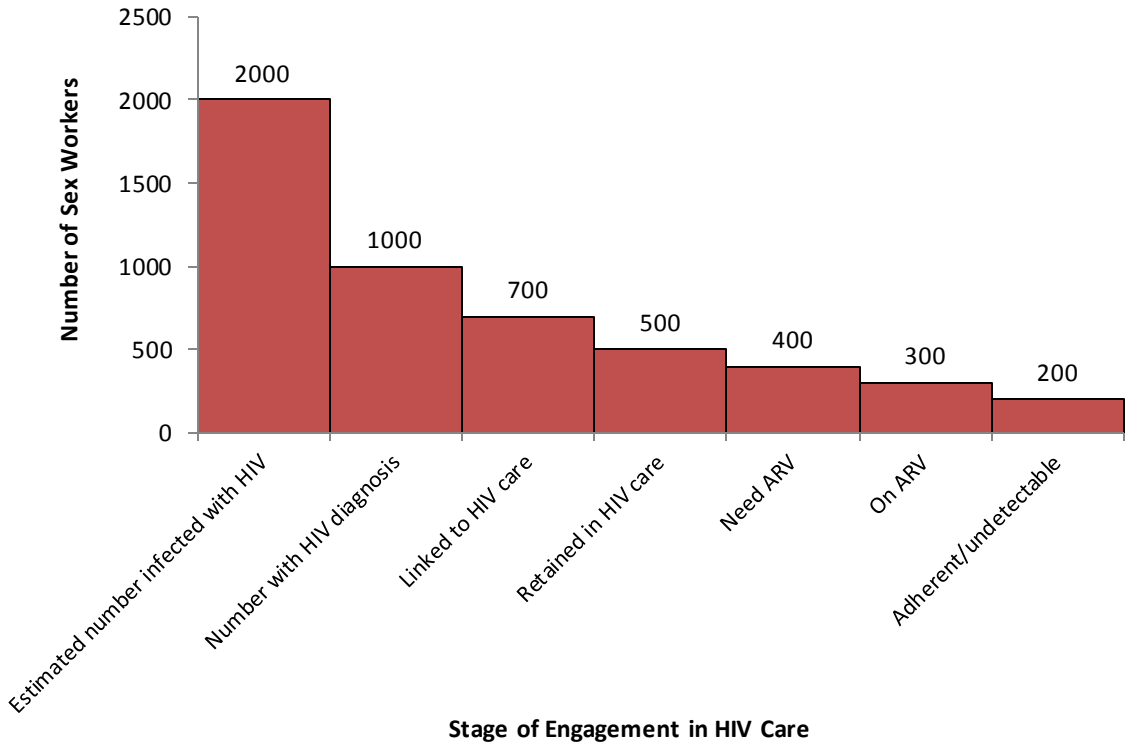
- Aggregate data on services provided and people reached by each service

6.1.4 HIV Testing and Treatment Cascade

The HIV Testing and Treatment Cascade (first mentioned in Section I, pg. 29) is an excellent tool for monitoring gaps in HIV testing and treatment coverage and for setting targets. The Testing and Treatment Cascade can help identify the gaps in awareness of HIV status, linkage to care for those diagnosed, retention in care, initiation of ART and adherence to ART for key populations. Use baseline data to set targets for indicators from the testing and treatment cascade and monitor them as part of process monitoring in this Step. See Section I for more information on the HIV Testing and Treatment Cascade.

In this Step use available data to construct the national or sub-national HIV Testing and Treatment Cascade. Figure I.6.7 is an example Cascade that can be used as model.

Figure I.6.7 Illustrative HIV testing and treatment cascade in a country with 10,000 sex workers and estimated HIV prevalence of 20%



Adapted from Gardner EM, McLees MP, Steiner JF, Del Rio C, Burman WJ. The spectrum of engagement in HIV care and its relevance to test-and-treat strategies for prevention of HIV infection. Clin Infect Dis 2011;52:793-800.

	Key Question	Methods	Data Use
6.2	How is service coverage (geographic, population) calculated and interpreted? What is the coverage for critical enabler interventions?	1. Analysis of service delivery data and results of quality assessments to map geographic coverage 2. Population coverage calculation using service delivery data or/and surveys	Use coverage indicators to identify gaps in coverage that need to be addressed to ensure targets are achieved and needs are met

Box I.6.2 Definitions of coverage indicators

Type of coverage		Definition	Example
Geographic coverage		Geographic coverage measures whether each service, intervention and programme is available in each sub-national area. This helps to identify areas where there is a services gap.	Whether HIV testing and counselling is available in each sub-national area
Population level coverage	**of a particular service or intervention**	Population level coverage for a particular service measures the proportion of the population of sex workers, men who have sex with men, and transgender people "reached" by the specified service. [see section 6.1 for defining what is meant by "reached with service"]	For an HIV testing and counselling service: percentage of people that were tested for HIV in the past 12 months, know the results of the test and were referred to the relevant clinical services in HIV-positive cases
	of a package of services	Population level coverage for a package of services measures the proportion of the population "reached" with the specified package of services. [see section 6.1 for defining what is meant by "reached with package of services"]	For package of services: Percentage of the key population who have received the entire package of services in a specific period (3, 6 or 12 months) (for example, received condoms and condom-compatible lubricants, IEC materials, and tested for HIV)

6.2.1 Geographic coverage calculation using service delivery data and quality assessments

Coverage indicators measure the proportion of sub-national areas where a service is available or the proportion of the target population reached with each service, intervention or a combination prevention programme. Achieving adequate service coverage is an intermediate, necessary step toward achieving behaviour change and reducing new HIV infections. Table I.6.2 provides an example of mapping the geographic distribution of services and interventions (see also Step 3) to calculate geographic coverage of services.

Table I.6.1 Example of geographic coverage calculation

Geographic availability of services and interventions	Area 1		Area 2		National	
	No service/ intervention	Service / intervention meeting quality standards available	No service/ intervention	Service / intervention meeting quality standards available	Number of areas providing service/ intervention	% of areas providing service / intervention (coverage)
Services for members of key population						
HIV testing and counselling	0	1	0	0	1	50%
Antiretroviral therapy (ART)	0	1	0	0	1	50%
Targeted education and risk counselling for men who have sex with men, sex workers and transgender people	0	1	0	0	1	50%
Prevention and treatment of sexually transmitted infections (STIs)	0	1	0	0	1	50%
Condom promotion programme for men who have sex with men, sex workers and transgender people	0	1	0	1	2	100%
Vaccination, diagnosis and treatment of viral hepatitis	0	1	0	0	1	50%
Harm reduction programmes for key populations that also inject drugs	0	1	0	0	1	50%
Critical enabler interventions						
Addressing legal barriers	0	1	0	1	2	100%
Training and sensitization of service providers	0	1	0	0	1	50%
Community mobilization	0	1	0	0	1	50%
Establishment of safe spots	0	1	0	0	1	50%
Intervention package	0	1	0	0	1	50%

Note: numbers are intended to be illustrative and are not a recommendation

6.2.2 Population coverage calculation using service delivery data or/and surveys

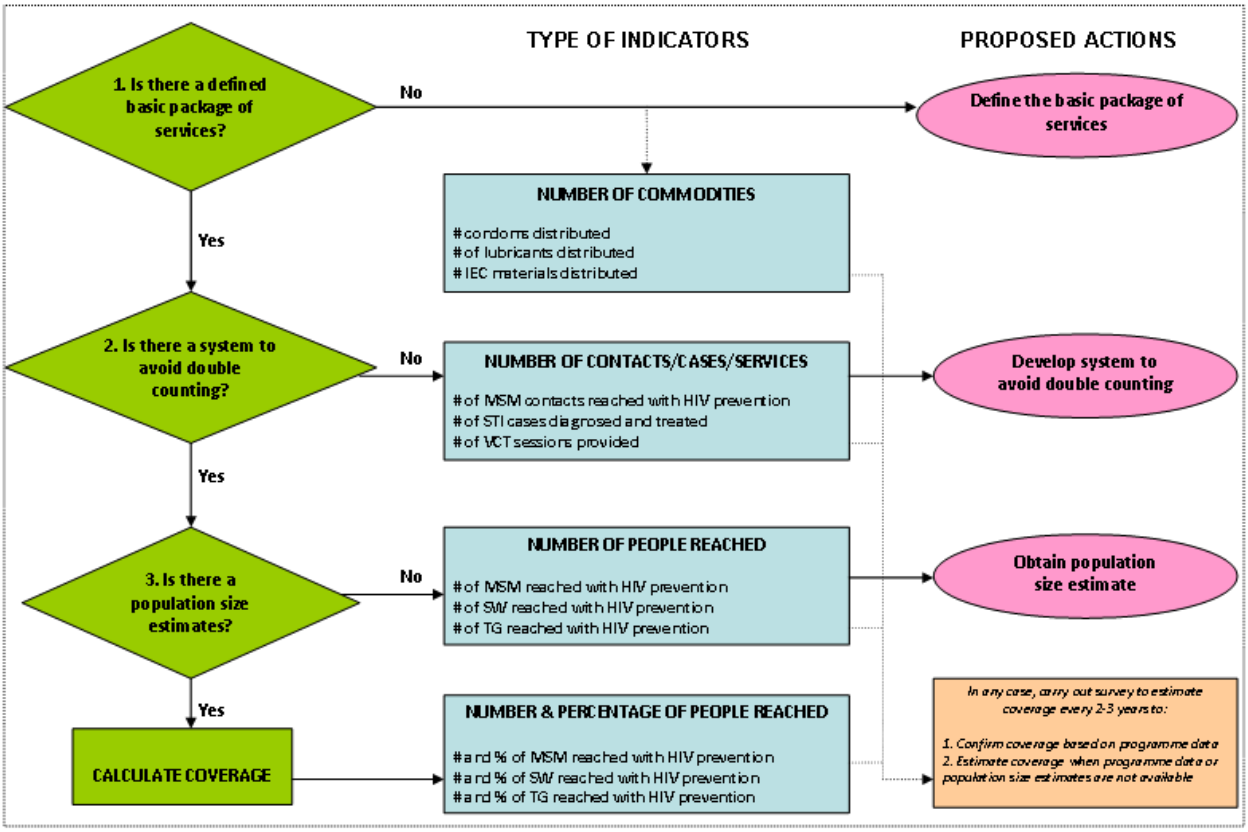
How does coverage information help to improve performance?

Coverage is a critical indicator of programme implementation. Programmes that are effective at a small scale will not achieve significant prevention objectives unless they are implemented at a scale that reaches the majority of the target population. Figure I.6.11 measures coverage indicators obtained from survey data. All measures are included in Tools 22 (pg. 193), 23 (pg. 202).

Achieving high coverage is an intermediate step in promoting healthy sexual behaviours among the population being served. The programme is unlikely to result in behavioural changes if it is not reaching its target audience. Monitor coverage to ensure that the specific coverage targets are being reached. To address coverage, sub-national and national levels need to ensure that all components of a programme

of recommended services and interventions are available and accessible. This implies responding to discriminatory laws, changing public attitudes, doing advocacy to provide services to members of the key population and addressing other social determinants. When all components of the programme are available in the areas in need, efforts need to be made to provide better individual coverage. This depends on available resources, how the community including members of the key population receives the services, the quality of services provided, sensitization of service providers, etc. Timely feedback from the national to sub-national level and from sub-national level to service providers may result in better coverage. Where under-performance is identified, it is necessary to examine data more carefully, analyse the reasons for the situation, identify potential solutions, determine steps to take and implement changes needed to improve performance. Figure I.6.11 provides an example of the decision tree on population coverage calculation.

Figure I.6.8 Decision tree on calculating population coverage



Methods

It is possible to estimate population coverage of services or the complete package of services by either:

(a**) using service delivery data (if population size information is available)**; or

(b) **using population-based survey data** - conducting a representative survey of the target population that includes questions on the use of each service. Figure I.6.9 provides an example of using encounter form or survey to estimate population coverage.

Figure I.6.9 Using service delivery data (encounter forms) or a population-based survey to calculate service coverage

Percentage of men who have sex with men reached with STI screening in the past year

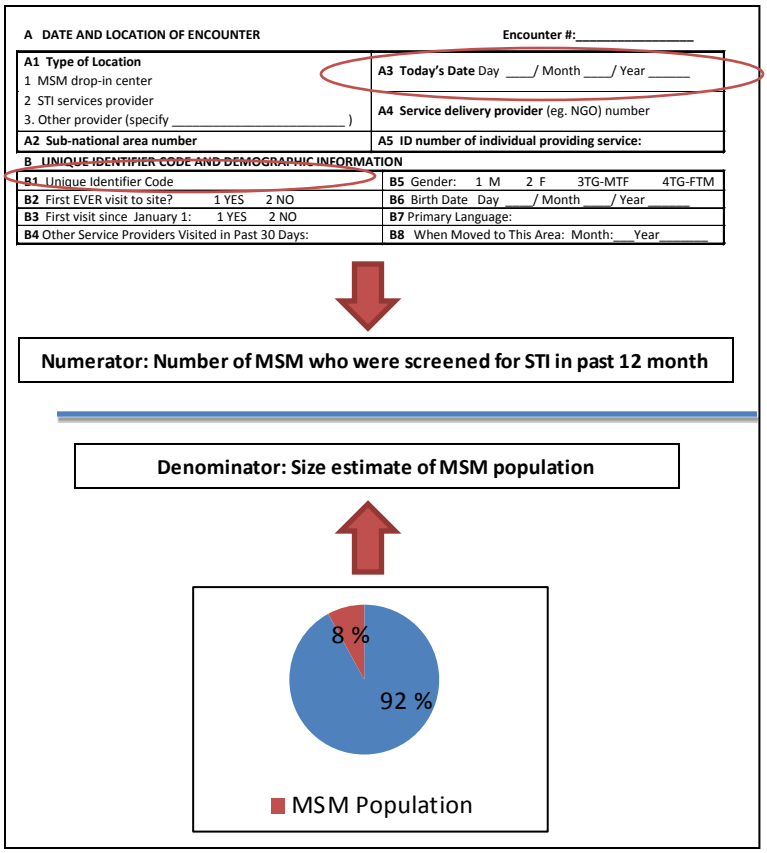
OR

Service Delivery Level – From Encounter Form

Use data from 'Comprehensive Encounter Form' in Tool 9 (pg. 159) or 'Short Encounter Form' in Tool 10 (pg. 164)

National and Sub-National Level – From Survey

Use data from 'Sample Survey Questions' in the Tool 11 (pg.175)



Sample survey questions for coverage indicators

Item No.	Item	Response Code	Rationale	Measure No.
31	Do you know where you can go if you wish to receive an HIV test?	Yes No	Used to determine percentage who know where to get HIV test	3.7
32	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7
33	If yes, have you been tested in the past 12 months?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7
34	If yes, please do not tell me but, did you receive your results?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7
35	Have you been screened for STI in the past 12 months?	Yes No	Used to determine percentage of men who have sex screened for STIs	3.6
36	Have you been diagnosed with STI in the past 12 months?	Yes No	Used to determine percentage of men who have sex diagnosed with STI	6.4
37	If Yes, have you received treatment for STI in the past 12 months?	Yes No	To assess quality	6.4

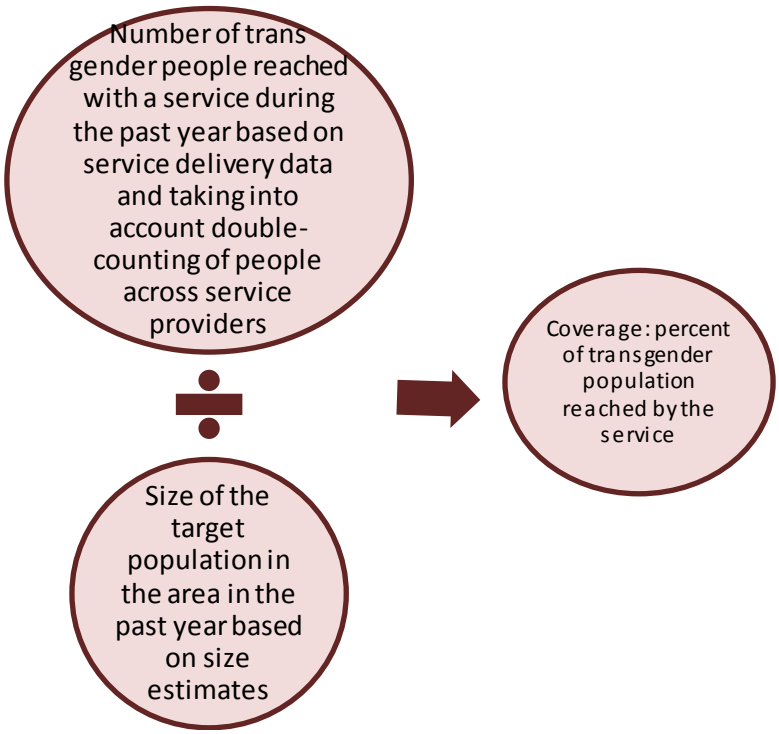
(a) Calculating coverage from service delivery data if size estimates are available

Calculating population coverage for a service, intervention or entire package of services using service delivery data requires:

1. A clear definition of the service or complete package of services (see Step 3.1, pg. 68)
2. A strategy to avoid double-counting users (see Step 6.1.2, pg. 103)
3. Estimates of the size of the target population (see Step 1.1.2, pg. 46)

Figure 1.6.10 shows how to calculate coverage from service delivery data and a size estimate of the population.

Figure I.6.10 Method to calculate coverage based on service delivery data



For example: Six service delivery providers in a sub-national area estimated that they each reached 200 people over the past year. Data from User Encounter Forms suggest that 50 of the 200 individuals at each service site also visit another service site in the same sub-national area. The estimated size of the population in the sub-national area is 3,000. Coverage is $\frac{\left[6 * 150 + \left(6 * \frac{50}{2}\right)\right]}{3{,}000} = \frac{1{,}050}{3{,}000} = 34\%$.

(b) Calculating coverage from survey data

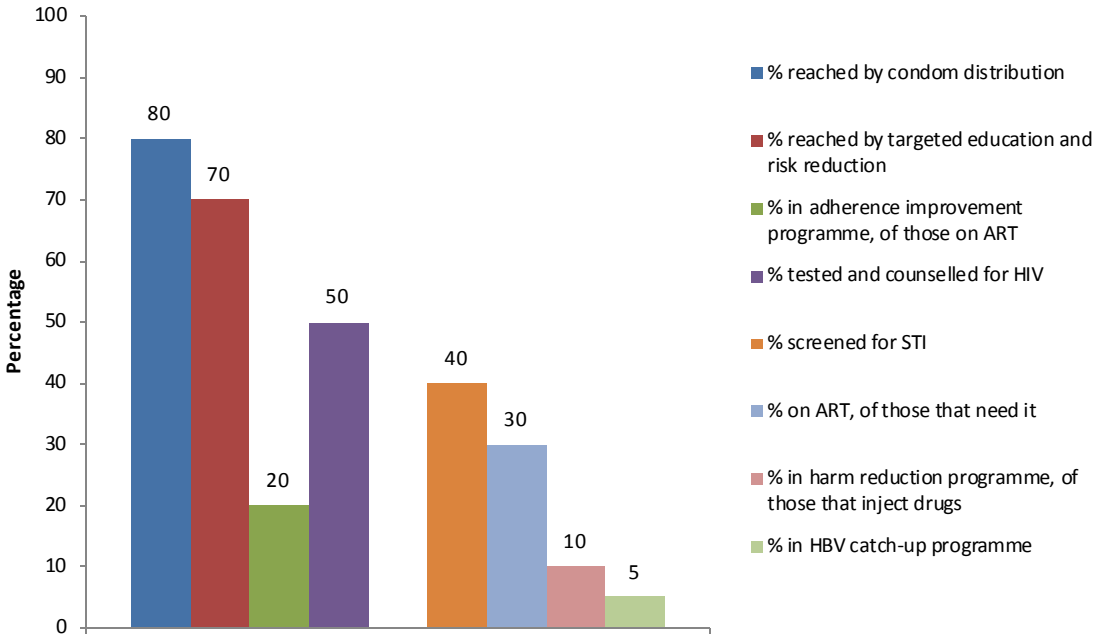
See Step 2.1 for a description of how to conduct bio-behavioural surveys of a representative sample from the target population. Surveys should include questions to assess coverage. Examples of questions to assess coverage are included in Tool 11 (pg. 175).

Products

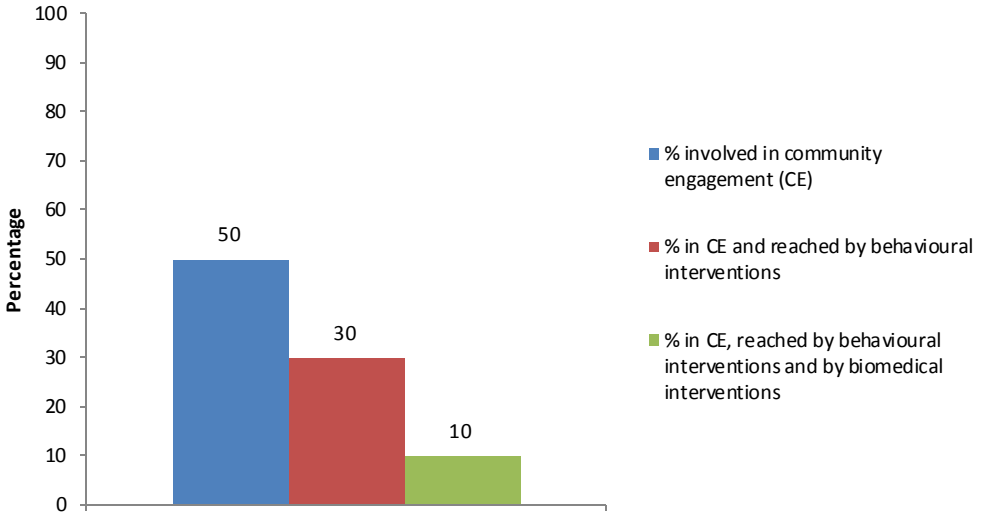
Annual coverage data for each service

Figure I.6.11 Examples of coverage indicators

a) Population coverage indicators for specific HIV prevention services



b) Population coverage indicators for components of the HIV programme



Further information:

More information on collecting, analysing and using monitoring data, entering data into the global spreadsheet, doing basic analysis and creating charts:

- FHI. Monitoring HIV/AIDS Programmes: Participant Guide (2004). http://www.fhi.org/NR/rdonlyres/epjwoqeky4zmoliungcpnchi3v3cnrqxgsdiaione2ct3jeyguv3nsnqrbjt5oha7oihw5huwo7e3k/ParticipantCoreModule2.pdf
- UNAIDS. AIDSinfo. http://www.unaids.org/en/dataanalysis/tools/aidsinfo/
- UNAIDS. Monitoring and evaluation Guidance and Tools. http://www.unaids.org/en/dataanalysis/tools/monitoringandevaluationguidanceandtools/
- Information on the UNAIDS Country Response Information System: http://www.cris3.org/
- Unique Identifier Code , USAID-funded Drug Demand Reduction Program (DDRP) in Uzbekistan, Tajikistan and the Fergana Valley Region of Kyrgyzstan http://centralasia.usaid.gov/datafiles/_upload/DDRP_Unique_Identifier_Code.pdf

	Key Question	Methods	Data Use
6.3	What are the trends over time for outputs, service availability, the enabling environment, coverage?	Tabulate and graph indicators from Steps 6.1 and 6.2 for each period collected.	Output and coverage indicator data from surveys and service delivery data as collected over time.

6.3 Monitoring outputs, service availability, the enabling environment and coverage over time

Once output, service availability, enabling environment and coverage indicators have been defined (Steps 3 and 6) methods to collect and aggregate the necessary data have been established (Step 6), a reporting schedule has been set (Step6) and data has been reported at least twice start to examine trends in the indicators over time. The more time points from which data is available, the more information can be gleaned from a trend analysis. It's also important to interpret trends with caution as extraneous factors (changes with regard to the reporting services, seasonal factors, funding factors) could have an effect on the data reported.

Keep records of each indicator as reported or collected over time and present the data in a report. The report of output trends, service availability trends, enabling environment trends and coverage trends will complement each other and help explain the course of the epidemic and products from Steps 7 and 8 (outcome and impact monitoring and evaluations).

Table I.6.1 contains the number of condoms distributed and the target number for the four service providers in a sub-national area. Figure I.6.12 shows the number distributed each month as compared to the three-month target.

Table I.6.1 Condoms: Number distributed, targets and percentage of target achieved (in thousands)

	Month											
Provider	**January**			**February**			**March**			**Total**		
	# Distributed	Target	% of Target	# Distributed	Target	% of Target	# Distributed	Target	% of Target	# Distributed	Target	% of Target
Provider A	10	30	33	20	30	67	30	30	100	60	90	67
Provider B	40	80	50	50	80	63	40	80	50	130	240	54
Provider C	20	30	67	30	30	100	30	30	100	80	90	89
Provider D	5	60	8	10	60	17	5	60	8	20	180	11
Total	75	200	38	110	200	55	105	200	53	290	600	48

Note: numbers are intended to be illustrative and are not a recommendation

Figure I.6.12 Graphical Representation of Condom Distribution – Single Service Provider

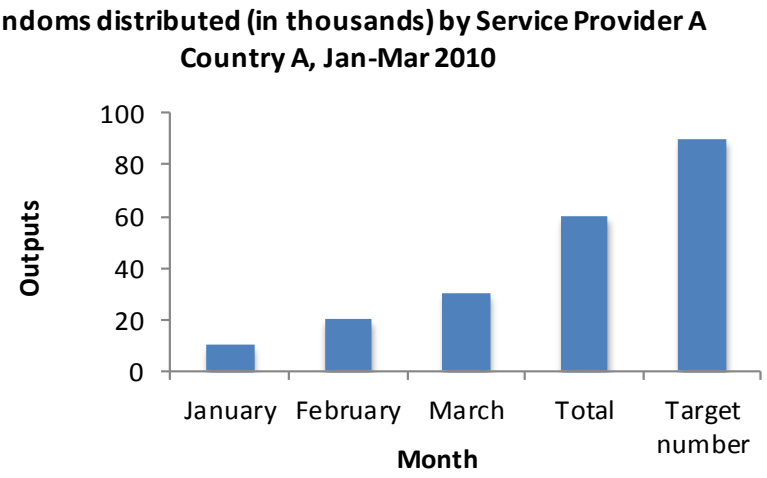
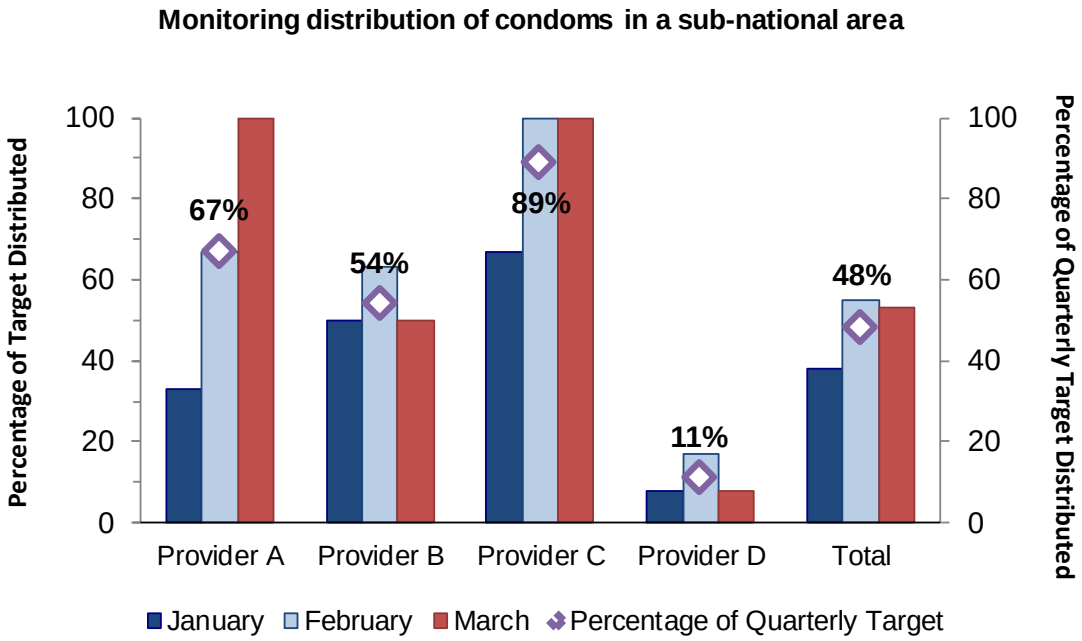


Figure I.6.13 presents data from four providers in the sub-national area. The graph clearly indicates that Provider D is not reaching its targets.

Figure I.6.13 Graphical Representation of Condom Distribution – Multiple Service Providers



E. Summary

This step helped you to develop:

❑	Indicator reference sheet for each indicator
❑	Identified strategy to avoid double-counting
❑	Output Trends Report
❑	Service availability trend report and map
❑	Enabling Environment Checklist: Trends
❑	Coverage Trends Report
❑	HIV Testing and Treatment Cascade

Step 7. Outcome Monitoring and Evaluation: Are there changes in biologic determinants of HIV transmission? Are there changes in the enabling environment? Are these changes due to the programme?

A. Rationale – Why is this step important?

Targets were set in Step 3 using a community-led process for two types of outcome indicators: outcomes directly related to risk of HIV transmission and outcomes related to critical enablers of transmission. Step 7 provides methods to monitor whether these outcomes changed and to evaluate whether the changes were due to the HIV prevention programme.

Outcome monitoring tracks trends in outcome indicators and assesses whether outcome targets were achieved. Social enabler outcomes and programme enabler outcomes should be monitored.

Outcome evaluation asks: Are the changes in outcomes caused by the programme? Outcome evaluation requires a comparison group. Outcomes among the intervention group are compared to outcomes among groups without the intervention.

Most outcome evaluations focus on biologic determinant outcomes. Below are examples of questions that outcome monitoring and evaluation seeks to answer:

For monitoring direct biologic determinant outcomes:

- Is condom use among men who have sex with men increasing? Or decreasing?
- Has the prevalence of syphilis decreased among sex workers?
- Among transgender individuals eligible for ant-retroviral treatment, what proportion are on treatment and have undetectable levels of virus?
- What proportion of transgender who inject drugs are sharing injecting equipment?
- What proportion of men who have sex with men have engaged in unprotected receptive anal sex in the past 4 weeks?

For evaluating direct biologic determinant outcomes:

- Was the measured increase in condom use due to the programme?
- Was the decline in syphilis due to the programme?

For monitoring social enabler outcomes:

- Is the proportion of men who have sex with men who experienced violence, discrimination, human rights violations in the past 12 months decreasing?
- What proportion of sex workers are members of a sex worker led organization seeking to address policy and legal reform related to sex work?

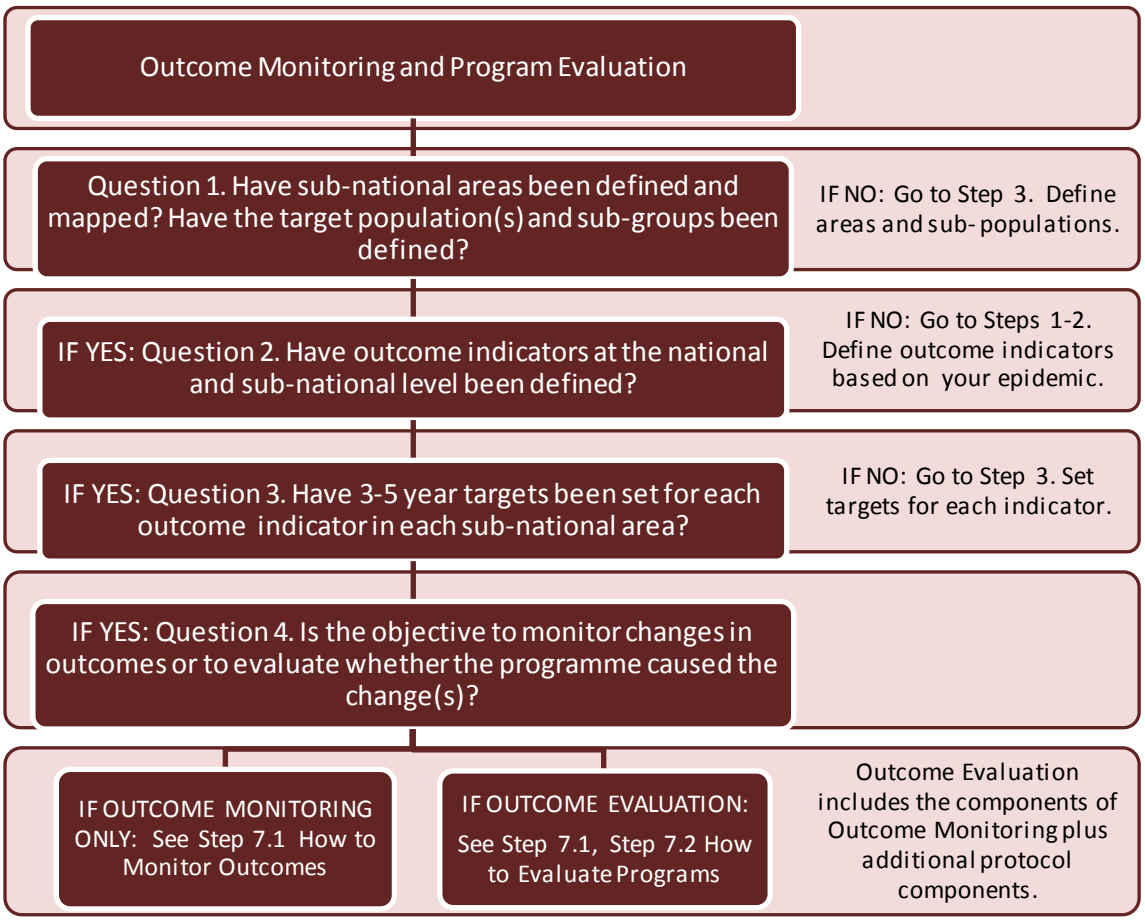
For monitoring programme enabler outcomes:

- What proportion of men who have sex with men report problems accessing condoms?
- What proportion of sex workers report experiencing discrimination when accessing services?

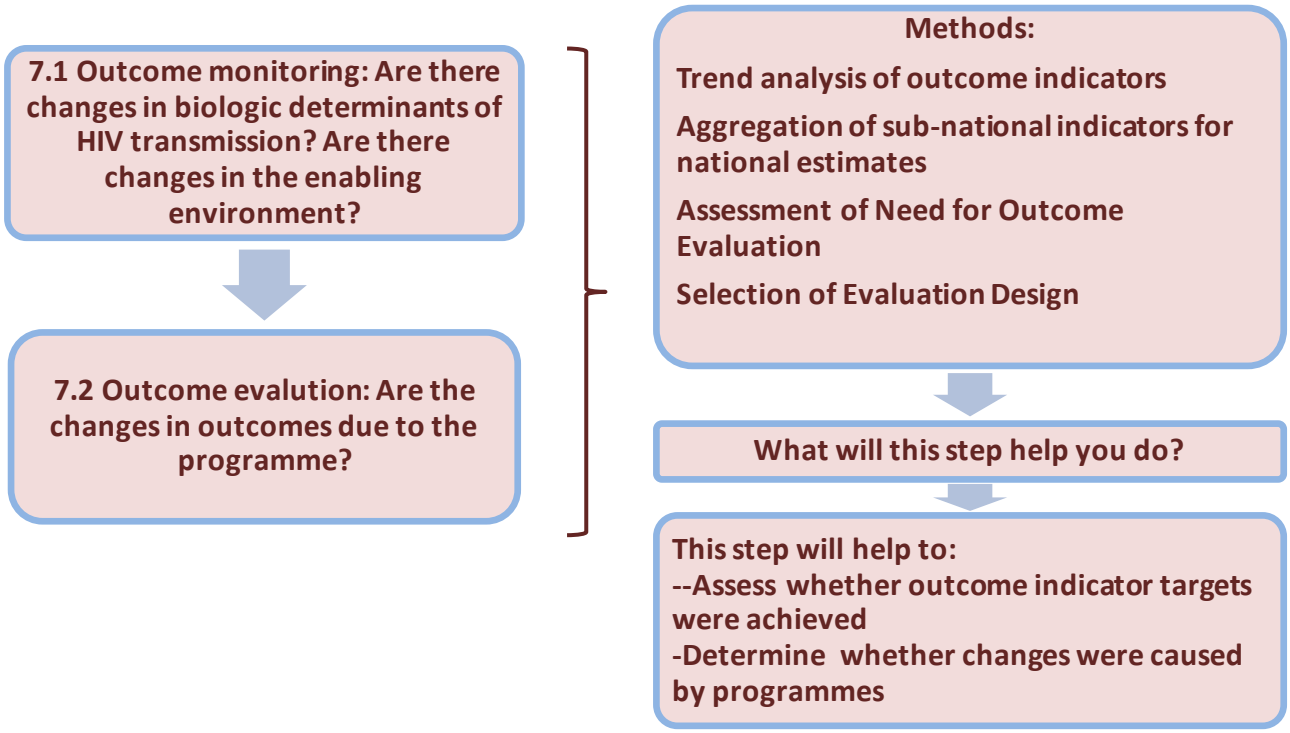
- What proportion of transgender persons who begin ART are still receiving ART a year later?

The figure below can be used to assess readiness for outcome monitoring and evaluation.

Figure I.7.1 Questions to Assess Readiness for Outcome Monitoring and Evaluation



B. Step 7 Flowchart of Key Questions, Methods and Data Use (Figure I.7.2)



C. How to answer key questions and use data: Overview for Step 7

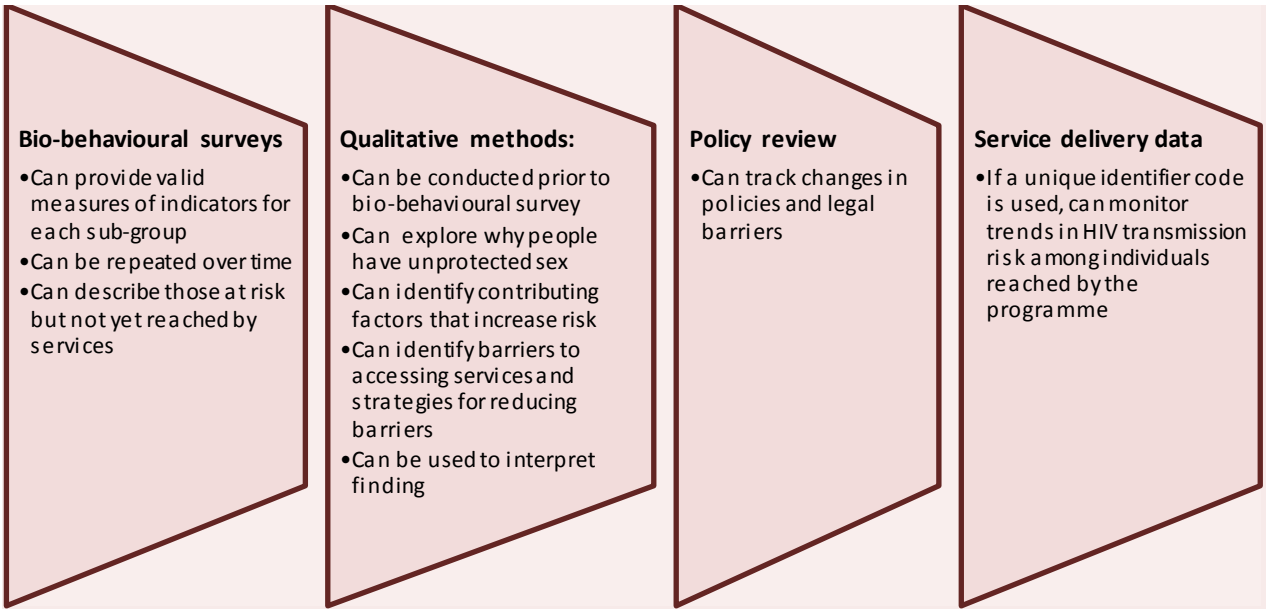
	Key Question	Methods	Data Use
7.1	Outcome Monitoring: Are there changes in biologic determinants of HIV transmission? Are there changes in the enabling environment?	1. Trend analysis and interpretation of outcome indicators 2. Aggregation methods for national indicators	Use trends in critical enabler outcomes to assess whether the environment is improving. Use trends in biologic determinant outcomes to assess whether the risk of HIV transmission is decreasing.
7.2	Outcome Evaluation: Are the changes in outcomes due to the programme?	1. Assessment of need for an outcome evaluation 2. Evaluation study designs 3. Modelling	Use evaluation results to identify strengths and weaknesses of a programme.

D. Methods and tools

7.1.1 Trend analysis and interpretation of outcome indicators using bio-behavioural survey data, policy reviews, and qualitative data.

Most of the outcomes related to the biologic determinants of HIV transmission (e.g., percentage using a condom at last sex) and many of the critical enablers (e.g., percentage of sex workers who reported no episodes of violence, discrimination, human rights violations in the past 12 months) are measured by bio-behavioural surveys. However, some outcomes-- such as the legality of homosexuality, are best assessed by other methods (See Figure 1.7.3). In addition, service delivery data and qualitative data can help interpret trends identified from survey data. (see Box I.7.1) Outcome indicators are usually collected every two years. See Tools 22 (pg. 193) and 23 (pg. 202) for a list of outcome measures related to biologic determinants and contributing factors of HIV transmission.

Figure I.7.3 Overview of methods for collecting outcome data and understanding trends

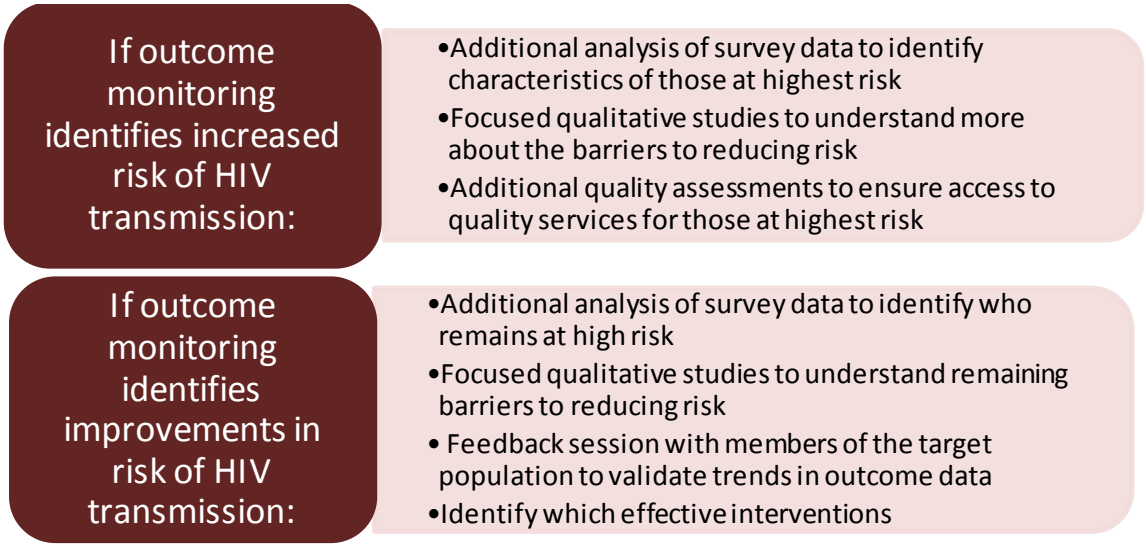


Box I.7.1 Example of using qualitative methods to interpret trends

A bio-behavioural survey showed that unsafe sex among sex workers is increasing. This finding sparked further analysis of the survey data: "What are the characteristics of those most likely to practice unsafe sex? Were they reached by a condom distribution programme in the past month?" In addition to survey data analysis, in-depth interviews and focus groups with sex workers revealed that police were keeping sex workers away from safe spots. The analysis also revealed that services were not available during the times when sex workers could access them.. These findings using qualitative methods led to meetings with the police and an assessment of the quality of services. Removing barriers to service access is anticipated to result in a reduction in unsafe sex which can be assessed during the next survey.

An analysis of trends in the outcome indicators should lead to further action. Figure I.7.4 illustrates what further investigations should be undertaken based on the results from outcome monitoring.

Figure I.7.4 Actions based on observed trends in outcome data



Methods

Repeated cross-sectional bio-behavioural surveys can assess coverage, monitor outcomes and estimate impact. Bio-behavioural surveys include HIV sero-status testing and may include testing for other sexually transmitted infections. See Tool 11 (pg. 175) for a list of illustrative survey questions and the corresponding indicators that can be obtained to assess coverage, outcomes, and impact. A sound protocol is the basis for collecting good quality data, good data management and appropriate data analysis and use. Box I.7.2 provides an outline of a protocol for a behavioural survey study. Standardized protocols for surveys can be found on the UNAIDS website. Good data management is crucial for high data quality when conducting a bio-behavioural survey. (See Box I.7.3)

Box I.7.2 Protocol outline for bio-behavioural survey

A. Background
- Prevalence of HIV infection among the key population over time
- Involvement of stakeholders in planning the study
- Engagement and meaningful participation of key populations

B. Study population
- Map of the sub-national area(s) including contextual barriers / facilitators for risk
- Eligibility criteria and description of sub-groups including size

C. Outcomes to be monitored : Definitions and justification

D. Exposure to HIV prevention services (required for outcome evaluation)
- Description of the package of services
- Operational definition of coverage for each service
- Rationale for survey questions selected to assess exposure to each service
- Coverage indicators defined

E. Brief description of the study design (e.g., repeated cross-sectional survey of sex workers)
- Frequency of repeating the survey (e.g., every 3 years)
- Description of any efforts to use-the data to estimate the size of the population

F. Sample size needed to track changes in outcome indicators for each sub-group

G. Sampling strategy and rationale

I. Interviewing mode

J. Use of incentive payments

K. Methods for cost-effectiveness analysis (useful for outcome evaluation)

L. Data collection and informed consent forms

M. Description of testing procedures

L. Training materials

M. Results of Piloting and Pre-Testing Survey

N. Data entry, data confidentiality and data storage

O. Data analysis
- Socio-demographic characteristics: trends over time
- Outcomes related to HIV transmission risk: trends over time
- Outcomes related to contributing factors: trends over time
- For each sub-national area and for national level

P. Data interpretation, data dissemination and use

Q. Adherence to protection of human subjects procedures
- Prepare protocol for referral of HIV positive participants to care
- Follow guidelines for reducing stigma and discrimination

R. Budget and time schedule

Box I.7.3 Tips for good study design practices and data management

Monitoring and evaluation are ongoing. Surveys will be repeated and data compared across years and across areas. This has implications for study protocols, data collection methods and data management. Protocols and methods should not change substantially from year to year so that indicator data remain comparable over time.

Maintain data from each measurement period in a specific dataset. The M&E representative in each area should have access to the data from their area. In addition, prepare and document a national data set that includes all comparable data across areas and over time. The national dataset facilitates comparative analyses.

When combining (same information for different subjects) or merging (different information on the same subjects) data sets from different areas and different years, pay attention to the following tips:

- For each record in the data set, include information about the date of the study, the area, whether the survey took place when the area was a designated intervention or comparison area, the gender and age of the respondents and each sub-group of respondents.
- Use consistent variable names across all measurement periods
- Document in a table the comparable survey question numbers (e.g., the variable "Gender" is Q2 in 1998, Q5 in 2000, etc.)

Choosing a sampling method is one of the key decisions in conducting a bio-behavioural survey. Box I.7.4 lists some of the available sampling methods with their benefits and drawbacks.

Quantitative surveys should consider including qualitative component. Qualitative methods can include focus groups and/or in-depth interviews. Qualitative methods can help in the phrasing of questions on the survey, identify barriers to services that could be monitored in a survey, and provide insights into findings from the survey. Qualitative investigations can also describe the context of sex work or the quality of life among transgender people. Qualitative methods often provide details and understanding not obtained by quantitative surveys. Analysis of focus group surveys and in-depth interviews usually includes the identification of themes described by participants and the identification of specific quotes that illustrate key points.

Box I.7.4 Sampling methods

Type of sampling	Key features including recruitment	Advantages	Disadvantages
Respondent driven sampling	Initial seeds recruit additional respondents who then recruit additional respondents. People recruit two to four additional respondents and get an incentive payment for their own interview and the interview of their contacts.	Recruitment uses coupons that keep track of recruitment chains and allow calculation of selection probabilities, qualifying the method as a probability method.	If people do not recruit randomly from their network, the sample may be biased.
Time Location Sampling (venue based)	Venues where sub-groups can be reached are listed with hours of operation identified. A random sample of venues and hours is selected.	Selection probabilities can be calculated so this qualifies as a probability method. The method is replicable and verifiable.	People at venues may not want to be interviewed. Some people may not visit venues.
Targeted/quota sampling	Ethnographic assessment identifies sub-groups. Quotas are recruited by convenience from each group.	Obtains a diverse sample	Final sample is not a probability sample
Snowball sampling/ chain referral	Initial recruits or "seeds" recruit participants who then recruit additional participants until the sample target is reached	Historically useful in obtaining access to hidden populations	The chain may not reach a representative sample of the population
Facility sampling	People visiting the facility are selected for interview (for example, the first 200 patients in a month)	Convenient Reaches people who use facilities	People using services are not representative of the population
Internet survey	People are recruited from internet sites of interest to men who have sex with men, sex workers and transgender people.	Participation is voluntary.	The sample is a convenience sample and will be biased.

Source: Adapted from several sources including A Monitoring and Evaluation Framework for Concentrated Epidemics and Vulnerable Populations, David Wilson, Global HIV/AIDS Monitoring Team (GAMET).
UNAIDS, WHO. Surveillance among most at risk populations for HIV (2010).

7.1.2 How to aggregate sub-national indicators to obtain national outcome indicators

The most important trends to monitor are those within each sub-national area. However, it is often useful to have a national estimate that takes into account the indicator values from all of the sub-national areas. Table I.7.1 presents a method to calculate national estimates using population size estimate from each sub-national area. In this example, the indicator ranges from 20% to 80% locally. The national estimate is 50%.

Table I.7.1 Calculating a national estimate from outcome measurements in sub-national areas

Area	Size of MSM population	Outcome Indicator (% using a condom at last sex)	Number of individuals meeting indicator
Sub-national area 1	15,000	**40%**	6,000
Sub-national area 2	5,000	**20%**	1,000
Sub-national area 3	30,000	**50%**	15,000
All other areas	10,000	**80%**	8,000
National estimate	**60,000**	30,000/60,000 = **50%**	**30,000**

Note: numbers are intended to be illustrative and are not a recommendation

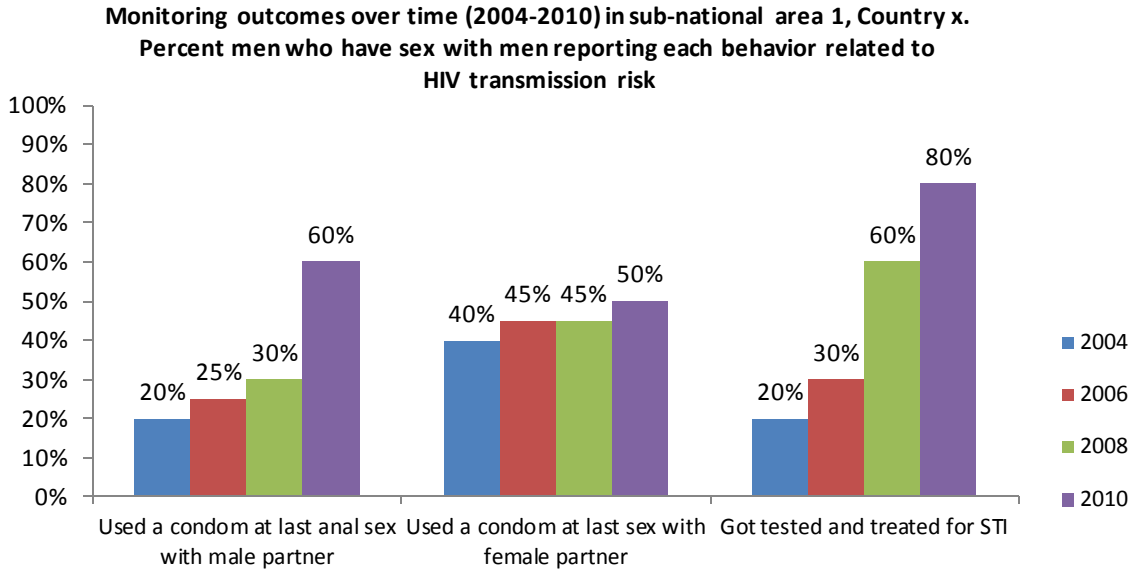
Products

- Protocol for bio-behavioural survey
- Data from bio-behavioural survey and estimates of outcome indicators, including graphs, for selected outcomes measured over time
- Note that some impact, coverage and quality indicators that are also obtained from the bio-behavioural survey.

Graphs can help interpret trends. Here are some tips for making easy to understand graphs of trends in outcome indicators and an example of an informative graph:

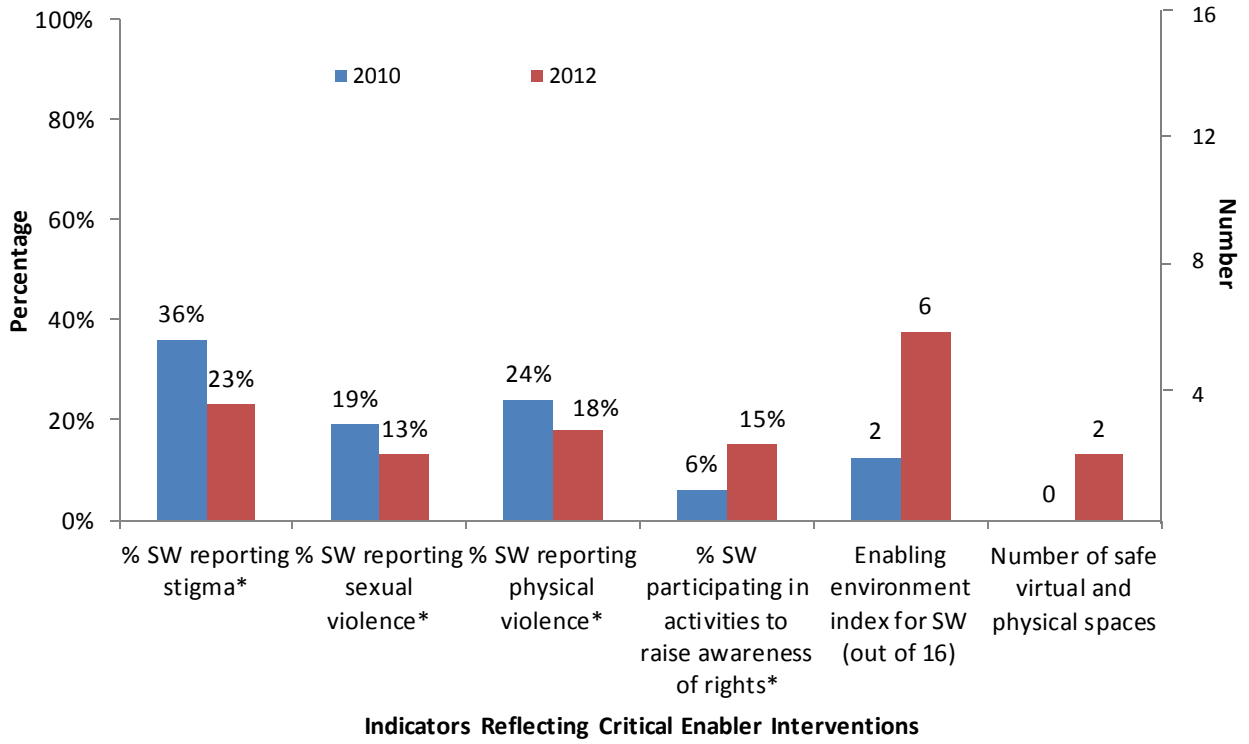
- Graphs should be simple, two dimensional and have titles that explain the graph without additional text
- Titles and legends should include how sample recruited, where study conducted and size of sample

Figure I.7.5 Example of outcome monitoring among men who have sex with men



Note: The data were collected through cross-sectional surveys of 500 men who have sex with men recruited by respondent driven sampling.

Figure I.7.6 Outcome Monitoring of Critical Enablers for Sex Workers



*in last 12 months

Further information on choosing a sampling method:

- U.S. Department of Health and Human Services, Center for Disease Control, GAP Surveillance Team. Most-at-risk populations sampling strategies and design tool. HSS-CDC, 2009. http://www.theagencyfordesign.com/clients/cdc/marps/
- See UNAIDS (2010-11). Guidelines for Second Generation HIV Surveillance.. Geneva, UNAIDS. UPDATE http://whqlibdoc.who.int/hq/2000/WHO_CDS_CSR_EDC_2000.5.pdf
- A Monitoring and Evaluation Framework for Concentrated Epidemics and Vulnerable Populations, David Wilson, Global HIV/AIDS Monitoring Team (GAMET). http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1192413140459/4281804-1231540815570/5730961-1236714389204/DavidWilsonMandE.pdf
- UNAIDS, WHO. Guidelines for surveillance among most at risk populations for HIV (2010). http://www.unaids.org/en/media/unaids/contentassets/restore/20110518_Surveillance_among_most_at_risk.pdf

	Key Question	Methods	Data Use
7.2	Outcome Evaluation: Are the changes in outcomes due to the programme?	1. Assessment of need for an outcome evaluation 2. Evaluation study designs 3. Modelling	Use evaluation results to identify strengths and weaknesses of a programme.

7.2.1 Assessment of need for an outcome evaluation

An outcome evaluation assesses whether changes in outcomes were caused by a specific programme. Sometimes evaluations are undertaken when they are not necessary. For example, new studies are not needed to assess whether condoms prevent HIV transmission. Below are a few questions to assess whether an evaluation is warranted. If the answer to most is "Yes" then an evaluation may be useful:

- Is the programme to be evaluated new or novel and not yet proven effective?
- Is there a well defined programme impact pathway?
- Is there an operational definition of what it means to be reached by the program?
- Has enough time elapsed since programme initiation to assume that change is feasible?
- Was the programme implemented based on standards of quality that were consistently measured?
- Is it possible to identify a comparison group of similar persons who have not been reached?
- Is there minimal turnover in the population?
- Will the findings of the evaluation result in major changes in allocation of funding?
- Is there sufficient stakeholder support and sufficient resources to conduct an evaluation?

7.2.2 Selection of an outcome evaluation study design

Three levels of evidence used in outcome monitoring and evaluations are described in Box I.7.5. Once a design is chosen, develop a protocol for the evaluation that describes each aspect in detail (see information on bio-behavioural survey protocols in the first part of this step, pg. 120).

Box I.7.5 Characteristics of evaluations

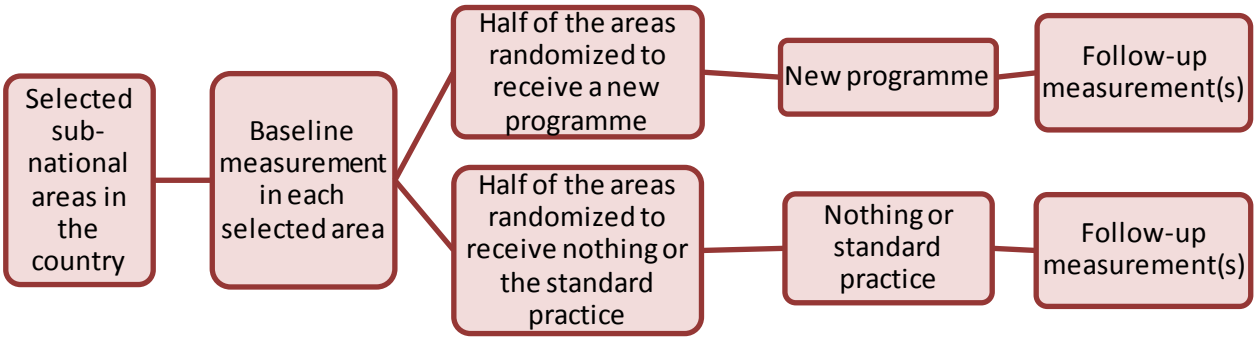
Type of evidence	Type of statement	Type of study
Adequacy	The expected change occurred	Cross-sectional or longitudinal study with two measurement points
Plausibility	Programme seemed to have an effect based on a step-by-step ruling out of alternative explanations	Quasi-experimental designs and pre-post designs
Probability	The programme caused the change with only a small probability that the difference between intervention and comparison group was due to confounding, bias or chance	Randomized control trials

Source: Habicht JP, Victora CG, Vaughan J. Evaluation designs for adequacy, plausibility and probability of public health programme performance and impact. *International Journal of Epidemiology* 1999; 28:10-18.

Methods

Probability designs are often used to evaluate a new programme or when the effectiveness of the programme is unknown or there is potential for negative effects. One probability design is the randomized community trial. See Figure I.7.7. An experimental design generally requires high capacity and resources. Randomization must be carefully planned (Craig et al, 2008). The design of probability evaluations benefits from consultation with epidemiologists and biostatisticians. Due to complexity in design, implementation, analysis and interpretation, only consider a community randomized trial if there is a well-defined, narrow hypothesis (to identify success or failure of the key intervention) *and* there is a measurable intervention, to be able to assess its implementation *and* there are well-defined, measurable outcomes. These conditions also apply to the use of quasi-experimental designs (see Figure I.7.7).

Figure I.7.7 Randomized community trial: Design, Features and Requirements

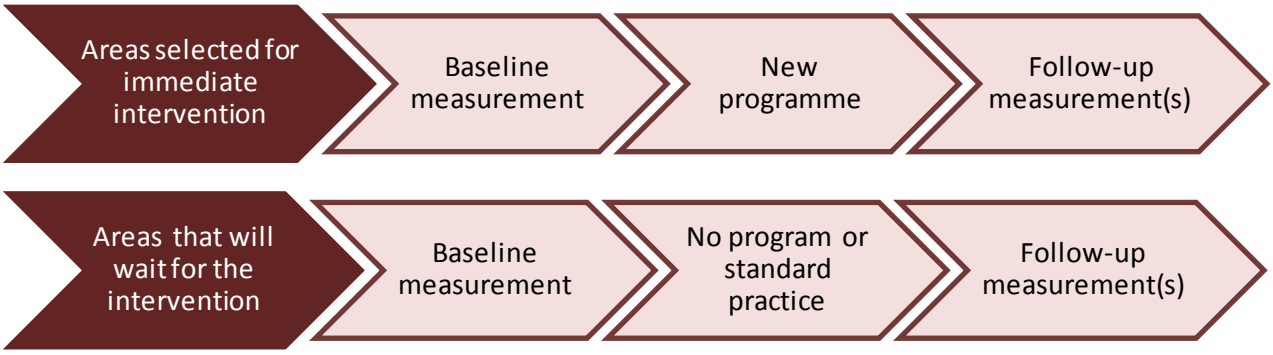


Box 1.7.6 Features and considerations for probability designs

Features	Requirements /considerations
Areas are randomized to either get the intervention or not. Baseline and follow-up surveys are conducted in each area to assess if there was a difference in the change in outcomes in intervention versus "control" areas. The strength of randomization is that factors that affect the success or failure of an intervention are assumed to be balanced in intervention and control areas. Interpretation: The difference in randomized versus control/comparison areas is very likely to be due to the intervention.	• Withholding interventions is not ethical if standard practice and effectiveness already proven. • If implementation of a new programme is staggered for budgetary or practical reasons, then the waiting period is an opportunity to use a comparative design to measure the effectiveness of the new programme. • Findings from randomized studies are stronger if outcomes are measured in the same individuals at baseline and follow-up and findings can be linked using a unique identifier code. This approach is labour-intensive and expensive, however, and would benefit from expert consultation to implement it well. • Cross-sectional surveys of the population in intervention and control/comparison areas at baseline and follow-up are a more feasible design to implement, although there is less certainty about whether exposure to the new programme caused any change in behaviour observed. • If people move between intervention and control areas, the effectiveness of the intervention may be underestimated.

Plausibility designs are the most common types of evaluation designs and include quasi-experimental designs and pre-post designs. See Figures I.7.8 and I.7.9.

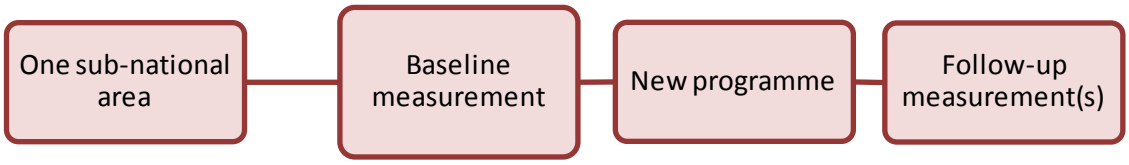
Figure I.7.8 Quasi-experimental design example: Design, Features & Requirements



Box 1.7.7 Quasi-experimental plausibility design features and considerations

Features	Requirements /considerations
Some areas are selected using a method other than randomization to receive the intervention. Baseline and follow-up surveys are conducted in each area. Interpretation: The difference in selected versus comparison areas is probably due to the intervention, although there may be other explanations.	• Randomization may not be feasible or ethical. This design is useful if there are several priority areas for intervention and a willingness to collaborate. • One cannot assume that observed differences between the areas are due to the programme. • Information on the similarity of intervention and comparison areas is needed for interpreting the results.

Figure I.7.9 Pre-post design



Box 1.7.8 Pre-post plausibility design features and considerations

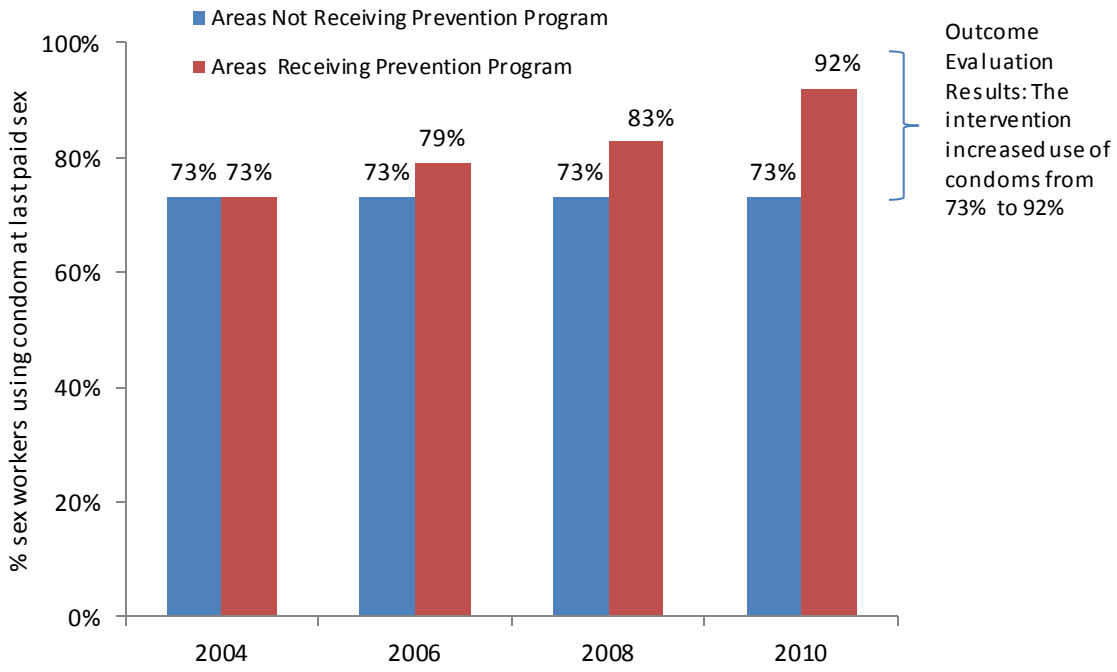
Features	Requirements /considerations
Within a selected area, baseline and follow-up measurements are conducted. Interpretation: The difference in outcomes before and after the intervention may be due to the intervention if there is evidence that there are no competing explanations.	Interpretation of pre-post outcome evaluations is difficult. The first set of pre-post comparisons should be interpreted with extreme caution. Results from pre-post measurements become more compelling if there is complementary information from service delivery statistics and if the findings are repeated in subsequent measurement rounds.

Products

- Graphs for outcomes measured in intervention and non-intervention areas or pre-intervention vs. post-intervention
- Indicators for outcomes measured in intervention and non-intervention areas or pre-intervention vs. post-intervention
- Report of outcome evaluation

Graphs of Outcome data linked to a specific programme are useful. Figure I.7.10 shows the difference in outcomes related to risk for HIV transmission in areas exposed to a certain programme with those in areas that did not. In the intervention area, the outcome indicator increased positively over time. The difference (20% vs. 60%) can be attributed to the programme if the protocol for collecting and analysing the data was sound and well implemented.

Figure I.7.10 Outcome Evaluation of Condom Distribution Programme for Sex Workers



Effect of the intervention on self-reported use of condoms at last paid sex: In crude analysis, use of condoms above 73% can be attributed to the intervention because 73% condom use was achieved in the absence of an intervention (given all other conditions were identical/similar).

7.2.3 Outcome Evaluation Analysis

Methods

Summary tables and graphs should compare the following measures for the entire population and sub-groups at baseline and follow-up in intervention and comparison areas:

- Socio-demographic characteristics
- Outcome indicators related to transmission risk (i.e., sexual behaviour, injecting drug use)
- Indicators related to contributing factors (stigma, incarceration, etc.)
- Prevalence of HIV and STI (if relevant)
- Exposure to each prevention service and to the full package
- Association between exposure to the full package and risk behaviour

Box I.7.9 provides an example of a summary table for comparing indicators among the entire population and among sub-groups in intervention and comparison areas. See Tools 22 (pg. 193), 23 (pg. 202) for a list of outcome measures.

Box I.7.9 Summary table for comparing indicator data

Include title indicating populations, method, period of data collection, geographic areas						
	Baseline: Year		**Follow-Up 1: Year** (add more columns with subsequent measurements)		Measure of effect (odds ratio*)	Indicator target
Population	Comparison area	Intervention area	Comparison area	Intervention area		
All surveyed	Number surveyed	Number surveyed	Number surveyed	Number surveyed		
Indicator 1	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Odds ratio	Target for indicator
Indicator 2	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Odds ratio	Target for indicator
Sub-group 1 (Ex. Women 15-24)	Number of women 15-24 years surveyed	Number surveyed	Number surveyed	Number surveyed		
Indicator 1	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Odds ratio	Target for indicator
Indicator 2	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Estimate with confidence interval	Odds ratio	Target for indicator

* The odds ratio gives an indication of how much higher or lower the indicator is in the intervention compared with the comparison area. For example, if the indicator was 30% in the intervention area and 10% in the comparison area, the crude odds ratio would be 3. Computer programmes can estimate how precise the estimate is based on the actual data and provide a "confidence interval" around the estimate.

A well-conducted outcome evaluation includes a local assessment of the face validity of the findings. If the evaluation shows a decrease or increase in risky behaviour, important questions must be asked before concluding that the change was due to the intervention:

- Is it reasonable to believe that the programme caused the changes in outcome?
- Is there information available on how the programme was implemented and the context in which it was implemented?
- What services were included in the programme delivery?
- Were the services sufficiently funded?
- Were the services implemented according to plan?

- Did the services actually occur?
- Did the observed outputs reach the targets set for the service(s)?

One way to investigate the findings of an outcome evaluation is to set up a mock debate in which the same service delivery data, survey data and outcome evaluation findings are used by two teams. One team can argue that the intervention was not effective and the other can argue that the intervention was effective.

Community-led communication of findings from monitoring and evaluation assessments
Discussion of the findings from outcome monitoring and evaluation requires community input and discussion. Key people from several sub-national areas may want to meet and compare findings informally before a national meeting is organized (see also Step 8 for dissemination strategies).

7.2.4 Modelling

If empiric evidence of a programme's effect on HIV transmission is not availble, there are some statistical modeling approaches that can be used to *estimate* a programme's effect on behaviour change. Observed behaviours can be plotted against estimated levels of behaviour had no intervention taken place. Modeling the effect of a programme requires an understanding of the assumptions in the model and experience with interpreting models. (see section 8.2).

Further information on evaluation methods:

- UNAIDS (2010). Strategic Guidance for Evaluating HIV Prevention Programmes. Geneva, UNAIDS. http://www.unaids.org/en/media/unaids/contentassets/documents/document/2010/12_7_MERG_Guidance_Evaluating%20HIV_PreventionProgrammes.pdf
- The Global Fund to Fight AIDS, Tuberculosis and Malaria (2009). Evaluating large complex health interventions and their scale-up. Meeting Report on a Technical Workshop, London, 17-18 Sept 2009.
- Medical Research Council (2006). Developing and evaluating complex interventions: new guidance. Available on www.mrc.ac.uk/complexinterventionsguidance
- UNAIDS (2009). HIV Triangulation Resource Guide. Geneva, UNAIDS. http://data.unaids.org/pub/Manual/2009/20090915_hiv_triangulation_resource_guide_en.pdf
- The World Bank (2009). Institutionalizing Impact Evaluation within the Framework of A Monitoring and Evaluation System http://lnweb90.worldbank.org/oed/oeddoclib.nsf/InterLandingPagesByUNID/E629534B7C677EA78525754700715CB8
- UNAIDS (2010). Guidance on Developing Terms of Reference for HIV Prevention Evaluation. UNAIDS, Geneva. http://www.unaids.org/en/media/unaids/contentassets/documents/document/2010/6_MERG_Guidelines_Developing_Prevention_Evaluation_TOR.pdf
- UNDP (2009). Handbook on Planning, Monitoring and Evaluating for Development Results. UNDP, New York. http://web.undp.org/evaluation/handbook/

Further information on GOALS:

- http://www.futuresgroup.com/fg/resources/software.cfm?page=Software&ID=GOALS

E. Summary

This step helped you to develop:

- ❑ Protocol for outcome monitoring
- ❑ Trend analysis of outcome indicators at sub-national and national levels
- ❑ Aggregation method for national indicators
- ❑ Outcome evaluation protocol
- ❑ Report of outcome evaluation

Step 8. Impact monitoring and evaluation: Is the combination HIV prevention programme reducing HIV transmission?

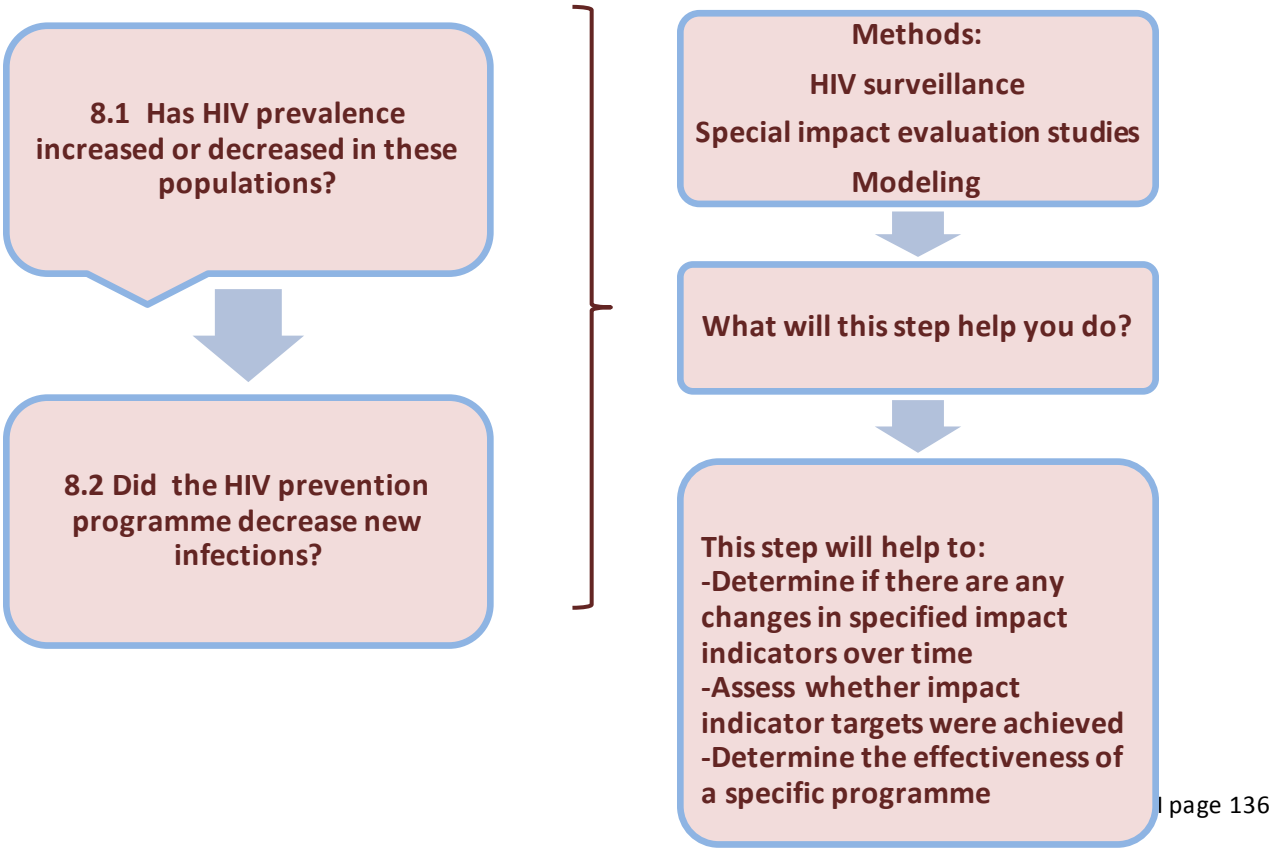
A. Rationale – Why is this step important?

The ultimate goal of a combination HIV prevention programme is to reduce the number of new HIV infections. *Impact monitoring* describes trends in HIV prevalence, HIV incidence or HIV-related mortality. *Impact evaluation* assesses whether changes in HIV prevalence or incidence can be attributed to the overall HIV prevention programme for sex workers, men who have sex and transgender people. See Box I.8.1.

Box I.8.1 HIV Incidence versus HIV Prevalence: What's the Difference?

Annual HIV incidence is defined as the rate of new HIV infections occurring during a year for every 100 (or 1000) people at risk of infection at the start of the year. HIV prevalence is the proportion of the population infected with HIV at any point in time. For example, among a population of 120 sex workers 20 may be currently infected, so HIV prevalence is 18%. Of the remaining 100, if 10 become infected in the next year, HIV incidence would be 10% (i.e., 10/100) and HIV prevalence would rise to 25% (30/120) if there are no deaths in the population.

B. Step 8 Flowchart of Key Questions, Methods and Data Use (Figure I.8.1)



C. How to answer key questions and use data: Overview for Step 8

	Key Question	Methods	Data Use
8.1	Has HIV prevalence increased or decreased in these populations?	HIV surveillance among key population and sub-groups	Use trends to assess progress towards targets and strategically inform next steps for national response
8.2	Did the HIV prevention programme decrease new infections?	1. Special impact evaluation studies 2. Use available data to model the effectiveness of HIV prevention efforts	Use evaluation findings about the impact of HIV prevention programmes to estimate infections averted and improve / intensify programmes, where needed

D. Methods and tools

8.1 HIV surveillance among key population and sub-groups

Impact monitoring does not determine whether changes in HIV incidence or prevalence are a result of a programme. Impact monitoring is similar to outcome monitoring (see section 7.1). The difference is that instead of tracking condom use or injecting drug behaviour, the focus is on prevalent (or incident) HIV infection.

Methods

The most efficient way to monitor impact is to collect (or use existing) data on HIV prevalence by age and data on the time since the start of risky behaviours such as unprotected intercourse. These data allow for assumptions that young people are recently infected. For example, if a 23-year-old injector living with HIV reports that he first had intercourse and began injecting at age 21, it is reasonable to assume that he was infected in the previous two years. Therefore, he is considered having been recently infected (or as an incident case).

Interpretation of HIV prevalence trends is not straightforward. A decrease in the prevalence of HIV infection does not necessarily indicate that there are fewer new infections. For example, if the number of new HIV infections is increasing, HIV prevalence can decrease if HIV-positive people die. Trends in HIV infection among young people are less likely to decrease based on mortality, which makes age-specific prevalence of young people (≤24 years of age) a useful proxy for recently acquired infections. See additional resources for other UNAIDS and WHO guidelines that give a full description of methods to estimate HIV prevalence and/or incidence.

If behavioural surveys do not currently include HIV testing, then such inclusion should be considered for reasons that extend beyond measuring impact. Adding HIV testing to a behavioural survey is extremely useful for identifying the characteristics of people who are living with HIV and tracking the epidemic in

the population. However, the need for additional time, effort, and cost should be carefully considered and addressed including:

- Cost of HIV testing, training, supplies, record-keeping, possible incentive payment
- Issues regarding informed consent, need for counselling, providing test results and confidentiality of test results
- How to encourage people living with HIV who already know their status who refuse to participate in the survey
- Whether testing may increases stigma associated with participating in the survey
- Possible need to increase sample size if a precise estimate of HIV prevalence is needed

HIV-associated mortality is a key impact indicator. However, few settings have the resources or systems to measure mortality associated with HIV among men who have sex with men, sex workers and transgender people. If mortality data are available, they may be used by linking to cohort data, or compared to increases in antiretroviral treatment (Pacheco et al., 2009). HIV case surveillance with a follow-up component can effectively capture HIV-related mortality and probable mode of HIV transmission, as well as treatment history (Zhang et al., 2009). Mortality data specific to sex workers, men who have sex with men, and transgender people are difficult to obtain. Improvement of civil registration and HIV case reporting systems will ultimately lead to have such data but a full discussion of this is beyond the scope of this document (see WHO/UNAIDS recommendations for the improvement of mortality data collection which will be released in 2011).

Products

- HIV prevalence by age group over time among men who have sex with men, sex workers and transgender persons

	Key Question	Methods	Data Use
8.2	Did the HIV prevention programme decrease new infections?	1. Empiric assessment of impact of HIV prevention efforts 2. Triangulation analysis 3. Model effectiveness 4. Reporting results	Use evaluation findings about the impact of HIV prevention programmes to estimate infections averted and improve / intensify programmes, where needed

8.2.1 Estimating the impact of the programme on HIV incidence

Conducting a comparative evaluation study to establish the effect of a specific programme on HIV infection is particularly challenging. Measuring incident HIV infection would require that thousands of people participate in a study in order to expect a detectable difference in new infections between the intervention and the comparison areas that may be due to the intervention. For example, in a 2009 study of a possible HIV vaccine in Thailand, the difference in the number of new HIV infections in the intervention versus control group was fewer than 20, although the number of people enrolled in the study was over 4,000.

8.2.2 Triangulation analysis to estimate the impact of the programme on HIV incidence

Triangulation is an integrated analysis of trends in indicators from national/sub-national data on behavioural, HIV, STI and other outcomes. See "Additional resources" below for detailed guidelines on data triangulation analysis.

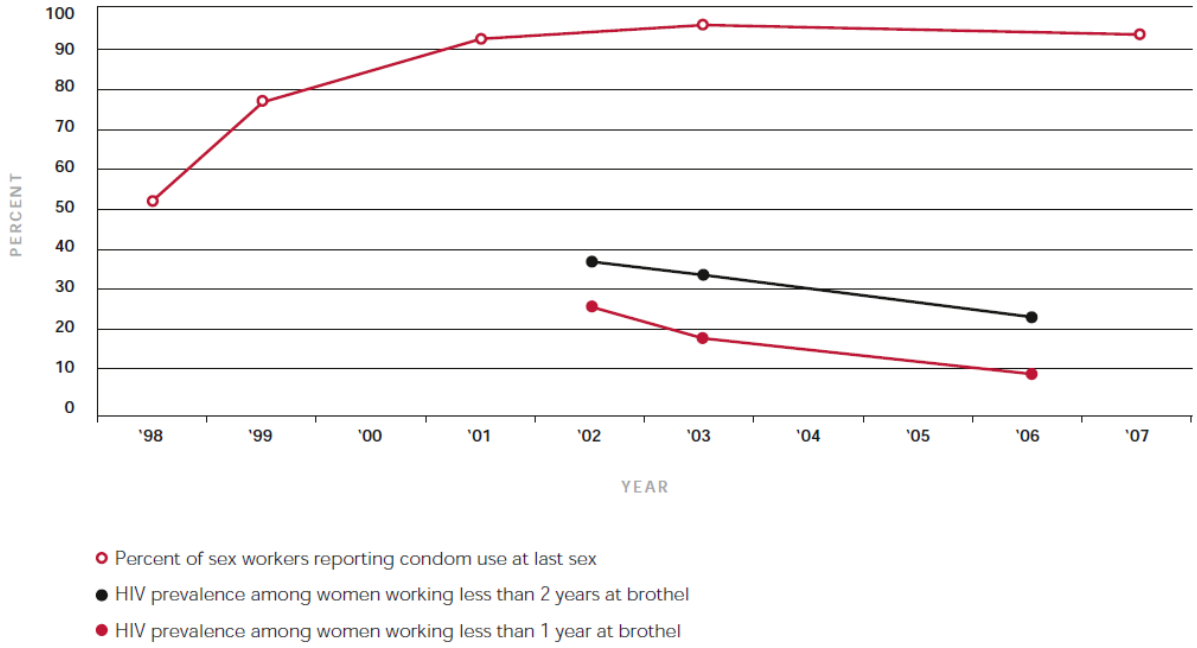
The figure below illustrates that HIV prevalence among new sex workers (those working less than 1 year) is lower than sex workers working longer. Both groups have had a decline in prevalence. Understanding why the prevalence has declined in not straightforward. One explanation is suggested by the increase in condom use reported by the sex workers. In order to confirm this explanation, additional information would be useful. For example, a survey of venues could provide insight into whether condom availability at venues has been sustained over time. Focus groups with sex workers could identify strategies used to increase condom use. In addition, alternative explanations could be explored. For example, did venue terminate employment for sex workers who tested positive for HIV? Analysis of several data sources can be used to gain insight into trends.

Figure I.8.2 Condom use and HIV prevalence among sex workers in Cambodia

Condom use and HIV prevalence among sex workers in Cambodia

Percentage of sex workers using condoms and HIV prevalence among brothel-based sex workers in Cambodia by length of time involved in sex work, 1998–2007.

Source: M Mahy, C Chhea, T Saliuk, O Varetska, R Lyerla (2010). A proxy measure for HIV incidence among populations at increased risk to HIV Vol 2(1):8, Journal of HIV/AIDS Surveillance and Epidemiology.



8.2.3 Modelling the effectiveness of HIV prevention efforts

Modelling can play an important role but needs to be applied in an appropriate manner. It relies heavily on the availability of good quality data in order to yield meaningful results. Combine a range of approaches to analyse trends in HIV incidence, since there is no single perfect modelling technique. These data triangulation and associated modelling analyses need to be conducted by experienced data analysts and with involvement of a wide range of stakeholders (see section 7.2, pg. 126).

Examples of modelling techniques: Modes of Transmission (MOT) and the GOALS model

There are some spreadsheet tools available which can be used to *explore* the possible effect of HIV prevention programmes on the HIV epidemic. For example, the MOT spreadsheet uses a set of assumptions about HIV infectiousness and transmission probabilities to estimate the number of new HIV infections. The inputs necessary to use model include:

- Population size
- HIV prevalence
- STI prevalence
- Number of sexual partners per year
- Number of acts of exposure per partner per year
- Percentage of sexual acts that are protected
- Number of people receiving ART.

These can be obtained from bio-behavioural surveys and good estimates of the size of the population.

The GOALS model is another example of computer modelling software within the Estimation and Projection Package (Spectrum) that can help plan and evaluate programmes. It is quite technical and will likely require expert consultation. The GOALS model can help to predict:

- What would the national prevalence among transgender people be had we not implemented our activities? Would the same changes have occurred had we done nothing at all?
- How many new HIV infections among transgender people did we avert due to the increased coverage of our activities?
- What was the cost for each estimated new HIV infection averted transgender people? Are our activities cost effective?

It is clear from these examples, that modelling requires a range of data that may not be available in some countries.

8.2.4 Reporting

Preparing a national evaluation report

The most common way to share the information of an evaluation is through the creation of a report that includes detailed statistical analysis of data that was collected throughout the M&E cycle. This report will serve as a foundation for all other data dissemination products targeting different audiences. Clearly highlight important findings in the evaluation report, their implications for policy formulation, programme planning and improvement, and resource allocation. Write the recommendations in a manner that is readily accessible to a range of audiences.

The following should be included in a national evaluation report on the impact of HIV prevention on the HIV epidemic among men who have sex with men, sex workers and transgender people*:*

- Executive summary (including findings and recommendations for policy formulation, programme planning and improvement, and resource allocation)
- Background information
- Objectives of the evaluation
- Evaluation methods used
- Detailed data analysis and evaluation findings
- Discussion and interpretation of the evaluation findings
- Recommendations for policy formulation, programme planning, and resource allocation
- Recommendations for additional data collection to address key information gaps

Dissemination of evaluation findings

One of the most important aspects of evaluation is disseminating the results to key partners. This provides feedback to the national HIV prevention programme on prevention activities from the community. Sharing the results also informs policy-makers, donors and evaluators about the current status of the HIV epidemic among men who have sex with men, sex workers and transgender people. This has the potential to influence policy, funding, future programmes and broaden societal awareness of the HIV epidemic men who have sex with men, sex workers and transgender people. Recipients of a national evaluation report *include*:

- Men who have sex with men, sex workers and transgender people.
- Policy-makers and decision-makers (ministry of health, office of the president)
- Programme managers and those responsible for M&E at all levels
- Programme funders, providers of technical assistance and international donor organisations
- Research community (national and international universities)
- Community members and organisations (NGOs, community led networks/organizations, community leaders)
- General public and Mass media

The dissemination products should be tailored to the specific audiences. See examples in Box I.8.2.

Box I.8.2 Tailored products/methods for disseminating evaluation findings

Dissemination methods	*Description*
Briefing materials	- aimed at press and mass media - avoid technical language - focus on one or two key findings
Policy briefs	- aimed at leaders and policy makers - focus on one or two key findings - discuss implications of findings - give recommendations towards future prevention activities - develop tailored briefs for different policy makers
Group meetings and presentations	- aimed at men who have sex with men, sex workers and transgender people, groups of policy makers, programme managers, or general public - present key findings - answer questions - discuss implications for programme improvement
Individualized meetings and presentations	- aimed at influential people (policy makers, community leaders, NGOs and national/sub-national programme managers) - highly personalized - share key results and discuss implications for programme improvement - needs time and intensive preparation if to be used effectively

Adapted from FHI (2001) *Evaluating Programs for HIV/AIDS Prevention and Care in Developing Countries*

Products

- Assessment of whether programme reduced HIV incidence based on empiric assessment, triangulation or modelling
- National Evaluation Report

Further information on data triangulation and evaluating impact of HIV prevention:

- FHI (2010). Data triangulation for HIV prevention programme evaluation in low and concentrated epidemics. FHI, Asia Pacific Regional Office. http://www.fhi360.org/en/HIVAIDS/pub/res_DataTriangulation.htm
- GOALS: http://futuresgroup.com/resources/software_models/goals_model
- Mahy M, Chhea C, Saliuk T, Varetska O, Lyerla R (2010). A Proxy Measure for HIV Incidence among Populations at Increased Risk to HIV. In: New Strategies and Methods for HIV/AIDS Surveillance in Low and Middle Income Countries. jHASE Special Issue 2(1): http://www.ieph.org/HASE/j-gateway.htm
- WHO (2009). HIV Triangulation Resource Guide. WHO, Geneva. http://www.who.int/hiv/pub/surveillance/triangulation/en/
- UNAIDS (2010). Strategic Guidance for Evaluating HIV Prevention Programmes. UNAIDS, Geneva. http://www.unaids.org/en/media/unaids/contentassets/documents/document/2010/12_7_MERG_Guidance_Evaluating%20HIV_PreventionProgrammes.pdf

List of references on methods for estimating HIV incidence:

http://data.unaids.org/pub/BaseDocument/2010/epi_alert_1stqtr2010_listref_expanded_en.pdf

- UNAIDS/WHO (2010). When and how to use assays for recent infection to estimate HIV incidence at a population level. http://www.who.int/hiv/pub/surveillance/sti_surveillance/en/index.html
- Guidelines for Effective Use of Data from HIV Surveillance Systems (2004). http://www.who.int/hiv/strategic/surveillance/en/useofdata.pdf

Further information on dissemination of evaluation findings:

- Rehle et al. 2001 Evaluating Programmes for HIV/AIDS Prevention and Care in Developing Countries. FHI, Arlington. http://fhi.org/en/HIVAIDS/pub/Archive/evalchap/index.htm

E. Summary

This step helped you to develop:

- ❑ Impact evaluation protocol and report
- ❑ Modeling of effectiveness of HIV prevention efforts

Appendices

Appendix 1. Tools

TOOL 1. Illustrative critical enabler activities and indicators

TOOL 2. Overview of Size Estimation Methods

TOOL 3. Summary of HIV prevalence data for sex workers and population size estimates. Example for sex workers.

TOOL 4. Example *Know Your Epidemic* spreadsheet

TOOL 5. Worksheet for setting impact, outcome, and coverage targets at sub-national or national level. Example for sex workers

TOOL 6. Topics to address in a rapid assessment for men who have sex with men, transgender people and sex workers

TOOL7. Input Form: Funds availability

TOOL 8. Quality checklist. Example for men who have sex with men

TOOL 9. Comprehensive Encounter Form

TOOL 10. Short Encounter Form

TOOL 11. Sample survey questions to obtain data for measures. Example for men who have sex with men

TOOL 12. Target setting worksheet for quality and output measures at the service delivery level

TOOL 13. Output Form: Training log

TOOL 14. Referral card and referral monitoring form

TOOL 15. Form for monitoring distribution of condoms

TOOL 16. Form for monitoring HIV testing and counselling interventions

TOOL 17. Form to calculate the number of people reached by outreach programmes

TOOL 18. Form to monitor outputs across outreach workers

TOOL 19. Checklist for post-service user-centred approach for provision of condoms and condom-compatible lubricants

TOOL 20. Tool for participant feedback to assess distribution of condoms and condom-compatible lubricants

TOOL 21. User satisfaction survey for HIV testing and counselling

TOOL 22. Worksheet to Select Measures at National, Sub-National and Service Delivery Levels to Monitor and Evaluate Programs for Men who Have Sex with Men and Transgender People

TOOL 23. Worksheet to Select Measures at National, Sub-National and Service Delivery Levels to Monitor and Evaluate Programs for Sex Workers

TOOL 24. Recommended Community Systems Strengthening Indicators

Appendix 2. HIV/AIDS Monitoring and Evaluation Glossary

Appendix 3. References

Appendix 1. Tools

TOOL 1. Illustrative Critical Enabler Activities and Indicators

Critical enabler interventions	Activities- Examples	Indicators – Examples
Social Enablers:		
Political commitment and advocacy	Oganisation of events for the head of state to address HIV transmission; Increasing commitment to address HIV through multisectoral responses by including HIV in social protection programmes, poverty reduction, education and gender empowerment initiatives	Output: Number of events where HIV addressed by head of state
Stigma reduction	Engaging community, religious and political leaders to challenge stereotypes and norms, values and culture that fuel stigma; increasing knowledge about HIV transmission and its causes and impact	Output: Number of stigma reduction sessions held with religious leaders Outcome: Percentage of sex workers that experience stigma
Laws, legal policies and practices	Conducting a thorough review of existing laws to identify laws that impede HIV response and advocating for repeal of laws such as criminalization of HIV transmission, decriminalization of male-to-male sex, etc., or amendment of laws such as narcotics laws, trafficking laws, criminal procedure laws etc.; Promoting laws against gender-based violence and gender equality; Promoting the development and adoption of anti-discrimination legislation in all areas, including in access to health services, education and employment Strengthening accountability mechanisms to curb abuse of laws by law enforcers, creating accessible and effective mechanisms for aggrieved individuals to access and obtain justice Building epidemiological + legal literacy into curricula for judges, law makers, implementers, community groups, people affected, etc.	Output: Number of improved national laws regarding criminalization of HIV transmission or same-sex relations Number of grievances made due to violations Number of grievances addressed
Community mobilisation	Identification of key populations at higher risk that need HIV services and key hotspots through which information and services will be disseminated; establishing networks of people living with HIV and other key populations for sharing information, education and communication; engaging the family members of key populations at higher risk and wider community to support information, education and communication initiatives; community empowerment and violence reduction strategies among key populations at higher risk	Output: Number of sex worker networks Outcome: Percentage of sex workers reached by networks/community empowerment interventions

Critical enabler interventions	Activities- Examples	Indicators – Examples
Local responses to change the risk environment	Data about local HIV prevalence and mapping of local HIV service providers; engagement of local government, religious and traditional leaders and networks of people living with HIV and key populations at higher risk; engagement of local government, religious and traditional leaders to promote gender equality and reduce harmful gender norms	Output: Number of local government, religious and traditional leaders that participate in gender equality interventions Outcome: Percentage of local government, religious or traditional leaders that report stigma towards key populations
Programme Enablers		
Community-centred design and delivery	Participatory needs assessments and planning of the programme activities to identify key high-risk behaviour and its causes and consequences; Participatory monitoring of programme activities to identify bottlenecks, lessons learned and corrective actions	Output: Number of needs assessments in which individuals from key populations participated.
Programme communication	Developing strategic information about programme achievements and impact Sharing information about the impact through brochures, radio, TV and local community meetings	Output: Number of radio or TV spots aired Outcome: Percentage of key populations aware of programme activities
Health education	Incorporating skills-based activities for HIV into information, education and communication and curricula; train and support teachers; regular assessment of knowledge, attitudes, skills and behaviour	Output: Number of schools that that include skills-based activities for HIV in curricula Outcome: Percentage of teachers reporting stigma towards key populations Percentage of youth with skills-based HIV knowledge, attitudes and behaviours
Gender equality and gender-based violence interventions	Empowerment of women and transgender people through gender equality and HIV training; community mobilization, peer-based participatory education challenging harmful gender norms, particularly among men, boys and girls	Output: Number of transgender individuals that participate in gender equality and HIV training Outcome: Percentage of transgender individuals reached by gender equality and HIV training Percentage of transgender individuals reached by peer-based participatory education challenging harmful gender norms

Adapted from: UNDP/UNAIDS (2012). Understanding and acting on critical enablers and development synergies for strategic investments.

TOOL 2. Overview of size estimation methods

Method name	Description	Advantages	Disadvantages
Census/ Enumeration	-Census methods count all members of the population. -Enumeration methods develop a sampling frame and count all members of the population at a sample of places listed in the sampling frame.	-Census methods are the gold standard as it is a full count of the population - Use in program planning, implementation, evaluation	-Key populations are often hidden and it is likely that any census or enumeration methods will miss members of the population. -Stigma against key populations may preclude self-identification as population member -Time consuming and expensive to conduct
Capture-recapture	-Uses mathematical formula to calculate total size of population based on two independent captures of population members 1) Capture 1: 'tag' and count number tagged 2) Capture 2: 'tag' and keep track of who is 'retagged' & who is 'first time tagged'	- When applying a simple two-sample capture-recapture model the method: is relatively easy to use; does not require much data; the effect of violating assumptions is easy to understand (e.g. samples not independent); does not require considerable degree of statistical expertise	Relies on four conditions that are hard to meet: 1) two samples must be independent & not correlated 2) each population member should have equal chance of selection 3) correctly identify 'capture' & 'recapture' persons 4) no major in/out migration
Multiplier	-Compares two independent sources of data for key populations -Source 1: count/listing of key population who accessed a service/object -Source 2: survey with representative sample that gives % of key population that accessed service /object	-Uses data sources already available - Flexible in terms of a sampling method, such as random sampling or nomination (snowball) sampling methods; - Useful in many circumstances - Easy when already doing a BSS	-Two sources of data must be independent -Data sources must define key population in the same way -Time periods, age ranges and geographic areas must be aligned -Inaccuracy of programme data used as a benchmark

Method name	Description	Advantages	Disadvantages
Nomination method **(also called 'snowball' 'respondent driven' or 'chain' sampling methods)**	-Begins with a few known members of key population -Asks them to nominate/contact peers who share same behaviours	-With key population members helping to make introductions method can be easy to conduct -Does not require much field work/site visits since key population members recruit peers	**-Not** recommended for size estimation Reasons why: 1) Populations often engage in behaviours that are illegal or stigmatized making it difficult to collect identifying information to help with de-duplication. 2) Begins with visible members of key population who may not represent complete population at risk 3) Depends on key population being networked 4) Sophisticated statistical methods necessary to analyse
Population survey methods	- Include questions relevant to behaviours of interest (male-male sex, sex work, etc.) in population based surveys	-Surveys are common and familiar -Easy to implement if survey is underway -Straightforward to analyse - Sampling is easy to defend scientifically ("gold standard")	-Low precision when behaviours are rare -Only reaches people residing in households -Respondents unlikely to admit to high risk or stigmatized behaviours within household where others can hear (privacy, confidentiality, risk to subjects)

Method name	Description	Advantages	Disadvantages
Network Scale-up Method	-Based on idea that people's social networks reflect the general population -Ask random sample in general population to estimate number of people they know who have a characteristic of interest -Uses maximum likelihood estimation for an unbiased estimate of how many people each respondent knows -These estimates allow for estimating size of population of interest	-Can generate estimates from general population rather than hard-to-reach populations -Does not require asking detailed sensitive questions or lengthy behavioural survey	-Dependent on having clear definition of what is to 'know' someone -Average personal network size is difficult to estimate -Accuracy of responses is unknown -Some subgroups may not associate with members of general population -Respondent may be unaware someone in his/her network engages in behaviour of interest -Biases (i.e. social desirability) may arise by types of questions asked
Extrapolation	-Creating an estimate for where data does not exist -Simple version: apply a standardized formula/% to all areas (men who have sex with men=4% of adult men) -Complex version: Apply a formula that takes into account context & geography	-Uses existing data sources -Provides way to get an estimate when little data are available about key populations	-Must consider geographic variability. Does same % hold for the key population in urban and rural areas? -Must know how generalizable local data sources are? Can they be extrapolated to other areas? -Definitions from data must match your population definition

TOOL 3. Summary of HIV prevalence data for sex workers and population size estimates. Example for sex workers.

This template is used to describe HIV prevalence data from sentinel surveillance programmes. The table explanation should:

- Provide references, links and documentation of all numbers included in the table.
- Describe who may be missed in the surveillance and known biases in protocol.
- Summarize information needed to interpret figures (e.g., sample size too small, little consistency in how to recruit participants over time, HIV test results not provided).

Notes: include full reference and information needed to interpret prevalence estimates. "N" refers to number tested. "%" is the percentage of those tested who are infected with HIV. The size estimate is the number of sex workers in the area.

HIV Prevalence Data: Number Tested, Percent HIV Positive and Estimates of Number of HIV Positive Sex Workers in Each Subnational Area								
Sampling Method and Reference		**Year**	**Sex workers**					
			Age 18-24		**Age 25+**		**Total**	
Sub-National Area 1			**Number HIV+/ N Tested**	**% HIV+**	**Number HIV+/ N Tested**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**
	RDS Study	Year 1						
	RDS Study	Year 2						
	Size Estimate							
Sub-National Area 2			**Number HIV+/ N Tested**	**% HIV+**	**Number HIV+/ N Tested**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**
	RDS Study	Year 1						
	RDS Study	Year 2						
	Size Estimate							
National Estimates			**Estimated Number HIV+/ Population**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**	**Estimated Number HIV+/ Population**	**% HIV+**
	Prevalence Estimates	Year 1						
		Year 2						
	Size Estimate							

Types of sub-groups requiring different strategies for HIV prevention					
Type	Estimated number in area	Where to reach them	Barriers to accessing care	Strengths of sub-group	Notes
Street-based sex workers					
Venue-based sex workers					

TOOL 4. Example *Know Your Epidemic* spreadsheet

Input required	Default values Input optional	Calculated by the model	Incidence Output	Need to check data

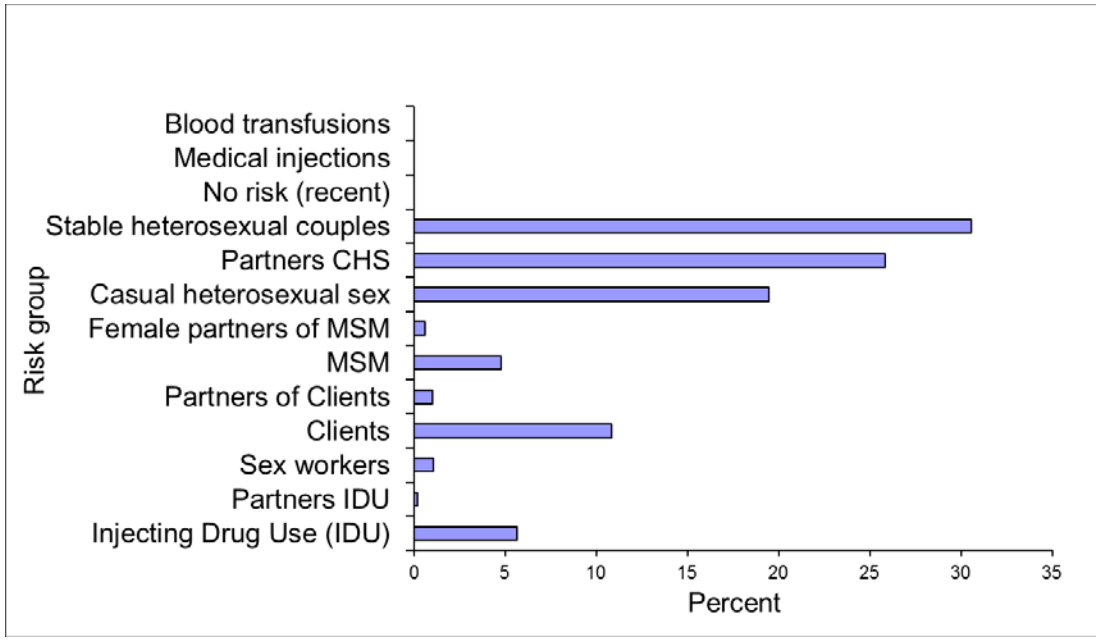
	Population	HIV prev (%)	Incidence range		Transmission probability per act of exposure					Male circumcision		ART	ART Transmission reduction		
COUNTRY, YEAR	Adults 15-49	Adults 15-49	Lower	Upper	Male --> female	Female --> male	IDU	MSM	STD cofactor	% Men circumcised	Reduction in transmission	Total number receiving ART	Heterosexual	Homosexual	Needles
Example Country	20,000,000	6.70%	1	2	0.001	0.00076	0.010	0.010	4	40.0%	0.6	402,000	0.96	0.90	0.80

NB:Use either Method 1 OR Method 2 to determine the total number with risk behaviour

	Method 1: Percent of population with risk behaviour (%)		Method 2: Population with risk behaviour											Transmission probability per exposure act				
Adult Risk Behaviour	*Male*	*Female*	*Male*	*Female*	*Total number with risk behaviour*	*Prevalence of HIV (%)*	*Number HIV+*	*Prevalence of STI (%)*	*Number of partners per year*	*Number of acts of exposure per partner per year*	*Percentage (%) of acts that are protected**	*Number of people reveiving ART*	*% of all HIV infected people on ART*	*with STI*	*No STI*	Incidence	% of incidence	Incidence per 100,000
Injecting Drug Use (IDU)	0.300%				30,000	20.00%	6000	3.5%	5	50	50.00%	1000	16.7%		0.008667	4,340	5.64	14,468
Partners IDU		0.150%			15,000	12.00%	1800	NA	1	70	7.00%	500	27.8%	0.0034	0.0008	154	0.20	1,025
Sex workers		0.65%			65,000	40.00%	26000	65.0%	163	4	65.00%	8000	30.8%	0.0032	0.0008	823	1.07	1,266
Clients	2.90%				290,000	8.10%	23490	15.0%	16	9	65.00%	5000	21.3%	0.0021	0.0005	8,345	10.85	2,878
Partners of Clients		1.450%			145,000	9.00%	13050	NA	1	70	7.00%	3000	23.0%	0.0032	0.0008	759	0.99	524
MSM	1.00%				100,000	20.00%	20000	15.0%	3	10	35.00%	3000	15.0%	0.0346	0.0087	3,656	4.75	3,656
Female partners of MSM		0.500%			50,000	15.00%	7500	NA	1	50	7.00%	1000	13.3%	0.0034	0.0009	470	0.61	940
Casual heterosexual sex	26.89%	12.41%			3,930,000	13.10%	514830	7.9%	2	35	35.00%	150000	29.1%	0.0024	0.0006	14,969	19.45	381
Partners CHS	9.93%	21.51%			3,144,000	6.50%	204360	NA	1	70	7.00%	50000	24.5%	0.0027	0.0007	19,895	25.86	633
Stable heterosexual couples	36.73%	37.53%			7,426,000	7.50%	556950	3.5%	1	70	7.00%	150000	26.9%	0.0026	0.0007	23,536	30.59	317
No risk (recent)	22.25%	25.80%			4,805,000	0.00%	0	0.0%	0	0		0	#DIV/0!	-		0	0.00	0
Medical injections					0	6.70%		NA	1	1	95.00%				0.005	0	0.00	#DIV/0!
Blood transfusions	0.50%	0.50%			100,000	6.70%		NA	1	1	100.00%				0.9	0	0.00	0
TOTAL ADULT POPULATION	100.00	100.00			20,000,000	6.87%	1,373,980					371500	27.0%					
												Total number of new infections				76,947		385
												New infections among partners of high risk pops				21,278	27.65	634

* Sexual acts are protected through condom use and injecting drug acts through the use of sterile injecting equipment

Figure. Percentage of New Infections by Risk Group



Source: UNAIDS (2012). Modelling the expected short-term distribution of incidence of HIV infections by exposure group. UNAIDS, Geneva.

TOOL 5. Worksheet for setting impact, outcome, and coverage targets at sub-national or national level. Example for sex workers

NOTE: Not all possible measures are included here. See list of measures in Tools 22 (pg. 193), 23 (pg. 202).

	Measure	Year	Estimate	Target	Target met? No / Yes
Impact measures					
G1	HIV prevalence among sex workers				
1.4	HIV incidence among sex workers				
Outcome measures — Biologic determinants					
G2	Percentage of female and male sex workers reporting the use of a condom with their most recent client				
2.1	Percentage of sex workers reporting symptoms of an STI in the past 12 months				
Outcome measures — Critical enablers and enabling environment					
2.9	Percentage of sex workers who report not experiencing stigma in the last 12 months				
2.10	Percentage of sex workers not reporting physical violence within last 12 months				
Coverage measures					
G5	Percentage of sex workers reached with HIV prevention programmes				
3.8	Percentage of sex workers who have received IEC				
G6	Percentage of eligible adults (sex workers) currently receiving antiretroviral therapy				
G9	Percentage of adults (sex workers) with HIV known to be on treatment 12 months after initiation of antiretroviral therapy				
3.6	Percentage of sex workers screened for STI in the past 12 months				

TOOL 6. Topics to address in a rapid assessment for sex workers, men who have sex with men and transgender people

Topics to address in a rapid assessment of sex workers can include:

Social enablers

- What national laws and policies restrict the rights of sex workers?
- What is the culture and context of sex work?
- Where do female sex workers solicit? Where do male sex workers solicit? What are the main strategies used to recruit clients? What proportion of sex workers are male?
- What is the pathway into sex work? What is the pathway out of sex work?
- What characterizes the relationship between sex workers and the police?

Programme enablers

- Which international donors are involved in providing services? What are the most important restrictions if any in the provision of donor funded services?
- In which sub-national areas are sex workers located? What is their age and educational level?
- Who are the main providers of services to sex workers? Who are the advocates? How is the community organized?

Individual factors

- Which factors increase the vulnerability of people in each of these populations to health problems including sexually transmitted infection and drug dependence?
- What are the characteristics of sex workers who appear to be most at risk for acquiring or transmitting HIV?
- Are there identifiable sub-groups that require different prevention approaches?
- What issues are perceived as important by sex workers?
- Which health issues are important?
- To what extent are transgender people engaged in sex work?

Note: Further information can be found in the WHO rapid assessment tool for MSM (2004): http://www.who.int/hiv/pub/prev_care/en/msmrar.pdf

Topics to address in a rapid assessment of men who have sex with men can include:

Social enablers:

- What national laws and policies restrict the rights of men who have sex with men?
- How do newspapers portray men who have sex with men?
- What is the stance of religious leaders regarding sex between men and gay marriage?
- What is the culture, sociological and historical context of sex and relationships between men?
- What is the pathway into sex work for young men who have sex with men who engage in sex work? What is the pathway out of sex work?
- Are there national or local groups of MSM that advocate for MSM? Who are these groups and where are they located? What are the objectives of these groups? Is HIV prevention one of their objectives?
- What is the role of beauty within the gay culture? Can values around beauty be tapped for increasing the acceptance of an HIV positive test result?
- How common are violence, discrimination and human rights violations against men who have sex with men? Have there been recent assessments of stigma or violence against men who have sex with men?

Programme enablers:

- Which international donors are involved in providing services? What are the most important restrictions if any in the provision of donor funded services?
- What are the sub-groups of men who have sex with men? What issues are important to each sub-group? Which health issues are important? What prevention strategies are required for each sub-group? Which sub-groups of men who have sex with men should be monitored separately?
- Who are the main providers of services to men who have sex with men?
- Are MSM who are well-educated and self-sufficient financially in need of additional targeted prevention programmes or are their needs served by current programmes or the private sector?
- Men who have sex with men may resist "advice" from health educators. What are the characteristics of messages that work?

Individual factors:

- Do men meet new sexual partners online, in public venues such as bars, clubs, parks, malls, saunas, public toilets, train stations, and/or at private parties? What is the socialisation environment like for men who have sex with men? Is it covert? Is bisexuality culturally acceptable?
- How does having male partners in secret or non-disclosure of sexual preferences influence likelihood of condom use?
- What is the perception of risk among men who have sex with men for HIV and STI?
- What are the characteristics of men who have sex with men who appear to be most at risk for acquiring or transmitting HIV? In which sub-national areas are they located? What is their age and educational level? What are the underlying causes of their increased risk?
- How does the individual's mental health influence his risk behaviour?
- Which factors increase the vulnerability of MSM to health problems including sexually transmitted infection and drug dependence?

Topics to address in a rapid assessment of transgender people can include:

Social enablers

- What is the culture and context of sexual relationships among transgender people?
- What national laws and policies restrict the rights of transgender people?
- How do newspapers portray transgender people?
- Who are the people who speak out about transgender issues? Are there national or local groups that advocate for transgender people? Who are these groups and where are they located? What are the objectives of these groups? Is HIV prevention one of their objectives?
- What is the role of beauty within the gay culture? Can values around beauty be tapped for increasing the acceptance of an HIV positive test result?
- What is the pathway into sex work for transgender people who engage in sex work?
- How common are violence, discrimination, human rights violations against transgender people? Have there been recent assessments of stigma or violence?

Programme enablers

- Which international donors are involved in providing services? What are the most important restrictions if any in the provision of donor funded services?
- Are there identifiable sub-groups that require different prevention approaches?
- Who provides services to transgender people?

Individual factors

- Where do transgender people meet sexual partners?
- To what extent are transgender people engaged in sex work?
- To what extent are transgender people at risk for HIV acquisition and transmission? What is the perception of risk among the population?
- What are the characteristics of transgender people who appear to be most at risk for acquiring or transmitting HIV? In which sub-national areas are they located?
- What issues are perceived as important by transgender people? Which health issues are important including psychological issues?
- Which factors increase the vulnerability of transgender people to health problems including sexually transmitted infection and drug dependence?

TOOL 7. Input Form: Funds availability

This form can be used by service providers at the sub-national area to estimate the funds available to conduct programme activities.

Service	Year	Funds Needed	Funds Received From:			Gap
			Government	Donor 1	Total	
ART						
HTC						
etc						

Note: ART – Antiretroviral therapy; HTC – HIV testing and counselling

TOOL 8 Quality/Programme enabler checklist.

The intervention quality encompasses the scope, completeness, safety, user satisfaction, consistency of services delivered and appropriateness to population targeted and setting in which it is delivered. High quality services with attention to programme enablers will ensure demand for services is high.

Universal standards that should be applied across all health services and critical enabler interventions provided to key populations include:

Standards on involving key populations

- ☐ The populations identified for targeted prevention services are included in needs assessment, planning, delivery, and evaluation of HIV prevention services and critical enabler interventions

Standards on users' rights

- ☐ Users are fully informed of the nature and content of the services as well as the risks and benefits to be expected
- ☐ Confidentiality and privacy of users is maintained at all times
- ☐ Guarantee of human rights; removal of legal barriers to access prevention, treatment and care
- ☐ Access to medical and legal assistance for key populations who experience sexual coercion or violence

Standards on providing entire package of services to key populations

- ☐ Ensure awareness and easy access to all services in the package
- ☐ Ensure protocols corresponding to each service in the package are updated periodically, disseminated to and followed at all service delivery levels

Standards on staffing

- ☐ Staff has regular supervision by senior staff to maintain quality of service delivery
- ☐ Training and sensitization of health-care providers to avoid discriminating key populations

Standards on availability and accessibility

- ☐ Services are available irrespective of age, ethnicity, sexual identity, citizenship, religion, employment status, health insurance status, substance use status of all potential users
- ☐ Services are easily accessible with regard to location, travelling time, cost and transportation
- ☐ Services are equitable and non-discriminatory
- ☐ Availability of safe virtual or physical spaces (for example telephone hotlines, or drop-in centres, respectively) for key populations to seek information and referrals for care and support
- ☐ Communication plan to make community aware of services in place

<u>For all services **FIVE *A's*** approach:</u>

-Adherence to national standards
-Availability of service
-Accessibility of service
-Acceptability of service
-Attitudes of service delivery providers towards users are positive

Also while providing services:
☐ System that ensures no stockouts
☐ Unique Identifier Code or other system to count number of unique users versus number of contacts
☐ Established referral system including a follow-up mechanism
☐ Provide targeted education and risk reduction
☐ Conduct risk assessment of HIV risk behaviours
☐ Provide condoms and condom-compatible lubricants for key populations while providing any other HIV prevention services

Quality Check list by Service:

Provision of condoms and condom-compatible (such as most water-based lubricants) lubricants

☐ Condoms are consistently available within a country
☐ Condoms are available to consumers at the right time, place and price
☐ All condoms are of reliable quality by the time they reach the consumer
☐ The condom is provided in a respectful manner, with adequate information on how to use the condom
☐ Condom-compatible lubricants (such as most water-based lubricants) are provided at the same time with a condom
☐ Community is aware of condom distribution points
(Drawn from: UNFPA, WHO, PATH (2005). Condom programming for HIV prevention: a manual for service providers. UNFPA, New York, USA)

Prevention and treatment of sexually transmitted infections (STIs)

☐ People diagnosed with STI receive appropriate treatment
☐ The STI case management guidelines delivered with the quality specified in the national guidelines
☐ The national STI management guidelines periodically reviewed at the national level to ensure their continued correspondence to the latest treatment methods
☐ Counselling services provided when people come to receive STI treatment
☐ Accepting attitudes (not stigmatizing) among people providing STI care
☐ Population participates in provision of services
☐ Community is aware of STI diagnostic and treatment services
☐ Adherence to treatment is ensured

Targeted education and risk reduction for key populations and their sexual partners

Prevention services and materials provided to key populations are:
- ☐ Culturally sensitive and competent
- ☐ Appropriate to the age, education level, language and other needs of consumers
- ☐ Accurate and up-to-date
- ☐ In the case of materials, in formats which are most appropriate for reaching populations served
- ☐ Provided by key populations
- ☐ Available and advertised for key populations

Outreach workers possess the following attributes:
- ☐ Experience working with and the ability to speak the same language as the target population(s)

- ☐ Possession of knowledge about available resources and the ability to refer consumers to those resources
- ☐ The capacity to maintain appropriate documentation
- ☐ Possession of knowledge about issues related to safety, consumer engagement, ethics, and professionalism

☐ Each Outreach Worker receives appropriate supervision and oversight

☐ Each Provider delivers Outreach Services that access at-risk individuals in settings where members of the target population are likely to be located and at times when members of the target population are likely to be present

☐ Each Provider delivers Outreach based on sound prevention theory that is appropriate to their target population and outcome objectives. Outreach services strive to help consumers develop skills and motivation to adopt and maintain safer behaviours over time

☐ Interventions Delivered to Groups consist of sessions with a maximum of 15 participants that build on each other and that include skill-building components

(The education and risk reduction standards are drawn from: Standards of HIV/AIDS Care & Services and HIV/AIDS Prevention & Education, Pennsylvania Department of Health, Division of HIV/AIDS http://www.aidsnetpa.org/Documents/Subgrantee/prevention%20standards.pdf)

HIV Testing and Counselling

Necessary information prior to testing

"Prior to administering an HIV test, providers should explain:

☐ the rationale for testing, the type of test to be used, and the meaning of a positive/negative result;

☐ that if managed with antiretroviral therapy (ART) and quality clinical care, HIV infection may be controlled as a chronic condition;

☐ that the test result is confidential and that disclosure of a positive result is needed to enrol in treatment;

☐ that users are encouraged to ask questions regarding the test process; and

☐ that users may opt out of testing without repercussion to other care services."

Source: Pan American Health Organization (2010). Blueprint for the Provision of Comprehensive Care to Men Who Have Sex with Men (MSM) in Latin America and the Caribbean. Pan American Health Organization, Washington, D.C.:

<u>Minimum standards</u>

The minimum acceptable standards for approaches to HIV testing and counselling require that all models of service delivery respect the following principles.

- ☐ HIV testing and counselling should be voluntary
- ☐ Individuals should have sufficient information, understanding and freedom of choice to be able to give informed consent to testing
- ☐ Pre-test information (for provider-initiated testing) and pre-test counselling (for user-initiated testing) are fundamental to informed consent to testing

☐ There should be appropriate post-test information, counselling and/or referral
☐ There should be consistent commitment and ethical support to encourage partner participation and disclosure to significant others
☐ Persons whose test results are positive should receive counselling and referral to care, support and treatment, where available
☐ HIV test results and counselling records should be treated confidentially and only those health-care workers with a direct role in the management of patients should have access to this information
☐ Persons whose test results are negative should receive counselling to enable them to remain free of HIV
☐ HIV Testing and Counselling provided in accordance with the pre-determined national protocol
☐ The counsellors deliver the pre-determined protocol
☐ The counsellors provide users with opportunities for questions
☐ Waiting time to receive the test results is not long from the users' point of view
☐ Population participates in provision of HIV testing and counselling
☐ Patients are linked to ART or other services as needed
☐ Population knows where to go for HIV testing and counselling services

(more information on strategies to improve user return rated for receiving HIV test results: http://www.michigan.gov/documents/mdch/FTR.Strat.May.07.FINAL_197486_7.pdf)

Antiretroviral therapy (ART)

☐ Being a member of a key population does not exclude a person from accessing ART services
☐ Population participates in provision of ART services
☐ Patients are linked to complementary health and psychological services as needed
☐ Population knows ART services exist and how to access them

The quality standards for ART are just a few of many validated standards for ART services. See http://www.who.int/hiv/topics/treatment/technical/en/index.html for WHO recommendations regarding ART delivery.

Health care providers should:

☐ learn how to listen to patients more openly and without judgment
☐ become better educated about current recommendations for the care of key populations .

In health care facility:

☐ Service signage, photographs, and other visual elements are welcoming and key populations inclusive
☐ Protocol for the collection of personal information allows discretion and does not require disclosure of sensitive personal information
☐ Clinical services do not focus exclusively on sexual behaviour risk factors but provide opportunities for counselling and psychological assessment and care
☐ The environment in the clinic allows users to feel safe, accepted, and valued

☐ The health care facility is safe, clean, inviting, and appropriately designed and equipped to care for patients. It is located in a place that is easily reached by the target population, whether urban, semi-urban or rural. It is on or near public transportation lines and has adequate parking. Access to the facility is well lit, well maintained, and users are required to wait in, or pass through isolated or unsafe areas to reach the clinic. The entry to the facility is secure and allows for a locked door, a security guard, and/or a double-door entry, as appropriate.

Source: Pan American Health Organization (2010). Blueprint for the Provision of Comprehensive Care to Men Who Have Sex with Men (MSM) in Latin America and the Caribbean. Pan American Health Organization, Washington, D.C.:

Methods to improve quality of programme management

- Make use of improvements in data collection technology
- Use process evaluation results to improve programme performance
- Staff training
- Improve staff supervision
- Minimize start turnover
- PDCA (plan-do-check-act) cycle

M&E System Quality Check list

The importance of creating, implementing and strengthening a unified and coherent M&E system at the country level cannot be overemphasized. A strong unified M&E system ensures that: 1) relevant, timely and accurate data are made available to national programme leaders and managers at each level of the programme and health care system; 2) selected quality data can be reported to national leaders; and 3) the national programme is able to meet donor and international reporting requirements under a unified global effort to contain the HIV epidemic (Global Fund.)

☐ Reporting forms are available at all levels
☐ Programme data are collected and submitted for reporting with the established frequency
☐ Datasets are maintained electronically and appropriately safeguarded
☐ Standardized Recording and Reporting Form at service delivery level
☐ Clear Indicator Definition
☐ Timely feedback of indicators and reports to service delivery providers
☐ System that facilitates an "evidence-informed approach" to decision making
☐ Adherence to the principles of the Three Ones (see below. Source: UNAIDS (2004). "Three Ones" key principles: "Coordination of National Responses to HIV/AIDS" Guiding principles for national authorities and their partners. Geneva. http://data.unaids.org/una-docs/three-ones_keyprinciples_en.pdf)

> -***One*** agreed HIV/AIDS *action framework* that provides the basis for coordinating the work of all partners;
> -***One*** national AIDS *coordinating authority*, with a broad-based multi-sector mandate; and
> -***One*** agreed-upon country-level *monitoring and evaluation system.*

TOOL 9 Comprehensive Encounter Form

A DATE AND LOCATION OF ENCOUNTER **Encounter #:_____**

A1 Type of Location 1 Drop-in centre 2 STI services provider 3. Other provider (specify _____)	**A3 Today's Date** Day ____/ Month ____/ Year _____ **A4 Service delivery provider** (e.g. NGO) number
A2 Sub-national area number	**A5 ID number of individual providing service:**

B UNIQUE IDENTIFIER CODE AND DEMOGRAPHIC INFORMATION

B1 Unique Identifier Code	**B5** Gender: 1 M 2 F 3TG-MTF 4TG-FTM
B2 First EVER visit to site? 1 YES 2 NO	**B6** Birth Date Day ____/ Month ____/ Year _____
B3 First visit since January 1: 1 YES 2 NO	**B7** Primary Language:
B4 Other Service Providers Visited in Past 30 Days:	**B8** When Moved to This Area: Month:___Year_____

C ASSESSMENT

1 Engaged in Sex Work in Past 30 days	2 Paid Money or Goods for Sex in Past 30 days	3 Number of Partners in Past 7 days		4 Last time, Used Condom?	5 Times Unprotected Receptive Anal Intercourse Past 30 Days	6 User Stage for Condom Use (Use codes below)	7 Experienced Violence in Past 12 Months?	
							Physical	Emotional
Y N	Y N	Male:		Y N			Y N	Y N
		Female:		Y N				

User Stage for Condom Use

1 Did not consider 2 Thought about it 3 Tried First Time 4 Inconsistent Use 5 Consistent Use

D HIV TESTING AND COUNSELLING

D1 HIV Status?	D2 Counselled?	D3 Tested?	D4 Results provided?	D5 Test result?	D6 ART?
1 Positive 2 Negative 3 Unknown/Refused	1 Yes 2 No	1 Yes 2 No	1 Yes 2 No	1 Positive 2 Negative	1 Provided here 2 Provided elsewhere 3 Referred 4 Not Eligible

E SUMMARY OF SERVICES PROVIDED or REFERRED DURING THIS VISIT (Circle all that apply)

		A	B	C	D	E	F	G	H	I
		Assessed	Counselled	Tested	Vaccination Completed	Treatment Started	Treatment Ongoing	Treatment Completed	Referral Made	Referral Outstanding
	Health Services									
1	STI Services	**1**	**2**	**3**		**5**	**6**	**7**	**8**	**9**
2	Hepatitis B Services	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
3	Hepatitis C Services	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
4	TB Services	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
5	Primary health care	**1**	**2**	**3**		**5**	**6**	**7**	**8**	**9**
6	Mental health services	**1**	**2**	**3**		**5**	**6**	**7**	**8**	**9**
7	Drug/ Alcohol addiction	**1**	**2**			**5**	**6**	**7**	**8**	**9**
	Commodities Provided	**Yes**	**No**							
8	Condoms	**1**	**2**	**Number:**						
9	Lubricants	**1**	**2**	**Number:**						
10	IEC Materials	**1**	**2**	**Number:**						
11	Needles/Syringes	**1**	**2**	**Number:**						

Instructions for the Comprehensive Encounter Form

Ref code	Indicator	Sub-indicators	Definition
A DATE AND LOCATION OF ENCOUNTER			
	Encounter #		Each encounter with a man who has sex with men, sex worker or transgender person should have a unique encounter number. This will be used to track number of encounters total and number of encounters per man who has sex with other men, sex worker or transgender person.
A1	**Type of Location:**		
		1 Drop-in centre	
		2 STI Services provider	
		3 Other provider (specify_____	A site that does not fall into one of the above categories
A2	**Sub-national area number**		Each sub-national area should have an associated code number. Enter it here.
A3	**Today's Date**	Day / Month / Year	dd/mm/yyyy
A4	**Service delivery provider**		The service delivery provider is the NGO or other organization that is responsible for the site's functioning. Each service delivery provider should have an associated code number. Enter it in the box.
A5	**ID number of individual providing service:**		Each outreach coordinator, peer educator or clinician should have an ID number. Enter it in the box.
B UNIQUE IDENTIFIER CODE AND DEMOGRAPHIC INFORMATION			
B1	**Unique Identifier Code**		An example of the unique identifier code developed by Population Services International is a simple 7-digit code composed of: • First two letters of mother's first name • First two letters of father's first name • Gender (single letter M/F or number) • Year of birth (last two digits).

B2	**First EVER visit to site?**	1 YES 2 NO	Record if the person has ever visited the site in which you are filling out the encounter form
B3	**First visit since January 1**	1 YES 2 NO	Record if the person has been to the site in which you are filling out the encounter form this year
B4	**Other Service Providers Visited in the Past 30 days**		Write in the code or standardized name of each facility that the person has visited in the last month. Keep a list of facility reference codes handy so that you can fill this in easily during the encounter.
B5	**Gender**		
		1 M	Male
		2 F	Female
		3TG-MTF	Transgendered – Male to Female
		4TG-FTM	Transgendered – Female to Male
B6	**Birth Date**	Day / Month / Year	dd/mm/yyyy
B7	**Primary Language**		Write in the primary language
B8	**When Moved to This Area**	Month/ Year	The month and year of when the person moved to the catchment area of the site
C ASSESSMENT			
The indicators in this section aim to gather information about the person's receipt of money for sex, frequency of sexual acts, number of partners, and behaviours and attitudes regarding condom use. --- Ask if the person has engaged in a sexual act in the last 30 days. If the answer is 'yes', proceed to questions C1-C6. If the answer is 'no', move on to the next section of the Encounter Form.			
C1	**Sex for Money or Goods in Past 30 days**		If the person has engaged in a sexual act for payment in the past 30 days, circle Y. If the person has not engaged in a sexual act for payment in the last 30 days, circle N. If neither Y nor N is circled, it means that the person refused to answer, does not know, or the data is missing.
C2	**Paid Money or Goods for Sex in Past 30 days**		If the person has paid for sex in the past 30 days, circle Y. If the person has not paid for sex in the last 30 days, circle N. If neither Y nor N is circled, it means that the person refused to answer, does not know, or the data is missing.
C3	**Number of Partners in Past 7 Days**	**Male** **Female**	Write in the number of male and/or female sexual partners the person has had in the past 7 days. For sex workers, write in the number of male and/or female clients the person has had in the past 30 days. If the person has not had any sexual partners/clients in the last 7 days, input 0 and skip C4, C5, and C6.

C4	**Last time, Used Condom?**			Circle Y if the person used a condom the last time he engaged in a sexual act. Circle N if he did not use a condom the last time he engaged in a sexual act. If neither Y nor N is circled, it means that the person refused to answer, does not know, or the data is missing.
C5	**Times Unprotected Receptive Anal Intercourse in Past 30 Days**			Write in the number of times the person has had unprotected receptive anal intercourse in the past 30 days. You may change the wording of this question to use more colloquial terms that are culturally relevant.
C6	**User Stage for Condom Use in Past 7 Days**			If the person has engaged in one or more sexual acts in the past 7 days, assess the person's attitudes and behaviours regarding condom use. Use the following codes to indicate stage.
		1	Did not consider	Input 1 in the box if the person has not thought about using condoms in the past 7 days.
		2	Thought about it	Input 2 in the box if the person has seriously contemplated using condoms within the past 7 days.
		3	Tried First Time	Input 3 if the person has tried to use or successfully used a condom for the first time in the past 7 days.
		4	Inconsistent Use	Input 4 if the person has used condoms in the past 7 days, but has not used them for *all* sexual acts in the past 7 days.
		5	Consistent Use	Input 5 if the person used condoms for *all* sexual acts in the past 7 days.
C7	**Experienced Violence in Past 12 Months**	**Physical**		Ask the person if he has experienced physical violence or emotional abuse in the past 12 months. Physical violence includes sexual assault. Emotional abuse includes verbal abuse, harassment, and neglect.
		Emotional		
D HIV TESTING AND COUNSELLING (circle response)				
If you have a confidential way to inquire about and record the person's HIV status, proceed to fill out this section. However, if there is a possibility that confidentiality could be compromised (e.g. unsecured database, someone might overhear the conversation, etc), then DO NOT ask the questions in section F.				
D1	**HIV Status?**			
		1 Positive		Circle Positive if the person reports that he/she has received results indicating that he/she is HIV positive. Skip D3, D4, and D5.
		2 Negative		Circle Negative if the person has received results *in the last 12 months* indicating that he is HIV

			negative.
		3 Unknown/Refused	Circle Unknown/Refused if the person does not know his status, refused to answer, or received a negative test result more than 12 months ago.
D2	**Counselled?**	1 Yes 2 No	Indicate if the person was counselled about HIV transmission prevention, HIV testing and treatment. All people should be counselled about these topics during an encounter.
D3	**Tested?**	1 Yes 2 No	Indicate whether the person was tested for HIV during this encounter
D4	**Results provided?**	1 Yes 2 No	Indicate whether results were provided to the person during this encounter. This indicator can be used to record the results of an HIV test done today or an HIV
D5	**Test result?**	1 Positive 2 Negative	If the person received his results, indicate if the result was positive or negative
D6	**ART?**		
		1 Provided here	
		2 Provided elsewhere	
		3 Referred	
		4 Not Eligible	
E SUMMARY OF SERVICES PROVIDED or REFERRED DURING THIS VISIT (Circle all that apply)			
	Definitions of service provision codes		The codes listed below are suggested codes that cover various outcomes of an encounter with a member of key population. The form can be easily modified to accommodate other or fewer outcomes. For example, if your site captures more specific information about treatment status, you may want to modify the form to include various phases of treatment specific to each condition. For those services that your site does not provide, a referral should be made.
1		**Assessed**	Circle 1 if the person was assessed for the need or usefulness of each service
2		**Counselled**	Circle 2 if the person was counselled about the service
3		**Tested**	Circle 3 if the person was tested (when relevant)
4		**Vaccination Completed**	For Hepatitis B, STI, and TB services categories, indicate if the person has completed vaccination by circling 5
Treatment includes antiretroviral drugs, mental health counselling and related pharmacotherapy, drugs to treat Hepatitis B, anti-TB agents, etc.			
5		**Treatment Started**	Circle 6 if the person has started treatment
6		**Treatment Ongoing**	Circle 7 if the person is currently on treatment
7		**Treatment Completed**	Circle 8 if the person has completed treatment

8		**Referral Made**	Circle 8 if the person was referred for the service because the service is not provided at this site
9		**Referral Outstanding**	Circle 9 if the person was previously referred for a service, but has not yet gone to the referral site
	Definitions of services		The following is a list of services that ought to be provided to men who have sex with men, sex workers and transgender people. You may modify this list based on national guidelines for the complete package of services for men who have sex with men, sex workers and transgender people.
E1		**STI Services**	Refer to national guidelines for the effective management of STIs. Can include: case management of STI, syndromic management of STI, assessment for STI risk factors, STI treatment, etc.
E2		**Hepatitis B Services**	Refer to national guidelines Can include: immunization, education about transmission and vaccination schemes, screening of blood and blood products, etc.
E3		**Hepatitis C Services**	Refer to national guidelines Can include: Diagnosis, treatment, education, etc.
E4		**TB Services**	All services should have a case-finding protocol for TB and HIV so that personnel are aware of the symptoms of TB and HIV and can ensure that drug users have access to appropriate TB and HIV testing and counselling, preferably at the service where they initially present.
E5		**Primary health care**	As defined by national guidelines
E6		**Mental health services**	Any non-pharmacological intervention carried out in a therapeutic context at an individual, family or group level. Psychosocial interventions may include structured, professionally administered interventions (e.g. cognitive behaviour therapy or insight oriented psychotherapy) or non-professional interventions (e.g. self-help groups and non-pharmacological interventions from traditional healers).
E7		**Drug/ Alcohol addiction**	Refer to national guidelines
	Commodities Provided	This section is used to record commodities provided to the person *during this visit.* If 'Yes' is circled for any of the commodities, be sure to write the number of commodities provided in the appropriate cells.	
E8		**Condoms**	If no condoms were provided to the person during this encounter, circle 2 for 'No' and

			move on to the next line. If condoms were provided to the person today, circle 1 for 'Yes' and write in the number that were provided.
E9		**Condom-compatible lubricants**	If no condom-compatible lubricants were provided to the person during this encounter, circle 2 for 'No' and move on to the next line. If lubricants were provided to the person today, circle 1 for 'Yes' and write in the number that were provided.
E10		**IEC Materials**	IEC materials consist of pamphlets, flyers, or other information, education and communication materials. If no IEC materials were provided to the person during this encounter, circle 2 for 'No'. If IEC materials were provided to the person today, circle 1 for 'Yes' and write in the number that were provided.
E11		**Needles/ Syringes**	If no needles or syringes were provided to the person during this encounter, circle 2 for 'No' and move on to the next line. If needles or syringes were provided to the person today, circle 1 for 'Yes' and write in the number that were provided.

The comprehensive encounter form included here is only an example of what can be put into practice in a service delivery setting. Adapt this form to your needs

TOOL 10 Short Encounter Form

Service Delivery Provider Number: ________________ Type of Site: ___________ Sub-National Area: __________________________

Unique Identification Code (UIC)				Date of encounter mm/dd/yy	Contact with Service Provider		Number Provided			Number of Partners in last 7 days		Last time sex – used condom?	Times sex in the past 7 days	Of those times, how many with condom?	Test and Treatment Provided (insert code in each box)									
															HIV		*HEPB*		*HEPC*		*STI*		*TB*	
Gender	Date of Birth mm/dd/yy	First 2 letters of mother's name	First 2 letters of father's name		First ever?	First since Jan1?	Lubricants	Condoms	IEC	Male	Female				Test	Treatment	Test	Treatment	Test	Treatment	Test	Treatment	Test	Treatment
M F TG-MTF TG-FTM	___/___/___	___	___	___/___/___	Yes No	Yes No	___	___	___	___	___	Yes No	___	___										
M F TG-MTF TG-FTM	___/___/___	___	___	___/___/___	Yes No	Yes No	___	___	___	___	___	Yes No	___	___										
M F TG-MTF TG-FTM	___/___/___	___	___	___/___/___	Yes No	Yes No	___	___	___	___	___	Yes No	___	___										

Codes		
Gender codes:	**Test codes:**	**Treatment codes:**
M= Male F=Female TG-MTF = Transgendered – male to female TG-FTM =Transgendered -- female to male	1 =Test offered and accepted 2 = Test offered and refused 3= Test not applicable because user already tested positive 4= Test not offered	1 = Treatment provided 2= Referred for Treatment 3= Treatment not provided and user not referred

Instructions for the Short Encounter Form

Ref code Indicator	Sub-indicators	Definition
Unique Identification code		
An example of the unique identifier code developed by Population Services International is a simple 7-digit code composed of: • First two letters of mother's first name • First two letters of father's first name • Gender • Year of birth (last two digits).		
Gender		
	M	Male
	F	Female
	TG-MTF	Transgendered – male to female
	TG-FTM	Transgendered – female to male
Date of Birth		Input two digits for month, two digits for day, and two digits for year
First 2 letters of mother's name		Input first two letters of mother's name
First 2 letters of father's name		Input first two letters of father's name
Date of encounter		Input two digits for month, two digits for day, and two digits for year
Contact with Service Provider		
	First ever?	Circle Yes if this is the person's first visit to this site. Circle No if the person has visited the site before
	First since Jan 1?	Circle Yes if this is the person's first visit since the beginning of the year. Circle No if the person has visited the site at least once already this year
Number Provided		
	Condom-	Input the number of condom-compatible lubricants provided during this encounter. If no lubricants

		compatible lubricants	were provided, input 0.
		Condoms	Input the number of condoms provided during this encounter. If no condoms were provided, input 0.
		IEC	IEC materials consist of pamphlets, flyers, or other information, education and communication materials. If no IEC materials were provided to the person during this encounter, input 0. If IEC materials were provided to the person today, input the number of materials provided
Number of Partners in Past 7 Days		Male	Write in the number of male and/or female sexual partners the person has had in the past 7 days. If the person has not had any sexual partners in the last 7 days, input 0 and skip other questions related to sexual acts
		Female	
Last time sex -used condom?			Circle Yes if the person used a condom the last time he engaged in a sexual act. Circle No if he did not use a condom the last time he engaged in a sexual act. If neither Y nor N is circled, it means that the person refused to answer, does not know, or the data is missing.
Times Sex in Past 7 days			Write in the number of times the person has engaged in a sexual act in the past 7 days. If the answer is 0, skip the next question.
Of those times, how many with condom?			If the person engaged in a sexual act in the last 7 days, ask how many times a condom was used. Write the number in the box.
Test and Treatment Provided (insert code in each box)			
Test codes	1	Test offered and accepted	Input 1 in the Test box if a test was offered to the person and he agreed to be tested.
	2	Test offered and refused	Input 2 in the Test box if a test was offered to the person and he refused to be tested.
	3	Test not applicable because user already tested positive	Input 3 in the Test box if a test was not applicable because the person is positive for the outcome in question. For example, if the person is HIV positive, he will not be offered an HIV test unless he wants to be tested for verification purposes.
	4	Test not offered	Input 4 in the Test box if the test was not offered. Reasons for this include test stockouts, person who does the testing or the counselling is unavailable, etc.
Treatment codes	1	Treatment provided	Input 1 in the Treatment box if treatment to the person during this encounter.
	2	Referred for treatment	Input 2 in the Treatment box if the person was referred to another site for treatment.
	3	Treatment not provided and user not referred	Input 3 if the person was not given treatment and was not referred for treatment. Use this code if the site normally provides treatment to users, but currently has a stockout of medicine. Also use this code if the person is not eligible for treatment (e.g. person's CD4 count has not yet reached the level at which treatment is recommended).

TOOL 11. Sample survey questions to obtain data for measures. Example for men who have sex with men

Item Number	Item	Response Code	Rationale	Measure Number
Survey information and Demographics				
1	Date of survey	(dd/mm/yyyy)	Records date of survey	
2	Interviewer identity	Code for interviewer	Records person who interviewed respondent	
3	Age	Age in years	Used in all indicators to categorize specific age groups	
4	Education	Number of years of education completed	Used in all indicators to categorize specific education groups	
5	Gender of respondent	M, F, TG-MTF, TG-FTM	Used in all indicators to categorize gender	
6	Residence of respondent	Sub-national area where respondent lives	Used in all indicators to categorize specific geographic areas	
7*	UIC of man who has sex with men	UIC	Used by all services/programmes to track users	
HIV test results if testing included				
8	Are you willing to be tested?	Yes No If Yes, test results: -Positive -Negative -Indetermi-nate	Used to estimate HIV prevalence among men who have sex with men	G1
Sexual behaviours				
9	The last time you had sex with a man, was a condom used?	Yes No Don't remember	Used to determine percentage of protected acts at last sex with men	G2, 2.3
10	The last time you had sex with a man were you on top or bottom? (use culturally appropriate terminology)	Top Bottom	Used to determine risk of getting HIV infected	2.3
11	Have you had zero, one or more than one male sexual partner in the past 12 months?	Zero One More than one	Used to identify those in stable relationships	2.1, MoT manual: cell J14

Item Number	Item	Response Code	Rationale	Measure Number
12	Have you had zero, one or more than one female sexual partner in the past 12 months?	Zero One More than one	Used to identify bisexual men	2.5, MoT manual: cell J15
13	(if one or more female partners) The last time you had sex with a woman, was a condom used?	Yes No Don't remember	Used to determine percentage of protected acts at last sex with women	
14	How many male partners did you have sex with in the past 4 weeks?	Number of times reported (0-maximum)	Can be used to determine number of sex partners in the past 12 months	MoT manual: cell J14
15	How many new male partners did you have sex with in the past 4 weeks?	Number of new male partners reported	Can be used to determine total number of sex partners in the past 12 months	2.1
16	Have you had symptoms (pain on urination, ulcers/sores, unusual discharge) of an STI or suspected you had an STI in the past 12 months?	Yes No	Used to determine percentage of men who have sex with men reporting symptoms of STIs in the past 12 months	2.14, MoT manual: cell I14
Useful Questions				
17	How old were you when you first had sex?	Age in years	Used to track trends at population level	
18	How many times did you have sex with male partners in the past 4 weeks?	Number of times reported	Used to determine frequency of sex acts	MoT manual: cell L14
19	How many times did you use a condom when you had sex with male partners in the past 4 weeks?	Number of times reported (0-maximum)	Used to determine percentage of protected sex acts	MoT manual: cell L14
21	Do you know of a place where a person can get condoms?	Yes No	Used to determine availability of condoms	3.4
22	Do you know of a place where a person can get lubricants?	Yes No	Used to determine availability of condom-compatible lubricants	3.5

Item Number	Item	Response Code	Rationale	Measure Number
23	Where is that? Any other place?	List options A B C D other	Used to determine availability of condoms and condom-compatible lubricants	3.4, 3.5
24	Can you get a condom if you need it?	Yes No	Used to determine availability and accessibility of condoms	3.3
25	Can you get a lubricant if you need it?	Yes No	Used to determine availability and accessibility of condom-compatible lubricants	
26	In the last 12 months, did you get paid in exchange for having sexual intercourse?	Yes No	Used to determine percent of overlapping populations	2.12
27	Did you inject drugs in the last 12 months?	Yes No	Used to determine percent of overlapping populations	2.5
28	If YES, did you use a clean needle the last time you injected?	Yes No Don't remember	Used to determine percentage of men who have sex with men who use drugs reporting the use of sterile injecting equipment the last time they injected	2.6
29	The last time you had sexual intercourse, did you or your partner drink alcohol?	Yes No	Used to determine alcohol use at last sex	2.13
30	Some men are circumcised. Are you circumcised?	Yes No Don't know	Used to determine percentage of population circumcised	2.4
31	Do you know where you can go if you wish to receive an HIV test?	Yes No	Used to determine percent who know where to get HIV test	3.7
32	Have you ever been tested for HIV?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7
33	If yes, have you been tested in the past 12 months?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7
34	I don't want to know the results, but did you receive the results of that test?	Yes No	Used to determine percentage of men who have sex with men who know their HIV status	3.7

Item Number	Item	Response Code	Rationale	Measure Number
35	Have you been screened for STI in the past 12 months?	Yes No	Used to determine percentage of men who have sex screened for STIs	3.6
36	Have you been diagnosed with STI in the past 12 months?	Yes No	Used to determine percentage of men who have sex diagnosed with STI	6.4
37	If Yes, have you received treatment for STI in the past 12 months?	Yes No	To assess quality	6.4
38.1	Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?	Yes No		G3
38.2	Can using condoms reduce the risk of HIV transmission?	Yes No		G3
38.3	Can a healthy-looking person have HIV?	Yes No		G3
38.4	Can a person get HIV from mosquito bites?	Yes No		G3
38.5	Can a person get HIV by sharing a meal with someone who is infected?	Yes No		G3
39	Have you been denied involvement in social events, religious services, or community events in the last 12 months because you are a man who has sex with men ?		To measure stigma towards men who have sex with men	2.9-Experiencing stigma
40.1	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	Yes No Don't know	To measure HIV stigma	
40.2	If a member of your family got infected with HIV, would you want it to remain a secret or not?	Yes No Don't know	To measure HIV stigma	
40.3	If a member of your family became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	Yes No Don't know	To measure HIV stigma	

Item Number	Item	Response Code	Rationale	Measure Number
40.4	In your opinion, if a female teacher has HIV but is not sick, should she be allowed to continue teaching in the school?	Should be allowed Should not be allowed Don't know	To measure HIV stigma	
40.5	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have HIV or has HIV?	Yes No Don't know	To measure HIV stigma	
40.6	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she is suspected to have HIV or has HIV?	Yes No	To measure HIV stigma	
40.7	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she is suspected to have HIV or has HIV?	Yes No	To measure HIV stigma	
40.8	Do you agree or disagree with the following statement: People living with HIV should be ashamed of themselves.	Agree Disagree Don't know	To measure HIV stigma	
40.9	Do you agree or disagree with the following statement: People living with HIV should be blamed for bringing the disease into the community.	Agree Disagree Don't know	To measure HIV stigma	
41	Have you been beaten in the past 12 months?	Yes No		2.10
42	In the past 12 months, have you been called names, or verbally assaulted?	Yes No		2.11
43	In the past 12 months, have you been in jail, prison, rehabilitation centre, etc?	Yes No		
44	In the past 12 months, have you been forced to have sex?	Yes No		

Item Number	Item	Response Code	Rationale	Measure Number
45	In the last twelve months, have you been given condoms (e.g. through an outreach service, drop-in centre or sexual health clinic)?	Yes No	Used as one of two questions to determine percentage of people reached with HIV prevention programmes	3.4
46	In the last twelve months, have you received any specific information on prevention and risk reduction strategies (IEC)?	Yes No	To determine percentage of people receiving IEC	3.8
47	In the last twelve months, have you visited a safe space for men who have sex with men in your community?	Yes No	To determine percentage of people visiting a safe physical space	

(*where applicable)

Note: Survey questions should be based on the results from the rapid assessment (Tool 6, pg. 155). Refer to indicator registry web site (www.indicatorregistry.org) to identify other potential indicators related to accessing health and social services, employment, human rights violations such as forced testing, breach of confidentiality in the context of HIV testing.

Abbreviations:

MSM – Men who have Sex with Men

MOT- The Modes of Transmission

References:

1-Global UNGASS Indicator (2009). Monitoring the Declaration of Commitment on HIV/AIDS : guidelines on construction of core indicators : 2010 reporting. UNAIDS, Geneva

TOOL 12 Target setting worksheet for quality and output measures at the service delivery level

NOTE: Not all possible measures are included here; additional measures may be added as appropriate. The measures are numbered as per the list of measures in Tools 22 (pg. 193), 22 (pg. 202) and including the data source and full references.

	Measure	Baseline Estimate or No/Yes	Target	Follow-Up Estimate	Are Follow-Up Target Met? No Yes
Quality measures					
6.2	Percentage of HIV testing and counselling sites that conduct outreach to men who have sex with men	n/n =%	%	n/n =%	0 1
6.3	Percentage of providers testing and treating for STIs who have been trained to provide STI services to men who have sex with men	n/n =%	%	n/n =%	0 1
6.4	Percentage of men who have sex with men diagnosed with STI who received treatment	n/n =%	%	n/n =%	0 1
6.5	Whether men who have sex with men participate in quality audits	N/Y	Y	N/Y	0 1
6.6	Whether men who have sex with men participate in service delivery	N/Y	Y	N/Y	0 1
Output measures					
4.1	Number of unique medical providers receiving training on providing treatment to men who have sex with men	n	n	n	0 1
4.2	Number of men who have sex with men provided with condoms by HIV prevention programmes for men who have sex with men	n	n	n	0 1
4.3	Number of condoms distributed by HIV prevention programmes for men who have sex with men	n	n	n	0 1
4.4	Number of coordinated mass media campaigns, segmented by audience, that address high-risk sexual norms, reduce multiple and concurrent partnerships, reduce stigma towards men who have sex with men	n	n	n	0 1

TOOL 13. Output Form: Training log

This form can be used by service providers to monitor number of people trained.

Service location: _____
Service provider ID: _____
Name of the training:_____

ID	Name of student	Affiliation of student, if applicable	Date	Type of training	Training is completed (Yes/No)	Final exam is passed (Yes/No)
1						
2						

TOOL 14. Referral card and referral monitoring form

Referral card

Date referred:			
UIC	**Referred by (A4)**	**Referred to (code)**	**Service requested (E)**

Monthly monitoring form for referrals

Date referred	**UIC**	**Service requested (code from E):**
Referral results (check one):	□ Person never came to referral site □ Person came to referral site – doesn't need to return □ Person came to referral site – needs to return □ Person came –referred elsewhere	Date seen: _____ Date referred: _____

Instructions for referral card and referral monitoring form

Referral card		
This form is used to track a person who has been referred. The referred person should provide this card to the referral site upon arrival.		
UIC		Write in unique identifier code for referred person: See B1.
Referred by (A4)		Write in the service delivery provider code.
Referred to (code)		Write in the code for the site to which the person is referred.
Service requested (E)		Write in the code of the service requested from section E. For example, if the person is being referred for legal counselling, write "E17."
Monthly referral monitoring form		
This form is used report on the outcome of a referral on a monthly basis.		
Date referred		Write in the date when the person was referred to your site.
UIC		Write in unique identifier code for referred person: See B1.
Service requested (code from E):		Write in the code of the service requested from section E. For example, if the person has been referred for legal counselling, write "E17."
Referral results (check one):		Check one of the following options to record what happened to the person who was referred for a service.
Person never came to referral site		Check this box if the referred person never came to the site.
Person came to referral site – doesn't need to return	Date seen:	Check this box if the person came and received services. This box should be checked in a situation where the person only needed to come to the referral site one time. For example, if the person came for abscess care and prevention (E3), received treatment, and does not need to return – check this box. Additionally, write in the date the referred person was seen.
Person came to referral site – needs to return		Check this box if the person came and received services, but needs to return to complete the referral. For example, if the person was referred to the site for mental health counselling, it is likely that he/she will need to come back for subsequent sessions. In that case, check this box.
Person came –referred elsewhere	Date referred:	Check this box if the person came to the referral site, but the services he/she was referred for were not available at that time. Check this box if it was necessary to refer the person elsewhere so that he/she could get the services sought. Write in the date the person was referred.

Reference:http://www.searo.who.int/LinkFiles/Publications_Module_02_Treatment_&_Care_for_HIV_positive_IDUs.pdf

TOOL 15 Form for monitoring distribution of condoms

This form can be used by service providers to monitor programme outputs.
Location of the services: _____
Service provider ID: _____
Reported time period: _____

Unique identifier code of programme participant		Date	Number of condoms given		Information materials given (Yes/No)	Referrals for other services made (Yes/No), if yes, to what services
New	Repeat		Male	Female		

TOOL 16. Form for monitoring HIV testing and counselling interventions

This form can be used by service providers to monitor programme outputs.

Location of the services: _____
Service provider ID: _____
Reported time period: _____

Number	Unique identifier code of programme participant		Date of testing and counselling	Information materials given (Yes/No)	Condoms/ lubricants are given (Yes/No)			Referrals for other services made (Yes/No), if yes, to what services	A person came back to receive results (Yes/No)
	New	Repeat			Male	Female	Lubricants		
1									
2									
3									

TOOL 17. Form to calculate the number of people reached by outreach programmes

This form can be used by peer educators/outreach workers to monitor programme outputs.

Name and location of the service delivery point _____
Peer educator ID:__
Date: Week of _____
Instructions: Please enter information in each of the rows daily and submit the form to your supervisor by Monday of the following week.

Day of the week/services provided	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**	**Total**
Number of unique contacts made								
Number of people reached for the first time								
Number of IEC materials distributed								
Number of male condoms distributed								
Number of female condoms distributed								
Number of lubricants distributed								

Comments _____

TOOL 18. Form to monitor outputs across outreach workers

This form can be used by service providers to monitor programme outputs.

Name and location of service delivery point _____

Peer educator's code	Date: Week of_____	Number of contacts made	Weekly target	Number of people reached for the first time	Number of condoms distributed		Number IEC materials distributed
					Male	Female	

TOOL 19 Checklist for post-service user-centred approach for provision of condoms and condom-compatible lubricants

This form can be used by both non-programme staff members to conduct direct observations and by staff members to determine if all necessary events within one interaction have occurred

☐ User was welcomed in a friendly manner

☐ User was asked whether he needs any information on condoms and condom-compatible lubricants use

☐ User was asked if he was clear about the use of the condoms and condom-compatible lubricants

☐ User was encouraged to come back before he is out of condoms and condom-compatible lubricants

☐ User was encouraged to tell friends about this condoms and condom-compatible lubricants distribution service

☐ User was asked if he has any other questions or needs

☐ User was encouraged to fill in a user/participant feedback tool to improve quality of services

☐ Services were provided in a respectful, professional manner

Form from PATH, UNFPA WHO (2005). Condom Programming for HIV Prevention; A Manual For Service Providers,
http://www.unfpa.org/webdav/site/global/shared/documents/publications/2005/condom_prog.pdf

TOOL 20. Tool for participant feedback to assess distribution of condoms and condom-compatible lubricants

Are you satisfied with the services provided to you today? (Very satisfied, satisfied, not satisfied, very unsatisfied)

Do you feel that your needs for condoms and lubricants were met? (Yes, No)

How much in your opinion, was the staff attentive and responsive to your needs? (Very much, moderate, not at all)

How friendly was the staff to you today? (Very friendly, friendly, not friendly, not friendly at all)

If applicable, do you feel that all your questions on condoms and condom-compatible lubricants use were answered? (Yes, No)

Did you feel comfortable asking a staff member questions on condoms and lubricants use? (Very comfortable, comfortable, not comfortable, not comfortable at all)

Did you get the information, advice, or condoms that you came for today? If not, what didn't you get and why?

Were you able to talk about all of your concerns and ask questions? How well did the staff respond to your concerns and questions?

After talking to the staff here, how confident do you feel about your ability to use condoms? How confident do you feel about your ability to ask your partner to use condoms?

In your opinion, did you have enough privacy during your consultation? Do you believe that the information you shared about yourself will be kept confidential?

How well were you treated by the staff here?

How long did you wait to get counseling or buy condoms? Do you think the wait was reasonable?

Do you think the cost of condoms here is reasonable, or is it too expensive for you?

How convenient are the hours and the location of this facility for you? What times or locations would be more convenient?

How comfortable do you feel asking for/buying condoms at this facility? How comfortable do you feel asking for HIV/STI counselling here?

How satisfied do you feel with your visit today? What aspects of your visit make you feel dissatisfied?

How can we improve services here? Please make as many suggestions as possible.

From: PATH, UNFPA WHO (2005). Condom Programming for HIV Prevention; A Manual For Service Providers, http://www.unfpa.org/webdav/site/global/shared/documents/publications/2005/condom_prog.pdf

TOOL 21 User satisfaction survey for HIV testing and counselling

Please help us improve our services by taking a few minutes to answer this survey.

Do not put your name on this form.

For each question mark the one answer that best describes what you think.

Did the counselling help you? ☐ Helped a lot ☐ Helped some ☐ Did not help

Did you get helpful information? ☐ A lot of information ☐ A little information ☐ No information

How long did you wait to get counseling? Do you think the wait was reasonable? _____

_____

How convenient are the hours and the location of this facility for you? What times or locations would be more convenient? _____

_____

When you saw the counsellor . . .

Who talked the most?	☐ Me	☐ The counsellor	☐ We talked the same amount
Who listened the most?	☐ Me	☐ The counsellor	☐ We listened the same amount

For each of these mark only one: A lot, Some, or Not at all:	A lot	Some	Not at all
4. Did the counsellor answer your questions and concerns about HIV?	☐	☐	☐
5. Did the counsellor help you think about what you were doing that puts you at risk for getting HIV?	☐	☐	☐
6. Did the counsellor help you make a plan to protect yourself from HIV?	☐	☐	☐
7. Did the counsellor help you come up with small steps you can take to make your plan work?	☐	☐	☐

8. Did the counsellor tell you about other places you could go for help?	☐	☐	☐
For each of these mark only one: ***Yes, No, or I don't know:***	Y	No	Don't know
9. I have no risk of getting HIV.	☐	☐	☐
10. I am at risk of getting HIV.	☐	☐	☐
11. I want to reduce my risk of getting HIV.	☐	☐	☐
12. I know the ways to reduce my risk.	☐	☐	☐
13. I have a plan for how I will reduce my risk.	☐	☐	☐
14. I like my plan.	☐	☐	☐
15. I'm sure I can follow my plan.	☐	☐	☐

16. In your plan to reduce your risk, who came up with what you will do? ☐ I did ☐ The counsellor

17. How much did the counsellor help you? ☐ More than enough ☐ Enough ☐ Not enough

18. How much did you help the counsellor? ☐ More than enough ☐ Enough ☐ Not enough

19. How much did you tell the counsellor about your sex life and use of drugs?

☐ All of it ☐ Some of it ☐ None of it

20. In your opinion, did you have enough privacy during your consultation? Do you believe that the information you shared about yourself will be kept confidential?

_____

What else would you like to tell us about your experience with the counsellor_____

_____

_____

Thank You!

Source for the HIV Test Counselling Client Satisfaction Survey: www.doh.wa.gov *website (http://www.doh.wa.gov/concon/FmsReptTitlePage/titlepage.htm).*

TOOL 22. Worksheet to Select Measures at National, Sub-National and Service Delivery Levels to Monitor and Evaluate Programs for Men who Have Sex with Men and Transgender People

The worksheet below can be used to select global, national, sub-national and service delivery measures for monitoring and evaluating HIV prevention programs for men who have sex with men and for programs for transgender people.

Some countries will choose to estimate measures in selected sub-national areas or cities and base national level measures on data from those sub-national areas. Such national measures must be interpreted with care because they do not include all areas of the country.

In general, measures should be monitored for important sub-groups such as bisexual men, men who have sex with men only, men who have sex with men and inject drugs, adolescent men who have sex with men, and men who have sex with men or women in exchange for money. The list below includes measures relevant to most of these sub-groups.

The worksheet below includes indicators recommended at the global level for monitoring the 2011 Political Declaration on HIV/AIDS (GARPR), Universal Access reporting and presents other potentially useful measures to monitor progress in implementing programmes based on programme implementation pathways. Consistent monitoring of these measures can identify where there are bottlenecks and where additional attention is needed. Programme implementation pathways should be developed in collaboration with implementing partners including members of the key populations. These pathways will differ from country to country and consequently the measures may also vary. The highest priority is to monitor measures at the sub-national level in areas most in need of HIV prevention programs for men who have sex with men and transgender people, based on the size of the population and an understanding of the local epidemic.

Usually national-level measures are aggregated measures based on sub-national estimates from bio-behavioural surveys or service delivery data. (Aggregation of sub-national data to create national level estimates can be done by hand or with computer packages. See Step 1 in Volume I for how to aggregate data to create national level estimates.)

Service delivery providers will focus on input and output measures but may estimate coverage and outcome measures if they collect the appropriate data. Service delivery providers are encouraged to review the forms provided in these operational guidelines in order to obtain measures described below and to consider using unique identifiers to accurately estimate the number of persons reached by interventions and to provide an independent assessment of prevention programme coverage.

The list of measures below is primarily written for monitoring and evaluation of programs for men who have sex with men. The list for monitoring programs for transgender people is identical except that there is one additional measure for transgender people (See measure 2.7). The list for transgender people is not repeated here.

This list does not include indicator reference sheets. Indicator reference sheets fully describe each indicator including its purpose, how it is defined, how often it should be collected, and what are its strengths and weaknesses. After a period of consultation, we anticipate that reference sheets will be developed for each measure below and available on UNAIDS, UNDP, UNFPA, and Global Fund websites.

Abbreviations:
GARPR-Global AIDS Response Progress Reporting
MSM-Men who have Sex with Men
TG-Transgender People
UA-Universal Access indicators
UNGASS-United Nations General Assembly Special Session
DHS-Demographic Health Survey
AIS-AIDS Indicator Survey

References:
1-Global AIDS Response Progress Reporting (GARPR) 2012: Guidelines: Construction of Core Indicators for Monitoring the 2011 Political Declaration on HIV/AIDS (2011). UNAIDS, Geneva.2- UNAIDS (2008). Practical guidelines for intensifying HIV prevention: towards universal access. UNAIDS, Geneva.
3-At the National level: Aggregated Annually from Sub-national level Annual Reports
4-At the Sub-National level: Aggregated Quarterly from Monthly Programme data
5-Repeated Cross-Sectional Bio-Behavioural Surveys of men who have sex with men Conducted Every 2 years in sub-national areas
6-M&E Operational Guidelines for Monitoring and Evaluation of HIV Prevention for Sex Work, Men who have Sex with Men, and Transgender People (M&E Operational Guidelines)
7-UNGASS Most-at-Risk Populations indicator applied to men who have sex with men
8-The measures are used for gap analysis (amount needed minus amount available)
9-Universal Access (UA) indicators (2011). A Guide on Indicators for Monitoring and Reporting on the Health Sector Response to HIV/AIDS.
10-The President's Emergency Plan for AIDS Relief (2009). Next Generation Indicators Reference Guide. Verson 1.1. PEPFAR, Washington, D.C.
11-The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) (2011). Monitoring and Evaluation Toolkit. Part 2. 4th ed. GFATM, Geneva.
12-Global UNGASS Indicator (2009). Monitoring the Declaration of Commitment on HIV/AIDS: guidelines on construction of core indicators : 2010 reporting. UNAIDS, Geneva.
13-UNDP (2012). UBRAF Indicators.

Note: All measures need to be compared with the targets set in Step 3.
Note: National measures are based on sub-national estimates aggregated to national level.
Note: For input, output and coverage measures, sub-national measures are based on service delivery data aggregated to the sub-national level.
Note: UNGASS indicators are no longer recommended as UNGASS was a 10 year agreement that ended in 2011. The Global AIDS Response Progress Reporting (GARPR) indicators replaced the UNGGASS indicators and all GARPR indicators were formerly part of UNGASS though not all UNGASS indicators were carried forward as GARPR.

Worksheet for Selecting Measures

Number	Indicator	Method	Reference	Relevant Steps	Selected Y / N
Section 1. Indicators for Global Reporting					
G1	HIV prevalence among men who have sex with men	Bio-Behavioural Surveys [5]	GARPR[1] #1.14, UA[9] #C6c, PEPFAR[10] #9.17N, GFATM[11] #HIV-I4, (formerly UNGASS#23[12,7])	1 & 8	
G2	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	Bio-Behavioural Surveys [5]	GARPR[1] #1.12, UA[9] #C5d, PEPFAR[10] #9.4N, GFATM[11] #HIV-O5, (formerly UNGASS [12] #19	2 & 7	
G3	Percentage of men who have sex with men who both correctly identify ways of preventing the sexual of HIV and who reject major misconceptions about HIV	Bio-Behavioural Surveys [5]	(formerly UNGASS[12,7] #14)	2 & 7	
G4	Percentage of men who have sex with men that have received an HIV test in the last 12 months and who know their results	Bio-Behavioural Surveys [5]	GARPR[1] #1.13, PEPFAR[10] #P9.10N, GFATM[11] #HIV-C-P6, (formerly UNGASS[12,7] #8)	6	
G5	Percentage of men who have sex with men reached with HIV Prevention Programmes	Bio-Behavioural Surveys [5]	GARPR[1] #1.11, GFATM11#HIV-C-P3, (formerly UNGASS[12,7] #9)	6	
G6	Percentage of eligible men who have sex with men currently receiving ART	Routine Programme data	UA[9] # G2a, (formerly UNGASS [12] #4)	6	
G7	Whether or not the national M&E plan includes all of the components for M&E of HIV prevention programmes for men who have sex with men	Desk review and key informant interviews conducted as part of the NCPI	(formerly UNGASS [12]: Appendix 4 NCPI Part A Section V Number 2 adapted to focus on men who have sex with men)	4	
G8	Total funds expended on programmes for men who have sex with men	National AIDS Spending Assessment for a calendar or fiscal year & Financial Resource Flows	GARPR[1] #6.1, (formerly UNGASS [12]: Appendix 3 National Funding Matrix 1.09)	4	
G9	Percentage of adults (men who have sex with men) with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	Routine Programme data	GARPR[1] #4.2, GFATM[11] # HIV-I6, PEPFAR #T.1.3.D	5, 6	

Number	Indicator	Method	Reference	Relevant Steps	Selected Y / N
Section 2. Other National-Level Indicators from UNAIDS Indicator Registry, Universal Access Reporting (UA), PEPFAR and Global Fund (GFATM) indicator guidelines					
U1	Number of MARP* reached with individual and/or small group level HIV preventive interventions that are based on evidence and/or meet the minimum standards required Note: * Indicator reference uses "MARP".	Service Delivery data	PEPFAR[10] #P8.3D, GFATM[11] #HIV-P4, UNAIDS Indicator Registry # 536	6	
U2	Number and percentage of key populations reached with a basic (minimum) package of HIV prevention services (Indicator should be used when the basic package of services is defined)	Routine Programme data	GFATM[11] #HIV-P5, UNAIDS Indicator Registry # 760	6	
U3	Percentage of men who have sex with men with active syphilis	Bio-Behavioural Surveys [5]	UA[9] # F5	2&7	
U4	Enabling Environment Index for men who have sex with men (Scale 1-16, see below)	Document and Policy Review	GARPR[1] #7.1 National Commitments and Policy Instrument (NCPI) (formerly UNGASS[12]- National Composite Policy Index (NCPI))	2 & 7	
U4 Enabling Environment Index for men who have sex with men (Contributing factors/social enablers assessment)					**Y/ N**
U4.1	Has the country developed national multisectoral strategy to respond to HIV that addresses men who have sex with men? (NCPI, Part A, Section I, 1.3)				
U4.2	Has the country ensured "full involvement and participation" of civil society [including men who have sex with men] in the development of the multisectoral strategy? (NCPI, Part A, Section I, 1.7)				
U4.3	Does the country have a mechanism to promote interaction between government, civil society organizations [including organizations of men who have sex with men], and the private sector for implementing HIV strategies/programmes? (NCPI, Part A, Section II, 3)				
U4.4	Does the country have non-discrimination laws or regulations which specify protections for men who have sex with men? (NCPI, Part A, Section III, 1.1)				
U4.5	[Is the] country [free of] laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for men who have sex with men? (NCPI, Part A, Section III, 2)				
U4.6	Does the country have a policy or strategy to promote information, education and communication and other preventive health interventions for key or other vulnerable sub-populations [such as men who have sex with men]? (NCPI, Part A, Section IV, 3)				
U4.7	Does the [country have a] policy or strategy policy/strategy that addresses condom promotion for men who have sex with men? (NCPI, Part A, Section IV, 3.1)				

U4.8	Does the [country have a] policy or strategy policy/strategy that addresses HIV testing and counselling for men who have sex with men? (NCPI, Part A, Section IV, 3.1)	
U4.9	Does the [country have a] policy or strategy policy/strategy that addresses stigma and discrimination reduction for men who have sex with men? (NCPI, Part A, Section IV, 3.1)	
U4.10	Does the [country have a] policy or strategy policy/strategy that addresses targeted information on risk reduction and HIV education for men who have sex with men? (NCPI, Part A, Section IV, 3.1)	
U4.11	Does the [country have a] policy or strategy policy/strategy that addresses vulnerability reduction (e.g. income generation) for men who have sex with men? (NCPI, Part A, Section IV, 3.1)	
U4.12	Has the country has identified the specific needs for HIV prevention programmes [for men who have sex with men] (NCPI, Part A, Section IV, 4)	
U4.13	To what extent has HIV prevention been implemented? Do the majority of [men who have sex with men] in need have access to risk reduction? (NCPI, Part A, Section IV, 4.1)	
U4.14	Is there a central national database with HIV-related data on key populations [such as men who have sex with men]? (NCPI, Part A, Section V, 6.1)	
U4.15	Does the country a policy to ensure equal access for men who have sex with men to HIV prevention, treatment, care and support? (NCPI, Part B, Section II, 8)	
U4.16	Does the country have municipal level comprehensive HIV prevention, treatment and care programmes implemented for and with men who have sex with men or transgender people? (UBRAF UNDP Indicator A1.2.1a)[13]	

Number	Measures	Method	Relevant Steps	Selected Y / N
Section 3. Other measures in the Guidelines[6] that may be useful				
National Level and Selected Sub-National Area Measures				
Impact Measures including Size of Population				
1.1	Number of men who have sex with men	DHS or AIS survey, Size estimation methods	1 & 8	
1.2	Number of men who have sex with men who are HIV positive	Modelling (Spectrum /MOT)	1 & 8	
1.3	HIV prevalence among men who have sex with men age 15-24 as a proxy for HIV incidence	Bio-Behavioural Surveys [5]	1 & 8	
1.4	HIV incidence among men who have sex with men	Modelling (Spectrum /MOT)	1 & 8	
Outcome Measures for Direct / Biologic Determinants of HIV Transmission				
2.1	Average number of new male sex partners per year among men who have sex with men	Bio-Behavioural Surveys [5]	2&7	
2.2	Percentage of men who have sex with men who report having sex for the first time younger than age 15	Bio-Behavioural Surveys [5]	2&7	
2.3	Percentage of men who have sex with men reporting unprotected receptive anal sex at last time they had sex with a male partner	Bio-Behavioural Surveys [5]	2&7	
2.4	Percentage of men who have sex with men who are circumcised	Bio-Behavioural Surveys [5]	2&7	
2.5	Percentage of men who have sex with men reporting use of	Bio-Behavioural Surveys [5]	2&7	

	injecting drugs in last 12 months			
2.6	Percentage of men who have sex with men who inject drugs reporting use of clean needle the last time injected	Bio-Behavioural Surveys [5]	2&7	
2.7	Percentage of TG who inject drugs or other substances (e.g. silicone) for gender enhancement reporting use of clean needle the last time they injected	Bio-Behavioural Surveys [5]	2&7	
Outcome Measures for Enabling Environment and Contributing Factors				
2.8	Percentage of people in general population with high score on homophobia scale (See for example, Wright, L. W., Adams, H. E., & Bernat, J. (1999)).	Population-based household surveys	2&7	
2.9	Percentage men who have sex with men who report experiencing stigma within last 12 months	Culturally appropriate stigma scale within surveys [5]	2&7	
2.10	Percentage of men who have sex with men reporting physical violence within last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.11	Percentage of men who have sex with men reporting verbal abuse within last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.12	Percentage of men who have sex with men reporting getting paid in exchange for having sexual intercourse in last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.13	Percentage of men who have sex with men who report at last sexual intercourse use of alcohol by himself or partner (*See AIDS Indicator Survey, March 2006*)	Bio-Behavioural Surveys [5]	2&7	
2.14	Percentage of men who have sex with men reporting symptoms of an STI in the past 12 months	Bio-Behavioural Surveys [5]	2&7	
Coverage Measures				
3.1	Percentage of men who have sex with men receiving no HIV prevention services in the past 12 months	Bio-Behavioural Surveys [5]	6	
3.2	Percentage of men who have sex with men receiving the country-defined complete package of services in the past 12 months	Bio-Behavioural Surveys [5]	6	
3.3	Percentage of men who have sex with men reporting that they could get condoms on their own if they wanted *(Adapted from UNAIDS Indicator Registry #400)*	Bio-Behavioural Surveys [5]	6	
Sub-National Level and Service Delivery Providers				
Coverage Measures				
For each service in the nationally defined package of services, percentage of men who have sex with men who received the service in the past 12 months (or ever for vaccination) (sub-national only):				
3.4	Percentage of men who have sex with men reached by condom promotion and distribution programmes the past 12 months	Bio-Behavioural Surveys [5]	6	
3.5	Percentage of men who have sex with men reached by lubricants promotion and distribution programmes the past 12 months	Bio-Behavioural Surveys [5]	6	
3.6	Percentage of men who have sex with men screened for STI in the past 12 months	Bio-Behavioural Surveys [5]	6	

3.7	Percentage of men who have sex with men reached by HIV testing and counselling programme in the past 12 months and know their result (same as G4)	Bio-Behavioural Surveys [5]	6	
3.8	Percentage of men who have sex with men who have received specific and targeted information on prevention and risk reduction strategies designed to appeal to and meet the needs of men who have sex with men	Bio-Behavioural Surveys [5]	6	
3.9	Percentage of men who have sex with men who have completed the course of HBV vaccination	Bio-Behavioural Surveys [5]	6	
Note: Service delivery providers that know the size of the men who have sex with men population in their catchment area and can estimate the unique number of persons reached may estimate coverage measures 3.4-3.9.				
Geographic Coverage (for Each Sub-National Area Monitored)				
3.10	Whether HIV prevention programme is available for men who have sex with men in sub-national area (Y/N)	Programme data [4]	6	
Services				
3.11	Availability of condom promotion and distribution programmes for men who have sex with men in sub-national area (Y/N)	Programme data [4]	6	
3.12	Availability of lubricants distribution programmes for men who have sex with men in sub-national area (Y/N)	Programme data [4]	6	
3.13	Availability of quality treatment for sexually transmitted infections in sub-national area (Y/N)	Programme data [4]	6	
3.14	Availability of voluntary testing and counselling in sub-national area (Y/N)	Programme data [4]	6	
3.15	Availability of information and prevention and care services for female partners of men who have sex with men in sub-national area (Y/N)	Programme data [4]	6	
3.16	Availability of HIV treatment and care programmes for men who have sex with men in sub-national area (Y/N)	Programme data [4]	6	
3.17	Availability and promotion of hepatitis immunization in sub-national area (Y/N)	Programme data [4]	6	
3.18	Number of service delivery providers offering the country defined complete package of services to men who have sex with men in sub-national area	Programme data [4]	6	
Enabling environments- Geographic Availability				
3.19	Availability of medical and legal assistance for boys and men who experience sexual coercion and violence in sub-national area (Y/N)	Document Review, Stakeholders' meetings	6	
3.20	Availability of safe virtual and physical spaces (e.g. telephone hotlines, drop-in centres) for men who have sex with men to seek information and referrals for care and support in sub-national area (Y/N) *(See UNAIDS Practical Guidelines for Intensifying HIV Prevention [2])*	Stakeholders' meetings	6	

Output Measures				
4.1	Number of unique medical providers receiving training on providing treatment to men who have sex with men	Programme data[4]	6	
4.2	Number of men who have sex with men provided with condoms by HIV prevention programmes for men who have sex with men	Programme data[4]	6	
4.3	Number of condoms distributed by HIV prevention programmes for men who have sex with men	Programme data[4]	6	
4.4	Number of coordinated mass media campaigns, segmented by audience, that address high-risk sexual norms, reduce multiple and concurrent partnerships, reduce stigma towards men who have sex with men *(See UNAIDS Practical Guidelines for Intensifying HIV Prevention[2])*	Programme data[4]	6	
Input Measures - The measures are used for gap analysis (amount needed minus amount available)				
5.1	Funds available	Programme data[4]	4	
5.2	Human Resources available	Programme data[4]	4	
5.3	Equipment available	Programme data[4]	4	
National, Sub-National Level and Service Delivery Providers				
Quality Measures				
6.1	Percentage and number of safe spots that meet quality standards	Quality Audit	5	
6.2	Percentage and number of HIV testing and counselling sites that conduct outreach to men who have sex with men	Programme data[3,4]	5	
6.3	Percentage of providers testing and treating for STIs who have been trained to provide STI services to men who have sex with men	Programme data[3,4]	5	
6.4	Percentage of men who have sex with men diagnosed with STI who received treatment	Surveys[5], Programme data[3,4]	5	
6.5	Whether men who have sex with men participate in quality audits	Quality Checklist	5	
6.6	Whether men who have sex with men participate in service delivery	Quality Checklist	5	
6.7	Among men who have sex with men diagnosed with HBV in the past 12 months, percentage of men who have sex with men receiving treatment for HBV	Programme data[3,4]	5	
6.8	Among men who have sex with men who were due to complete HBV treatment in the past 12 months, percentage of men who have sex with men completing treatment for HBV	Programme data[3,4]	5	
6.9	Among men who have sex with men diagnosed with TB in the past 12 months, percentage of men who have sex with men who started treatment	Programme data[3,4]	5	
6.10	Number of condoms available for distribution nationwide *(See HIV/AIDS Survey Indicators Database, Indicator # 2.1.)*	Condom data from condom manufacturers, distributors, major donors, storage facilities,	5	

		governments and NGOs		
6.11	Percentage of retail outlets and services with condoms in stock *(See HIV/AIDS Survey Indicators Database, Indicator # 2.2.)*	A number of sites of different types are randomly selected for a retail survey.	5	
6.12	Percentage of condoms that meet quality control measures *(See HIV/AIDS Survey Indicators Database, Indicator # 2.3.)*	The sampling frame for retail outlets used in Condom Availability Indicator 2, Retail outlets and services with condoms in stock, can be used for the retail portion of this indicator; condoms may be sampled from retail outlets during the retail survey.	5	

TOOL 23. Worksheet to Select Measures at National, Sub-National and Service Delivery Levels to Monitor and Evaluate Programs for Sex Workers

The worksheet below can be used to select global, national, sub-national and service delivery measures for monitoring and evaluating HIV prevention programs for sex workers (male and female).

Some countries will choose to estimate measures in selected sub-national areas or cities and base national level measures on data from those sub-national areas. Such national measures must be interpreted with care because they do not include all areas of the country.

By definition, people younger than 18 who exchange sex for money are not sex workers. Measures for this group have not yet been developed, but countries who want to monitor programs among these persons can draw on the measures below.

The worksheet below includes indicators recommended at the global level for The monitoring the 2011 Political Declaration on HIV/AIDS (GARPR) and Universal Access reporting and presents other potentially useful measures to monitor progress in implementing programs based on programme implementation pathways. Consistent monitoring of these measures can identify where there are bottlenecks and where additional attention is needed. Programme implementation pathways should be developed in collaboration with implementing partners including members of the key populations. These pathways will differ from country to country and consequently the measures may also vary. The highest priority is to monitor measures at the sub-national level in areas most in need of HIV prevention programs for sex workers, based on the size of the population and an understanding of the local epidemic.

Usually national-level measures are aggregated measures based on sub-national estimates from bio-behavioural surveys or service delivery data. (Aggregation of sub-national data to create national level estimates can be done by hand or with computer packages. See Step 1 in Volume I for how to aggregate data to create national level estimates.)

Service delivery providers will focus on input and output measures but may estimate coverage and outcome measures if they collect the appropriate data. Service delivery providers are encouraged to review the forms provided in these operational guidelines in order to obtain measures described below and to consider using unique identifiers to accurately estimate the number of persons reached by interventions and to provide an independent assessment of prevention programme coverage.

This list does not include indicator reference sheets. Indicator reference sheets fully describe each indicator including its purpose, how it is defined, how often it should be collected, and what are its

strengths and weaknesses. After a period of consultation, we anticipate that reference sheets will be developed for each measure below and available on UNAIDS, UNDP, UNFPA, and Global Fund websites.

Abbreviations:
GARPR-Global AIDS Response Progress Reporting
UA-Universal Access indicators
UNGASS-United Nations General Assembly Special Session
DHS-Demographic Health Survey
AIS-AIDS Indicator Survey

References:
1-Global AIDS Response Progress Reporting (GARPR) 2012: Guidelines: Construction of Core Indicators for Monitoring the 2011 Political Declaration on HIV/AIDS (2011). UNAIDS, Geneva.2- UNAIDS (2008). Practical guidelines for intensifying HIV prevention: towards universal access. UNAIDS, Geneva.
3-At the National level: Aggregated Annually from Sub-national level Annual Reports
4-At the Sub-National level: Aggregated Quarterly from Monthly Programme data
5-Repeated Cross-Sectional Bio-Behavioural Surveys of sex workers Conducted Every 2 years in sub-national areas
6-M&E Operational Guidelines for Monitoring and Evaluation of HIV Prevention for Sex Work, Men who have Sex with Men, and Transgender People (M&E Operational Guidelines)
7-UNGASS Most-at-Risk Populations indicator applied to sex workers
8-The measures are used for gap analysis (amount needed minus amount available)
9-Universal Access (UA) indicators (2011). A Guide on Indicators for Monitoring and Reporting on the Health Sector Response to HIV/AIDS.
10-The President's Emergency Plan for AIDS Relief (2009). Next Generation Indicators Reference Guide. Verson 1.1. PEPFAR, Washington, D.C.
11-The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) (2011). Monitoring and Evaluation Toolkit. Part 2. 4th ed. GFATM, Geneva.
12-Global UNGASS Indicator (2009). Monitoring the Declaration of Commitment on HIV/AIDS: guidelines on construction of core indicators : 2010 reporting. UNAIDS, Geneva
13-UNDP (2012). UBRAF Indictaors.

Note: All measures need to be compared with the targets set in Step 3.
Note: National measures are based on sub-national estimates aggregated to national level.
Note: For input, output and coverage measures, sub-national measures are based on service delivery data aggregated to the sub-national level.
Note: UNGASS indicators are no longer recommended as UNGASS was a 10 year agreement that ended in 2011. The Global AIDS Response Progress Reporting (GARPR) indicators replaced the UNGGASS indicators and all GARPR indicators were formerly part of UNGASS though not all UNGASS indicators were carried forward as GARPR.

Worksheet for Selecting Measures

Number	Indicator	Method	Reference	Relevant Steps	Selected Y / N
Section 1. Indicators for Global Reporting					
G1	HIV prevalence among sex workers	Bio-Behavioural Surveys [5]	GARPR[1]#1.10, UA[9] #C6b, PEPFAR[10]#9.17N, GFATM[11]#HIV-I3, (formerly UNGASS#23[12,7])	1 & 8	
G2	Percentage of female and male sex workers reporting the use of a condom with their most recent client	Bio-Behavioural Surveys [5]	GARPR[1]#1.8, UA[9] #C5c, PEPFAR[10]#P9.2.N, GFATM[11]#HIV-O4, (formerly UNGASS [12]#18)	2 & 7	
G3	Percentage of sex workers who both correctly identify ways of preventing the sexual of HIV and who reject major misconceptions about HIV	Bio-Behavioural Surveys [5]	(formerly UNGASS[12,7]#14)	2 & 7	
G4	Percentage of sex workers that have received an HIV test in the last 12 months and who know their results	Bio-Behavioural Surveys [5]	GARPR[1]#1.9, PEPFAR[10]#P9.10N, GFATM[11]#HIV-C-P5, (formerly UNGASS[12,7]#8)	6	
G5	Percentage of sex workers reached with HIV Prevention Programmes	Bio-Behavioural Surveys [5]	GARPR[1]#1.7, GFATM[11]#HIV-C-P2, (formerly UNGASS[12,7] #9)	6	
G6	Percentage of eligible sex workers currently receiving ART	Routine Programme data	UA[9] # G2a, (formerly UNGASS [12]#4)	6	
G7	Whether or not the national M&E plan includes all of the components for M&E of HIV prevention programmes for sex workers	Desk review and key informant interviews conducted as part of the NCPI	(formerly UNGASS [12]: Appendix 4 NCPI Part A Section V Number 2 adapted to focus on sex workers)	4	
G8	Total funds expended on programmes for sex workers	National AIDS Spending Assessment for a calendar or fiscal year & Financial Resource Flows	GARPR[1]#6.1, (formerly UNGASS [12]: Appendix 3 National Funding Matrix 1.09)	4	
G9	Percentage of adults (sex workers) with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	Routine Programme data	GARPR[1] #4.2, GFATM[11] # HIV-I6, PEPFAR #T.1.3.D	5, 6	

Number	Indicator	Method	Reference	Relevant Steps	Selected Y / N
Section 2. Other National-Level Indicators from UNAIDS Indicator Registry, Universal Access Reporting (UA), PEPFAR and Global Fund (GFATM) indicator guidelines					
U1	Number of MARP* reached with individual and/or small group level HIV preventive interventions that are based on evidence and/or meet the minimum standards required Note: * Indicator reference uses "MARP".	Service Delivery data	PEPFAR[10] #P8.3D, GFATM[11] #HIV-P4, UNAIDS Indicator Registry # 536	6	
U2	Number and percentage of key populations reached with a basic (minimum) package of HIV prevention services (Indicator should be used when the basic package of services is defined)	Routine Programme data	GFATM[11] #HIV-P5, UNAIDS Indicator Registry # 760	6	
U3	Percentage of sex workers with active syphilis	Bio-Behavioural Surveys [5]	UA[9] # F4	2&7	
U4	Enabling Environment Index for sex workers (Scale 1-16, see below)	Document and Policy Review	GARPR[1] #7.1 National Commitments and Policy Instrument (NCPI) (formerly UNGASS[12]- National Composite Policy Index (NCPI))	2 & 7	
U4 Enabling Environment Index for sex workers (Contributing factors/social enablers assessment)					**Y/N**
U4.1	Has the country developed national multisectoral strategy to respond to HIV that addresses sex workers? (NCPI, Part A, Section I, 1.3)				
U4.2	Has the country ensured "full involvement and participation" of civil society [including sex workers] in the development of the multisectoral strategy? (NCPI, Part A, Section I, 1.7)				
U4.3	Does the country have a mechanism to promote interaction between government, civil society organizations [including organizations of sex workers], and the private sector for implementing HIV strategies/programmes? (NCPI, Part A, Section II, 3)				
U4.4	Does the country have non-discrimination laws or regulations which specify protections for sex workers? (NCPI, Part A, Section III, 1.1)				
U4.5	[Is the] country [free of] laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for sex workers? (NCPI, Part A, Section III, 2)				
U4.6	Does the country have a policy or strategy to promote information, education and communication and other preventive health interventions for key or other vulnerable sub-populations [such as sex workers]? (NCPI, Part A, Section IV, 3)				
U4.7	Does the [country have a] policy or strategy policy/strategy that addresses condom promotion for sex workers? (NCPI, Part A, Section IV, 3.1)				

U4.8	Does the [country have a] policy or strategy policy/strategy that addresses HIV testing and counselling for sex workers? (NCPI, Part A, Section IV, 3.1)	
U4.9	Does the [country have a] policy or strategy policy/strategy that addresses stigma and discrimination reduction for sex workers? (NCPI, Part A, Section IV, 3.1)	
U4.10	Does the [country have a] policy or strategy policy/strategy that addresses targeted information on risk reduction and HIV education for sex workers? (NCPI, Part A, Section IV, 3.1)	
U4.11	Does the [country have a] policy or strategy policy/strategy that addresses vulnerability reduction (e.g. income generation) for sex workers? (NCPI, Part A, Section IV, 3.1)	
U4.12	Has the country has identified the specific needs for HIV prevention programmes [for sex workers] (NCPI, Part A, Section IV, 4)	
U4.13	To what extent has HIV prevention been implemented? Do the majority of [sex workers] in need have access to risk reduction? (NCPI, Part A, Section IV, 4.1)	
U4.14	Is there a central national database with HIV-related data on key populations [such as sex workers]? (NCPI, Part A, Section V, 6.1)	
U4.15	Does the country a policy to ensure equal access for sex workers to HIV prevention, treatment, care and support? (NCPI, Part B, Section II, 8)	
U4.16	Does the country have municipal level comprehensive HIV prevention, treatment and care programmes implemented for and with sex workers? (UBRAF UNDP Indicator A1.2.1a)[13]	

Section 3. Other measures in the Guidelines[6] that may be useful

Number	Measures	Method	Relevant Steps	Selected Y / N
National Level and Selected Sub-National Area Measures				
Impact Measures including Size of Population				
1.1	Number of sex workers age 18+	DHS or AIS survey, Size estimation methods	1&8	
1.2	Number of sex workers age 18+ who are HIV positive	Modelling (Spectrum /MOT)	1&8	
1.3	HIV prevalence among sex workers age 18-24 as a proxy for HIV incidence	Bio-Behavioural Surveys [5]	1&8	
1.4	HIV incidence among sex workers age 18 and older	Modelling (Spectrum /MOT)	1&8	
1.5	HIV prevalence among minors age 15-17 who exchange sex for money	Survey	1&8	
Outcome Measures for Direct / Biologic Determinants of HIV Transmission				
2.1	Percentage of sex workers reporting symptoms of an STI in the past 12 months	Bio-Behavioural Surveys [5]	2&7	
2.2	Percentage of sex workers who report having sex for the first time younger than age 15	Bio-Behavioural Surveys [5]	2&7	
2.3	Percentage of sex workers reporting unprotected receptive anal sex at last time they had sex with a male partner	Bio-Behavioural Surveys [5]	2&7	

2.4	Age at first sex	Bio-Behavioural Surveys [5]	2&7	
2.5	Percentage of sex workers reporting use of injecting drugs in last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.6	Percentage of sex workers who inject drugs reporting use of clean needle the last time injected	Bio-Behavioural Surveys [5]	2&7	
2.7	Percentage of protected sex acts in the last week	Bio-Behavioural Surveys [5]	2&7	
Outcome Measures for Enabling Environment and Contributing Factors				
2.8	Percentage of sex workers reporting sexual violence within last 12 months	Sub-National Bio-Behavioural Surveys [5]	2&7	
2.9	Percentage sex workers who report experiencing stigma within last 12 months	Culturally appropriate stigma scale within surveys [5]	2&7	
2.10	Percentage of sex workers reporting physical violence within last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.11	Percentage of sex workers reporting verbal abuse within last 12 months	Bio-Behavioural Surveys [5]	2&7	
2.13*	Percentage of sex workers who report use of alcohol by themselves or partner at last sexual intercourse (*See AIDS Indicator Survey, March 2006*)	Bio-Behavioural Surveys [5]	2&7	
Coverage Measures				
3.1	Percentage of sex workers receiving no HIV prevention services in the past 12 months	Bio-Behavioural Surveys [5]	6	
3.2	Percentage of sex workers receiving the country-defined complete package of services in the past 12 months	Bio-Behavioural Surveys [5]	6	
3.3	Percentage of sex workers reporting that they could get condoms on their own if they wanted *(Adapted from UNAIDS Indicator Registry #400)*	Bio-Behavioural Surveys [5]	6	
Sub-National Level and Service Delivery Providers				
Coverage Measures				
For each service in the nationally defined package of services, percentage of sex workers who received the service in the past 12 months (or ever for vaccination) (sub-national only):				
3.4	Percentage of sex workers reached by condom promotion and distribution programmes the past 12 months	Bio-Behavioural Surveys [5]	6	
3.6*	Percentage of sex workers screened for STI in the past 12 months	Bio-Behavioural Surveys [5]	6	
3.7	Percentage of sex workers reached by HIV testing and counselling programme in the past 12 months and know their result (same as G4 / UNGASS 8)	Bio-Behavioural Surveys [5]	6	
3.8	Percentage of sex workers who have received specific and targeted information on prevention and risk reduction strategies designed to appeal to and meet the needs of sex workers	Bio-Behavioural Surveys [5]	6	

3.9	Percentage of sex workers who have completed the course of HBV vaccination	Bio-Behavioural Surveys [5]	6	
Note: Service delivery providers that know the size of the sex workers population in their catchment area and can estimate the unique number of persons reached may estimate coverage measures 3.4-3.9.				
Geographic Coverage (for Each Sub-National Area Monitored)				
3.10	Whether HIV prevention programme is available for sex workers in sub-national area (Y/N)	Programme data [4]	6	
Services				
3.11	Availability of condom promotion and distribution programmes for sex workers in sub-national area (Y/N)	Programme data [4]	6	
3.12	Availability of lubricants distribution programmes for sex workers in sub-national area (Y/N)	Programme data [4]	6	
3.13	Availability of quality treatment for sexually transmitted infections in sub-national area (Y/N)	Programme data [4]	6	
3.14	Availability of voluntary testing and counselling in sub-national area (Y/N)	Programme data [4]	6	
3.15	Availability of information and prevention and care services for clients of sex workers in sub-national area (Y/N)	Programme data [4]	6	
3.16	Availability of HIV treatment and care programmes for sex workers in sub-national area (Y/N)	Programme data [4]	6	
3.17	Availability and promotion of hepatitis immunization in sub-national area (Y/N)	Programme data [4]	6	
3.18	Number of service delivery providers offering the country defined complete package of services to sex workers in sub-national area	Programme data [4]	6	
Enabling environments- Geographic Availability				
3.19	Availability of medical and legal assistance for sex workers who experience sexual coercion and violence in sub-national area (Y/N)	Document Review, Stakeholders' meetings	6	
3.20	Availability of safe virtual and physical spaces (e.g. telephone hotlines, drop-in centres) for sex workers to seek information and referrals for care and support in sub-national area (Y/N) *(See UNAIDS Practical Guidelines for Intensifying HIV Prevention [2])*	Stakeholders' meetings	6	
3.21	Availability of adult literacy programmes for sex workers	Stakeholders' meetings	6	
3.22	Number of economic empowerment initiatives for sex workers operating in a country	Stakeholders' meetings	6	
3.23	Number of sex work organisations supported in a country	Stakeholders' meetings	6	
3.24	Number of workplace programmes for male employees implemented to reach potential clients of sex workers	Stakeholders' meetings	6	
Output Measures				
4.1	Number of unique medical providers receiving training on providing treatment to sex workers	Programme data [4]	6	

4.2	Number of sex workers provided with condoms by HIV prevention programmes for sex workers	Programme data[4]	6	
4.3	Number of condoms distributed by HIV prevention programmes for sex workers	Programme data[4]	6	
4.4	Number of coordinated mass media campaigns, segmented by audience, that address high-risk sexual norms, reduce multiple and concurrent partnerships, reduce stigma towards sex workers *(See UNAIDS Practical Guidelines for Intensifying HIV Prevention[2])*	Programme data[4]	6	
4.5	Number of sex workers who visited a clinic at least once	Programme data[4]	6	
Input Measures - The measures are used for gap analysis (amount needed minus amount available)				
5.1	Funds available	Programme data[4]	4	
5.2	Human Resources available	Programme data[4]	4	
5.3	Equipment available	Programme data[4]	4	
National, Sub-National Level and Service Delivery Providers				
Quality Measures				
6.1	Percentage of safe spots that meet quality standards	Quality Audit	5	
6.2	Percentage of HIV testing and counselling sites that conduct outreach to sex workers	Programme data[3,4]	5	
6.3	Percentage of providers testing and treating for STIs who have been trained to provide STI services to sex workers	Programme data[3,4]	5	
6.4	Percentage of sex workers diagnosed with STI who received treatment	Surveys[5], Programme data[3,4]	5	
6.5	Whether sex workers participate in quality audits	Quality Checklist	5	
6.6	Whether sex workers participate in service delivery	Quality Checklist	5	
6.7	Among sex workers diagnosed with HBV in the past 12 months, percentage of sex workers receiving treatment for HBV	Programme data[3,4]	5	
6.8	Among sex workers who were due to complete HBV treatment in the past 12 months, percentage of sex workers completing treatment for HBV	Programme data[3,4]	5	
6.9	Among sex workers diagnosed with TB in the past 12 months, percentage of sex workers who started treatment	Programme data[3,4]	5	
6.10	Number of condoms available for distribution nationwide *(See HIV/AIDS Survey Indicators Database, Indicator # 2.1.)*	Condom data from condom manufacturers, distributors, major donors, storage facilities, governments and NGOs	5	
6.11	Percentage of retail outlets and services with condoms in stock *(See HIV/AIDS Survey Indicators Database, Indicator # 2.2.)*	A number of sites of different types are randomly selected for a retail survey.	5	

6.12	Percentage of condoms that meet quality control measures *(See HIV/AIDS Survey Indicators Database, Indicator # 2.3.)*	The sampling frame for retail outlets used in Condom Availability Indicator 2, Retail outlets and services with condoms in stock can be used for the retail portion of this indicator; condoms may be sampled from retail outlets during the retail survey.	5	

*the measure prior this is missed intentionally to ensure consistency across all measures for men who have sex with men, sex workers and transgender people.

TOOL 24. Recommended Community Systems Strengthening Indicators

Note: Based on The Global Fund to Fight Aids, Tuberculosis and Malaria (2011). Community Systems Strengthening Framework, August 2011, p.53 -56.

Please note that these indicators have not been pilot tested.

Recommended CORE process and output indicators for monitoring and evaluating community systems strengthening efforts

Core component 1: Enabling environments and advocacy	
Service delivery area (SDA) 1: Monitoring and documentation of community and government interventions	Number of community-based organizations and/or networks that have meaningfully participated in joint national program reviews or evaluations in the last 12 months (1.1)
SDA 2: Advocacy, communication and social mobilization	Number of community-led advocacy campaigns that saw a targeted policy change or can clearly document improved implementation of an existing (targeted) policy within 2 years of the start of the advocacy campaign (2.1)
Core component 2: Community networks, linkages, partnerships and coordination	
SDA 3: Building community linkages, collaboration and coordination	Number and percent of community-based HIV, TB, malaria and immunization service organizations with referral protocols in place that monitor completed referrals according to national guidelines (3.1)
Core component 3: Resources and capacity building	
SDA 4: Human resources: skills building for service delivery, advocacy and leadership	Number and percentage of staff members and volunteers currently working for community-based organizations that have worked for the organization for more than 1 year (4.1)
SDA 5: Financial resources	Number and percentage of community-based organizations that have a complete and sound financial management system, which is known and understood by staff and consistently adhered to (5.1)
SDA 6: Material resources – infrastructure and (including medical and other products & technologies)	Number and percentage of community-based organizations reporting no stock-outs of HIV, TB, malaria or immunization essential commodities according to program implementation focus during the reporting period (6.1)
Core component 4: Community activities and service	
SDA 7: Community-based activities and services – delivery, use and quality	Number and percentage of community-based organizations that deliver services for HIV, TB, malaria and immunization according to national or international accepted service delivery standards (7.1)
Core component 5: leadership and organizational strengthening	
SDA 8: Management, accountability and leadership	Number and percentage of staff members of community-based organizations with written terms of reference and defined job duties (8.1)
Core component 6: monitoring & evaluation and planning	
SDA 9: Monitoring and evaluation, evidence-building	Number and percentage of community-based organizations that submit timely, complete and accurate financial and programmatic reports to the national level according to nationally or internationally recommended standards and guidelines (where such guidelines exist) (9.1)
SDA 10: Strategic planning	Number and percentage of community-based organizations with a developed strategic plan covering 2 to 5 years (10.1)

Additional process and output indicators for monitor and evaluating community system strengthening efforts

Core component 1: Enabling environments and advocacy	
SDA 1: Monitoring and documentation of community and government interventions	Number of community-based organizations and/or networks that have documented and publicized barriers to equitable access to health services and/or implementation of national HIV, TB, malaria and immunization programs during the last 12 months (1.2)
Core component 2: Community networks, linkages, partnerships and coordination	
SDA 3: Building community linkages, collaboration and coordination	Number and percentage of community-based organizations that are represented through membership in national or provincial level technical or coordination policy bodies of disease programs and that are providing feedback to communities (3.2)
	Number and percentage of community-based organizations that implemented at least one documented feedback mechanism with the community they serve in the last 6 months (3.3)
Core component 3: Resources and capacity building	
SDA 4: Human resources: skills building for service delivery, advocacy and leadership	Number and percentage of community health workers currently working with community-based organizations who received training or retraining in HIV, TB, malaria or immunization service delivery according to national guidelines (where such guidelines exist) during the last national reporting period (4.2)
	Number and percentage of community-based organizations that received supportive supervision in accordance with national guidelines (where such guidelines exist) in the last 3 to 6 months (4.3)
	Number and percentage of volunteers working with community-based organizations who are provided with incentives (4.4)
SDA 5: Financial resources	Number and percentage of community-based organizations that have core funding secured for at least 2 years (5.2)
SDA 6: Material resources – infrastructure information and essential commodities (including medical and other products and technologies)	Number and percentage of community-based organizations that keep accurate data for inventory management according to national or international policy (6.2)
	Number and percentage of community-based organizations with staff or volunteers that are responsible for stock management trained or retrained in stock (inventory) management in the past 12 months (6.3)
	Number and percentage of community-based organizations that maintain adequate storage conditions and handling procedures for essential commodities (6.4)
Core component 4: Community activities and service delivery	
SDA 7: Community-based activities and services – delivery, use and quality	Number and percentage of community-based organizations that implemented activities contributing to the national disease strategic plan as documented by their plans and reports to the national designated entity (7.2)
	Number and percentage of people that have access to community-based HIV, TB, malaria or immunization services in a defined area (7.3)
Core component 5: leadership and organizational strengthening	
SDA 8: Management, accountability and leadership	Number and percentage of community-based organizations with staff in managerial positions who received training or retraining in management, leadership or accountability during the last reporting period (8.2)

	Number and percentage of community-based organizations that received technical support for institutional strengthening in accordance with their requests the last 12 months (8.3)
Core component 6: monitoring & evaluation and planning	
SDA 9: Monitoring and evaluation, evidence-building	Number and percentage of community-based organizations with at least one staff member in charge of M&E (9.2)
	Number and percentage of community-based organizations with at least one staff member in charge of M&E who received training or retraining in M&E according to nationally recommended guidelines (where such guidelines exist) during the last national reporting period (9.3)
	Number and percentage of community-based organizations using standard data collection tools and reporting formats to report to the national reporting system (9.4)
	Number and percentage of community-based organizations conducting documented reviews of their own program performance according to their strategic plan in accordance with the national reporting cycle (9.5)
SDA 10: Strategic planning	Number and percentage of community-based organizations that are implementing a budgeted annual workplan (10.2)

Appendix 2. HIV/AIDS Monitoring and Evaluation Glossary

Accountability—responsibility for the use of resources and the decisions made, as well as the obligation to demonstrate that work has been done in compliance with agreed-upon rules and standards and to report fairly and accurately on performance results.

Activity—actions taken to produce specific outputs from inputs such as funds, technical assistance, and other resources.

Adequacy evaluation—measures how well programme activities have met the expected objectives, but does not causally link programme activities to observed changes. Adequacy evaluation often can be carried out by cross-sectional, one-time surveys among beneficiaries.

Assumptions—hypotheses about factors that could affect the progress or success of an intervention. Achieving results depends on whether or not the assumptions made prove to be true. Incorrect assumptions at any stage can become an obstacle to the validity of the expected result or achieving it.

Attribution—the causal link of one event with another, or the ascription of a causal link between observed changes and a specific intervention.

Baseline—the status of services and outcome-related measures, such as knowledge, attitudes, norms, behaviours, and conditions before intervention.

Benchmark—a reference point or standard against which progress or achievements can be assessed. A benchmark refers to the performance that has been achieved in the recent past by other comparable organisations, or what can be reasonably inferred to have been achieved in similar circumstances.

Capacity—the knowledge, organisation, and resources needed to perform a function.

Case study—a methodological approach that describes a situation, individual, or the like and that typically incorporates the data-gathering activities (e.g., interviews, observations, questionnaires) at selected sites or programmes. Case studies are characterized by purposive selection of sites, or small samples, and the expectation of generalizability is less than that in many other forms of research. The findings are used to report to stakeholders, make recommendations for programme improvement, and share lessons with other countries.

Combination Prevention- involves choosing the right mix of behavioural, biomedical and structural HIV prevention actions and tactics to suit a country's actual epidemic and the needs of those most at risk.

Conclusion—a sound judgment deducted from empirical findings or factual statements corresponding to a specific circumstance.

Country response information system (CRIS)—an information system for monitoring and evaluating national responses to HIV/AIDS. CRIS includes integrated indicator, project/resources tracking, and research modules. It facilitates the development of a clearinghouse for indicator data to enable indicator exchange between the United Nations and other partner applications.

Coverage—the extent to which a programme reaches its intended target population, institution, or geographical area.

Data—specific quantitative and qualitative information or facts that are collected.

Effectiveness—the extent to which a programme or project has achieved its objectives under normal conditions in a field setting.

Efficacy— the extent to which an intervention produces the expected results under ideal implementation conditions in a controlled environment.

Efficiency—a measure of how well inputs (resources such as funds, expertise, and time) are converted into outputs. This term is also used more specifically in economic evaluation to mean the cost value of producing a given product or service.

Epidemic—an infectious disease's rapid spread through a demographic segment of a population. In the context of HIV, a generalized epidemic is characterized by an HIV prevalence higher than 1 percent in the total population; in a concentrated epidemic, the HIV prevalence is higher than 5 percent in any subpopulation at higher risk of HIV infection, but less than 1 percent in the total population.

Epidemiology—the study of how often diseases occur in different groups of people and why. Epidemiological information is used to plan and evaluate strategies to prevent illness.

Evaluability assessment—a study to determine whether or not a programme or project can be evaluated.

Evaluation—the systematic collection and analysis of information about programme activities, characteristics, and outcomes that determines the merit or worth of a specific programme. Evaluation studies provide credible information for use in improving programmes, identifying lessons learned, and informing decisions about future resource allocation. An evaluation can use a quantitative approach (e.g., structured or standardized approaches for collecting numeric or categorical data, such as surveys, questionnaires, and checklists, using experimental or quasi-experimental design), a qualitative approach (e.g., semi structured data collection, such as interviews, focus groups, and observation), or a mix of both approaches.

Exploratory study—a preliminary study to provide information on the topic of the intervention to understand the problem better.

Facility survey—a survey of a representative sample of facilities that generally aims to assess the readiness of all elements required to provide services and other aspects of quality of care (e.g., basic infrastructure, drugs, equipment, test kits, registers, staff trained in the delivery of services). The units of observation are facilities of various types and levels in the same health system. The exact content of the survey can vary, but it typically includes a facility inventory and, sometimes, health worker interviews, user exit interviews, and user-provider observation. Depending on the objective of the survey, both public and private facilities may be included in the sample frame of sites; the Service Provision Assessment is one example. The term "health facility assessment" is sometimes used as a broader term than "facility survey." A health facility assessment includes facility surveys, but it also includes facility censuses, such as the World Health Organization's Service Availability Mapping.

Feasibility—the coherence and quality of a programme or project strategy that makes successful implementation likely.

Formative evaluation—an evaluation intended to improve the performance of a programme or project. A formative evaluation is usually undertaken during the design and pretesting of the project or programme, but it can also be conducted early in the implementation phase, particularly if implementation activities are not going as expected.

Generalizability—the extent to which findings can be assumed to be true for the entire target population, not just the sample. To ensure generalizability, the sample procedure and the data need to meet certain methodological standards.

Goals—the higher order aims of the programme or project, to which the intervention is intended to contribute.

Health information systems (HIS)—a data system, usually computerized, that routinely collects and reports information about the delivery of services, costs, demographic and health information, and results status. The terms "routine health information systems" (RHIS) and "health management information systems" (HMIS) are also sometimes used.

Impact—the longer range, cumulative effect of programmes over time on what they ultimately aim to change. Often, this effect will be a population-level health outcome, such as a change in HIV infection, morbidity, and mortality. Impacts are rarely, if ever, attributable to a single programme, but a programme may, with other programmes, contribute to impacts on a population. Impact can also be used in the context of a specific programme. In this case, it implies a much closer link to attribution of the programme and a conceptual model underlying it.

Impact evaluation—a scientifically rigorous methodology to establish a causal association between programmes and what they aimed to achieve beyond the outcomes on individuals targeted by the programme(s). Impact evaluation looks at the rise and fall of impacts, such as disease incidence and prevalence or quality of life as a function of HIV/AIDS programmes. The effects (impacts) on the entire

populations seldom can be attributed to a single programme or even several programmes; therefore evaluations of impact on populations usually entail an evaluation design that includes the combined effects of a number of programmes for at-risk populations.

Impact monitoring—in the field of public health, a process that is usually referred to as "disease surveillance" (defined above) and is concerned with the monitoring of disease prevalence or incidence. With this type of monitoring, data are collected at the jurisdictional, regional, and national levels.

Incidence—the number of new cases of a disease that occur in a specified population during a specified time period.

Indicator—a quantitative or qualitative variable that provides simple and reliable means to measure achievement, monitor performance, or to reflect changes connected to an intervention.

Input—a resource used in a programme, including monetary and personnel resources from a variety of sources, as well as curricula and materials.

Inputs and outputs monitoring—the basic tracking of information about programme inputs, or resources that go into a programme, and about outputs of the programme activities. Data sources for monitoring inputs and outputs usually exist in programme documentation (e.g., activity reports, logs) and user records, which offer details about the time, place, and amount of services delivered, as well as the types of users receiving services.

Internal evaluation—an evaluation of the intervention conducted by a unit reporting to the donors, partners, and/or implementing organisation.

Intervention—a specific activity (or set of activities) intended to bring about change in some aspect of the status of the target population (e.g., HIV risk reduction, improving the quality of services) using a common strategy. An intervention has distinct process and outcome objectives and a protocol outlining the steps of the intervention.

Joint evaluation—an evaluation of programme or project where different partners or donors participate.

Lessons learned—learning from experience that is applicable to a generic situation, not just to a specific situation. Generalizations are based on evaluation experiences from programmes, projects or policies.

Meta-evaluation—an evaluation that aggregates findings from a series of evaluations. A meta-evaluation can also be an evaluation of an evaluation to assess the performance of the evaluators.

Monitoring—routine tracking and reporting of priority information about a programme and its intended outputs and outcomes.

Monitoring and evaluation (M&E) plan—a comprehensive planning document for all M&E activities. An M&E plan documents the key M&E questions to be addressed, including what indicators are collected; how, how often, from where, and why they will be collected; what baselines, targets, and assumptions will be included; how the indicators are going to be analysed or interpreted; and how or how often reports will be developed and distributed on these indicators.

Objective—a statement of desired programme results. A good objective meets the criteria of being specific, measurable, achievable, realistic, and time based (SMART).

Operational research—the application of systematic research and evaluation techniques to improve programmes and service delivery. This application analyses only factors that are under the control of programme managers, including indicators of programme success, such as improving the quality of services, increasing training and supervision of staff members, and adding new service components. It is designed to assess the accessibility, availability, quality, and sustainability of programmes.

Outcome—the changes that a programme aims to effect on target audiences or populations, such as change in knowledge, attitudes, beliefs, skills, behaviours, access to services, policies, and environmental conditions.

Outcome evaluation—a type of evaluation that is concerned with determining if, and by how much, programme activities or services achieved their intended outcomes among the targeted population. Whereas outcome monitoring is helpful and necessary in knowing whether outcomes were attained, outcome evaluation attempts to attribute observed changes among the targeted population to the intervention tested, describe the extent or scope of programme outcomes, and indicate what might happen in the absence of the programme. An outcome evaluation is methodologically rigorous and generally requires a comparative element in design, such as a control or comparison group, although it is possible to use statistical techniques in some instances when control groups are not available (e.g., for a national programme).

Outcome monitoring—the basic tracking of variables that have been adopted as measures or "indicators" of the desired programme outcomes. Outcome monitoring does not infer causality; changes in outcome could be attributable to multiple factors, not just the programme. With national AIDS programmes, outcome monitoring is typically conducted through population-based surveys (representative of the target population, not necessarily the general population) to track whether desired outcomes have been reached; it may also track information directly related to programme users, such as change in knowledge, attitudes, beliefs, skills, behaviours, access to services, policies, and environmental conditions.

Outputs—the results of programme activities. This term relates to the direct products or deliverables of programme activities, such as the number of counselling sessions completed, the number of people reached, and the number of materials distributed.

Performance—the degree to which an intervention operates according to specific criteria, standards, or guidelines, or achieves results in accordance with stated plans.

Plausibility evaluation—a way to demonstrate with a certain level of certainty that impact is due to an intervention programme. Plausibility evaluation includes the use of control groups and requires baseline and post-intervention statistics, as well as multivariate analyses.

Population-based surveys—large-scale national health surveys, such as Demographic and Health Surveys. Population-based surveys are statistically representative of their target populations. Usually, surveys that are population based imply representation of the general population of a given age and sex in a given geographic area, but they do not have to be national in scope or even of a large scale. National surveys can also be conducted in such a way so that they are not population based.

Prevalence—the total number of people living with a specific disease or condition during a given time period.

Process—the multiple activities that are carried out to achieve the objectives of a programme. The process includes what is done and how well it is done.

Process evaluation—a type of evaluation that focuses on programme implementation, including, but not limited to how services are delivered, differences between the intended population and the population served, access to the programme, management practices. In addition, process evaluation might provide understanding about a programme's cultural, sociopolitical, legal, and economic contexts that affect implementation.

Process monitoring—the routine gathering of information on all aspects of programme or project implementation, to check on how activities are progressing. An example of process monitoring is the routine documentation of characteristics describing the targeted population served, the services provided, and the resources used to deliver those services. It provides information for planning and feedback on the progress of the project or programme to the donors, implementers, and beneficiaries of the activities.

Programme—an overarching national or subnational response to a disease. A programme generally includes a number of projects.

Programme evaluation—a systematic assessment of the means and the ends of some or all stages of a programme, including planning, implementation, and outcome, to determine the value of and to improve the programme.

Programme records—various sources of information that are used to describe programme inputs and programme-related, project-level activities. Examples include budget and expenditure records and logs of commodities.

Project—a time-bound intervention that consists of a set of planned, interrelated activities aimed at achieving defined outputs. A project usually has a shorter timeframe than a programme.

Qualitative data—data collected from qualitative methods, such as interviews, focus groups, observation, and key informant interviews. Qualitative data can provide an understanding of social situations and interaction, as well as people's values, perceptions, motivations, and reactions. Qualitative data are generally expressed in narrative form, not numerically.

Quantitative data—data presented in numerical form, such as survey data and epidemiological data.

Recommendations—proposals aimed at improving the effectiveness, quality, or efficiency of an intervention that should be linked to findings based on monitoring and evaluation data.

Relevance—the degree to which the outputs, outcomes, or goals of the intervention are consistent with the needs of the target group, as well as global, national, partners', and donors' policies and priorities.

Reliability—consistency of the data collected through the repeated use of a scientific instrument or a data collection procedure used under the same conditions. Reliability is not the same as data validity; that is, a data collection method may produce consistent data but not measure what is intended to be measured.

Research—activity that focuses primarily on hypothesis testing, aiming to contribute to generalizable knowledge. Research typically attempts to make statements about relationships among specific variables under controlled circumstances and at a given point in time.

Research design—a plan that defines the research question, hypotheses to be examined, and the number and type of variables to be studied. It also assesses the relationship between the variables by using well-developed principles of scientific inquiry.

Results—the output, outcome, or impact of an intervention.

Second-generation surveillance—HIV surveillance that is tailored to meet the specific pattern of the epidemic in a country. It not only tracks HIV prevalence but also uses additional sources of data to increase understanding of trends of the epidemic over time. It includes biological surveillance of HIV and other sexually transmitted infections as well as systematic surveillance of the behaviours that spread them.

Sentinel surveillance—systematic, ongoing collection and analysis of data from certain sites (e.g., hospitals, health centres, antenatal clinics) selected for their geographic location, medical specialty, and populations served, and considered to have the potential to provide an early indication in the changes in the level of disease.

Stakeholders—a person, group, or entity that has a role and interest in the goals or objectives and implementation of a programme.

Summative evaluation—an evaluation designed to present conclusions about the merit of an intervention and recommendations of whether it should be retained, altered, or eliminated.

Surveillance—the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health. These data can help predict future trends and target needed prevention and treatment programmes.

Sustainability (of a programme)—the likelihood that political and financial support will last.

Target populations—groups of people who are to benefit from the result of the intervention.

Triangulation—the analysis and use of data from three or more sources obtained by different methods. Findings can be corroborated, and the weakness or bias of any of the methods or data sources can be compensated for by the strengths of another, thereby increasing the validity and reliability of the result.

Validity— the extent to which a measurement or test accurately measures what is intended to be measured

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