

OPERATIONAL GUIDELINES
FOR MONITORING AND
EVALUATION OF
HIV PROGRAMMES
FOR PEOPLE
WHO INJECT DRUGS

Monitoring and evaluation at the
service delivery level

DRAFT

Acknowledgements

This document represents the result of a large individual and multiple agency collaboration that strives to improve the conditions for people who inject drugs and reduce human immunodeficiency virus (HIV) among them. The organizations that collaborated on the development of these guidelines include the Joint United Nations Programme on HIV/AIDS (UNAIDS), the World Health Organization (WHO), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC), the United Nations Development Programme (UNDP), the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States Agency for International Development (USAID), the Centers for Disease Control and Prevention (CDC) and the Department for International Development (DFID). In addition, civil society representatives, colleagues working in the field, and consultants were involved in the development of the guidelines. In particular we wish to thank the members of the Monitoring and Evaluation Reference Group (MERG) Technical Working Group on Most-at-Risk-Populations (listed here in alphabetical order): Abu Abdul-Quader (CDC), Jenny Butler (UNFPA), Sandra Kuzmanovska (Global Fund), Riku Lehtovuori (UNODC), Keith Sabin (Co-Chair, WHO), Miriam Lewis Sabin (UNAIDS Secretariat), Otilia Scutelnicu (National Centre of Health Management, Ministry of Health, Republic of Moldova), Mary Ann Torres (International Council of AIDS Service Organizations; ICASO), Igor Toskin (UNAIDS Secretariat), Cheikh Traore (UNDP) and Sharon Weir (Co-Chair, Measure DHS). The document was coordinated by Miriam Lewis Sabin and Igor Toskin under the supervision of Deborah Rugg (Chair, MERG) and edited by Kristina Louise Heatherington.

UNAIDS / JC2227 (English original, December 2011)

© Joint United Nations Programme on HIV/AIDS (UNAIDS) 2011. All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of UNAIDS concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. UNAIDS does not warrant that the information published in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

distribution@unaids.org www.unaids.org

UNAIDS 20 avenue Appia CH-1211 Geneva 27 Switzerland T (+41) 22 791 36 66 F (+41) 22 791 48 35

OPERATIONAL GUIDELINES
FOR MONITORING AND
EVALUATION OF
HIV PROGRAMMES
FOR PEOPLE
WHO INJECT DRUGS

Monitoring and evaluation at
the service delivery level

Contents

Abbreviations	4
Introduction	5
<i>Purpose of the operational guidelines</i>	5
<i>Content of the operational guidelines</i>	5
<i>Intended users of the operational guidelines</i>	6
<i>Using the operational guidelines</i>	6
<i>HIV prevention for people who inject drugs, and M&E for programme planning and improvement</i>	7
Monitoring and evaluation at the service delivery level	21
Step 1: Know your epidemic. Is injecting drug use a problem in the local area?	21
What percentage of people who inject drugs are living with HIV?	21
1.1 What is the evidence that injecting drug use is a problem in the local area?	22
1.2 What is the evidence that people who inject drugs are infected with HIV?	24
1.3 How do service providers define their target population?	
What key populations at higher risk of HIV need services?	
Are the local definitions different from the national definitions?	24
1.4 What is the distribution and size of the population who injects drugs in the catchment area?	25
Step 2: Identify and measure determinants.	
What are the biological determinants and the sociodeterminants of HIV transmission among people who inject drugs in the local area?	27
2.1 What are the biological determinants of HIV transmission among people who inject drugs? What is the extent of use of non-sterile injecting equipment and unprotected sex among people who inject drugs?	28
2.2 What are the sociodeterminants of HIV transmission among people who inject drugs? What are the local barriers to HIV prevention for people who inject drugs? What local strengths can be harnessed for HIV prevention?	29
Step 3: Know your response and set targets.	
How does the local service delivery fit into the national and subnational HIV prevention response? What are the service delivery targets?	32
3.1 Based on the local epidemic, what services are needed to prevent HIV transmission among people who inject drugs in the catchment area?	32
3.2 What services are currently provided?	34
3.3 What are the 1-year targets for output and coverage indicators in the local catchment area?	35

Step 4: Input monitoring.	
What resources are needed to reach the service delivery targets?	27
4.1 What is the gap between the amount of funds needed to meet targets and the amount available?	27
4.2 What is the gap between other resources needed to meet targets and the resources available?	29
Step 5: Process evaluation. Are services implemented as planned?	
What is the quality of the services?	41
5.1 Are the services implemented according to plan?	41
5.2 Is adherence to national standards promoted by service delivery organizations?	
What is the quality of each service being provided?	
What is the quality of the M&E system?	42
Step 6: Output monitoring, including coverage. Are the intended outputs achieved?	
What proportion of the population in the local area received services?	48
6.1 What is the operational definition of “a person reached with a service or package of services”?	49
6.2 What outputs will be monitored at the service delivery level?	
How will service delivery providers avoid double-counting?	51
6.3 How is coverage defined, calculated and interpreted?	56
Step 7: Outcome monitoring and evaluation.	
Are there changes in HIV transmission risk?	59
7.1 Biological determinants: Is the risk for HIV transmission through using non-sterile injecting equipment or having unprotected sex increasing or decreasing?	
Sociodeterminants: Is there progress in reducing underlying factors that contribute to the HIV epidemic?	60
7.2 Is there any evidence that our programme is decreasing risk for HIV transmission?	61
Step 8: Impact monitoring and evaluation. Are the combined HIV prevention activities in the country changing the HIV epidemic among people who inject drugs?	62

Abbreviations

AIDS	ACQUIRED IMMUNODEFICIENCY SYNDROME
CDC	CENTERS FOR DISEASE CONTROL AND PREVENTION
DFID	UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
HIV	HUMAN IMMUNODEFICIENCY VIRUS
ICASO	INTERNATIONAL COUNCIL OF AIDS SERVICE ORGANIZATIONS
M&E	MONITORING AND EVALUATION
MERG	MONITORING AND EVALUATION REFERENCE GROUP
NGO	NONGOVERNMENTAL ORGANIZATION
PLACE	PRIORITIES FOR LOCAL AIDS CONTROL EFFORTS
TB	TUBERCULOSIS
UNAIDS	JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS
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
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
WHO	WORLD HEALTH ORGANIZATION

Introduction

Purpose of the operational guidelines

The purpose of these guidelines (hereafter referred to as “the Guidelines”) is to provide advice and tools for people and organizations planning, managing or implementing monitoring and evaluation (M&E) activities in support of HIV programmes for people who inject drugs.

The objectives are to:

- recommend appropriate data-collection methods that address the unique information needs of programme managers at the national, subnational and service delivery level;
- outline methods that involve people who inject drugs to improve HIV prevention programming;
- offer adaptable tools for local contexts;
- describe examples of data collection from field experiences;
- provide links to additional resources.

The Guidelines are a companion document to *A framework for monitoring and evaluating HIV prevention programmes for most-at-risk populations* (UNAIDS, 2007a; hereafter referred to as “the Framework”). Both documents aim to operationalize the guiding principles and conceptual foundation of the Framework by describing how to implement M&E of HIV prevention for people who inject drugs. The Guidelines also complement the work of WHO, UNODC and UNAIDS presented in *WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users* (WHO, 2009a; hereafter referred to as “the Target setting guide”).

As there is no single way to implement M&E activities, applying the Guidelines in practical settings and different contexts will be carefully documented over the next year and the Guidelines updated accordingly. All comments and feedback are welcome and can be sent to the Response, Monitoring and Analysis Team, UNAIDS, Miriam Lewis Sabin at: sabinm@unaids.org.

Content of the operational guidelines

The Guidelines contain the following sections:

- **A section intended for all levels (national, subnational, service delivery).** This section describes the overall objectives of a comprehensive HIV prevention programme for people who inject drugs. It provides an overview of the key data needed to understand the HIV epidemic in this subpopulation and to assess whether the response adequately addresses the population's needs and ultimately reduces the HIV epidemic. The section introduces the organizing framework¹ used throughout the Guidelines, focusing on eight basic questions in the programme design and management cycle to support evidence-based decision-making.
- **A section focused specifically on the national and subnational levels.** This part describes the specific data needed at the national and subnational level to ensure a comprehensive, effective and efficient HIV programme for people who inject drugs. It discusses detailed data-collection methods to track the epidemic, to monitor progress towards specific targets, and to evaluate whether policies and programmes are positively affecting vulnerability and risk for HIV transmission and reducing the HIV impact. The concrete examples and key tools will help to put in place the necessary data-collection efforts or strengthen already existing M&E systems.

¹ See also UNAIDS, 2007.

- **A section intended for the service delivery level.** This part focuses on specific methods and tools for good programme management, with the aim of providing good-quality services to as many people in need as possible. It also describes which data collected at the national or subnational level may be useful to inform the delivery of services.
- The **tools section** compiles all tools referenced throughout the Guidelines.
- The **appendices** contain a glossary of the M&E terms used throughout the Guidelines and useful reference materials about M&E, including a list of existing indicators.

The following information is presented on each of the eight key questions (also referred to as “steps”) to be addressed by M&E data collection:

- importance and specific objectives of the data to be collected;
- overview of the data-collection methods, data products and their use;
- concise descriptions of how data are collected, including references to specific tools provided in the tools section or in links to additional resources;
- examples of data analysis and data use, where possible.

Intended users of the operational guidelines

The Guidelines are relevant to the following key audiences:

- national and subnational programme managers responsible for HIV programmes for people who inject drugs;
- focal points at the national and subnational level responsible for M&E of the HIV response, including HIV surveillance;
- managers and staff responsible for facility- or community-based services targeting people who inject drugs or serving a range of clients that include people who inject drugs;
- people managing or implementing M&E of services for people who inject drugs;
- people who inject drugs and their interest groups;
- organizations that fund HIV programmes, including international donor agencies.

Using the operational guidelines

The Guidelines address the unique needs of settings where HIV affects people who inject drugs. The Guidelines apply to countries with low-level or concentrated HIV epidemics; they also apply to countries with generalized HIV epidemics. In low-level and concentrated HIV epidemics, it is important to prioritize resources for the populations most infected with and affected by HIV. In generalized epidemics, a broad response is needed but must include effective efforts to reduce high rates of HIV transmission among vulnerable populations, which may include people who inject drugs.

The Guidelines are intended to improve the availability, timeliness and quality of data for decision-making in HIV programmes for people who inject drugs, with a focus on addressing the following key questions: (1) Are we doing the right things? (2) Are we doing them right? (3) Are we doing them on a

large enough scale to reduce the problem? The focus is on the collection and use of data to maximize the positive effects of HIV-related policies and programmes for people who inject drugs.

The Guidelines can be used to:

- review existing M&E data about people who inject drugs, and the policies and programmes that aim to reduce HIV transmission among them, in order to identify important data gaps and implement appropriate methods and tools to address these gaps;
- improve involvement of people who inject drugs in programme planning and M&E;
- prioritize the implementation of M&E activities that provide data for programme improvement;
- improve procedures for data quality assurance;
- improve procedures for timely sharing of relevant data between national, subnational and service delivery levels;
- help analyse, interpret and act on data for programme improvement.

HIV prevention for people who inject drugs, and M&E for programme planning and improvement

Continued need for HIV prevention among people who inject drugs

The 2010 UNAIDS report on the global AIDS epidemic and Mathers et al. (2010) present the most recent regional data and estimates on the HIV epidemic among people who inject drugs:

- **Asia:** It is estimated that as many as 4.5 million people in Asia inject drugs. More than half of these people live in China. India, Pakistan and Viet Nam also have large numbers of people who inject drugs. On average, an estimated 16% of the people who inject drugs are living with HIV, although the prevalence is much higher in some countries (e.g. up to 38% in Myanmar, 30–50% in Thailand, 32–58% in Viet Nam).
- **Caribbean:** In Bermuda and Puerto Rico, unsafe injecting drug use contributes significantly to the spread of HIV. In Puerto Rico, contaminated injecting equipment accounted for about 40% of new infections in males and 27% of new infections in females in 2006.
- **Eastern Europe and central Asia:** An estimated one-quarter of the 3.7 million people who inject drugs in this region are living with HIV, most of whom are men. In the Russian Federation, 37% of the country's estimated 1.8 million people who inject drugs are believed to be living with HIV, compared with 39–50% in Ukraine. The interplay between sex work and injecting drug use is accelerating the spread of HIV in the region. For example, at least 30% of sex workers in the Russian Federation have injected drugs, and the high HIV infection levels found among sex workers in Ukraine (14–31% in various studies) are almost certainly due to the overlap of paid sex and injecting drug use. Sharing contaminated injecting equipment remains a core driver of these epidemics. An estimated 35% of women living with HIV probably acquired the virus through injecting drug use; an additional 50% were probably infected by partners who inject drugs.
- **Middle East and north Africa:** Reliable data on the epidemics in this region remain scarce. The Islamic Republic of Iran is believed to have the largest number of people who inject drugs in the region, and its HIV epidemic is centred mainly within this population. An estimated 14% of people who inject drugs countrywide were living with HIV in 2007. Exposure to contaminated drug-injecting equipment features in the epidemics of Algeria, Egypt, Lebanon, the Libyan Arab Jamahiriya, Morocco, Oman, the Syrian Arab Republic and Tunisia.

- **North America and western and central Europe:** The total number of people living with HIV in these regions continues to grow, but rates of new infections among people who inject drugs have been falling overall, due largely to harm-reduction services. In the Netherlands and Switzerland, for example, HIV infections due to “social” drug use (several people using the same contaminated injecting equipment) have almost been eliminated. At most, 5% of new infections were linked to injecting drug use in 2007 and 2008. The epidemic is also declining among people who inject drugs in north America. Using contaminated drug-injecting equipment can still dramatically accelerate an HIV epidemic, as in Estonia: Hardly any people newly infected with HIV were detected there a decade ago, but within a few years the majority of surveyed people who inject drugs (up to 72%) were living with HIV. There are also flashpoints along the border between Mexico and the United States of America, where intersecting networks of drug use and paid sex appear to drive the spread of HIV. These localized epidemics have considerable potential to grow.
- **Oceania:** Injecting drug use is a minor factor in the epidemics in this region. In parts of Australia, however, injecting drug use is commonly seen in the HIV epidemic among Aboriginal people. HIV infection among Aboriginal and Torres Strait Islander people was attributed to injecting drug use in 22% of cases over the past 5 years. In French Polynesia and Melanesia (excluding Papua New Guinea), people who inject drugs comprise 12% and 6%, respectively, of cumulative HIV case reports.
- **South and central America:** Most of the HIV epidemics in this region are concentrated in and around networks of men who have sex with men, but injecting drug use is the other main route of HIV transmission. It is estimated that as many as 2 million people inject drugs in this region and that more than a quarter of these may be living with HIV.
- **Sub-Saharan Africa:** Injecting drug use is a relatively recent phenomenon in this region, featuring in countries such as Kenya, Mauritius, Nigeria, South Africa and the United Republic of Tanzania. Available research shows high HIV prevalence among people who inject drugs: 36% in Nairobi, 26% in Zanzibar, 12% in South Africa and 10% in the Kano region of Nigeria.

Box 1

Universal access to HIV-related services

People who inject drugs have the right to access high-quality services for HIV prevention, treatment, care and support. Involving people who inject drugs in the planning, delivery and evaluation of HIV-related services ensures a better understanding of the specific dynamics of the HIV epidemic among them and how best to address their needs (WHO, 2009a).

People who inject drugs have the right to access high-quality services for HIV prevention, treatment and care (Box 1). However, few countries currently know the size of the population of people who inject drugs, and few countries know the HIV prevalence among the population in order to estimate service needs. There is also limited information on the implementation of services for the prevention and treatment of HIV infection among people who inject drugs. Few countries monitor the determinants of HIV transmission, and even fewer monitor the coverage and quality of services delivered. Very few countries rigorously assess whether the services actually prevent HIV transmission. In 2008, of 149 low- and middle-income countries, only 41 countries reported systematic surveillance of HIV among people who inject drugs, and only 19 countries reported on coverage of HIV prevention services for people who inject drugs (UNAIDS, 2010a).

The lack of data is problematic, because human suffering associated with HIV and acquired immunodeficiency syndrome (AIDS) and limited resources demand evidence-based programme planning. Continued improvement to maximize programme effects will reduce the epidemic and its impact on people who inject drugs. The Guidelines aim to strengthen data collection, analysis and use.

Making HIV programmes work: Importance of a programme impact pathway

Every programme manager should construct and regularly review the **programme impact pathway** (also referred to as the programme logic model). This should be used for planning, implementation and M&E of the programme. The programme impact pathway draws on existing evidence and on-the-ground experience with what works. It describes the main programme elements and how they are intended to work together to reach measurable objectives deemed important in HIV prevention among people who inject drugs.

The first step in specifying appropriate HIV programmes for people who inject drugs is to identify which of the biological determinants of HIV transmission the programme aims to change. A programme can reduce HIV transmission only if it achieves one or more of the following desired outcomes or changes in the biological determinants:

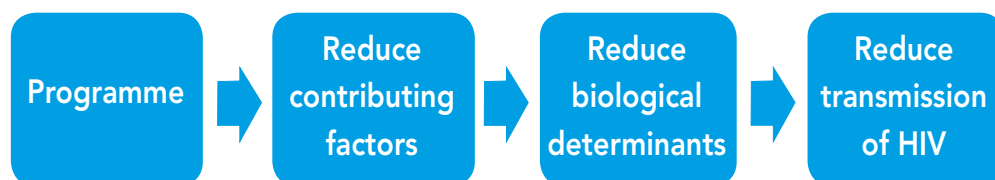
- reduce the number of people who inject drugs;
- reduce the number of young people who start injecting drugs;
- reduce the frequency of injections;
- reduce the use of non-sterile injecting equipment;
- increase the use of sterile injecting equipment;
- reduce the viral load of people who inject drugs who are already infected, including the availability and use of antiretroviral therapy;
- reduce the number of sexual partners of people who inject drugs;
- increase the use of condoms among people who inject drugs;
- increase the effective treatment of sexually transmitted infections.

Some indirect determinants must also be addressed for HIV programmes. Poverty, lack of education and a stigmatizing environment, for example, may make people more vulnerable to or at increased risk for HIV infection. These sociodeterminants need to be clearly understood in order to identify points of intervention to remove barriers to safer behaviour. Sociodeterminants may include:

- restrictive laws and policies;
- stigma and discrimination;
- lack of involvement of people who inject drugs in programme planning and implementation;
- poverty;
- illiteracy;
- lack of social support;
- violence;
- political instability;
- comorbid conditions that affect vulnerability (e.g. poor mental health).

Figure 1 summarizes the causal pathway between programmes and reduced HIV transmission. Programmes aim to remove sociodeterminants that are barriers to achieving the desired outcomes and promote factors that reduce risk behaviours. Effective programmes reduce the biological determinants of HIV transmission and thus prevent new infections.

Figure 1 Causal pathway between programmes and reduced HIV transmission



Although there is strong evidence for the effectiveness of different programme elements in HIV prevention for people who inject drugs, no single programme component is sufficient to reduce HIV transmission at the population level. Programme components not intended to avert HIV infection directly should be integrated with other programmes. This ensures that, together, they are accountable for significantly reducing new HIV infections. There is a need for joint planning at the national and subnational level to ensure that the right mix of interventions is provided in each area in need.

The programme impact pathway for the overall national or subnational HIV programme and the service delivery settings can help to describe the way in which the programme is supposed to run and the results that can be expected, barring unforeseen barriers and changes (i.e. “if all goes as planned”). Any changes in the programme (e.g. changes in funding or shifting priorities) can lead to suboptimal programme implementation and different results from those anticipated. Accurate documentation is important to understand how the programme has worked or not worked. The programme impact pathway can help to identify which data need to be collected throughout the programme.

Need for a comprehensive approach to addressing HIV among people who inject drugs

Reducing the HIV epidemic among people who inject drugs requires a comprehensive approach. The recommended comprehensive package of services endorsed by key organizations (including UNAIDS, UNODC and WHO) includes the following services:

- needle–syringe programmes;
- opioid substitution therapy and other drug-dependence treatment;
- HIV testing and counselling;
- antiretroviral treatment;
- targeted information, education and communication;
- condom promotion for people who inject drugs and their sexual partners;
- prevention and treatment of sexually transmitted infections;
- vaccination, diagnosis and treatment of viral hepatitis;
- prevention, diagnosis and treatment of tuberculosis (TB).

These nine interventions are included in the comprehensive package because they have the greatest impact on HIV prevention and treatment outcomes. There is a wealth of scientific evidence supporting the efficacy of these interventions in preventing the spread of HIV.

In addition, structural and community reforms need to be undertaken to create an environment conducive to successful provision of the recommended services:

- Remove legal barriers to service access and use.
- Train and sensitize service providers to ensure services are user-friendly.
- Conduct community mobilization and ensure participation from people who inject drugs in the planning, delivery and evaluation of services.
- Establish safe spots to ensure that members of the populations that are most at risk can access places staffed by supportive individuals to obtain information about services without fear of being stigmatized.

Such combinations of HIV prevention services are rights-based, evidence-informed and community-owned to meet the HIV needs of the population. Well-designed combination HIV programmes (1) are tailored carefully to national and local needs and conditions; (2) focus resources on a mix of programmatic and policy actions required to address both immediate risks and underlying vulnerability; and (3) are thoughtfully planned and managed to operate synergistically and consistently on multiple levels (i.e. individual, relationship, community, society). Combination HIV programmes mobilize local community, private sector, government and global resources in a collective undertaking; require and benefit from enhanced partnership and coordination; and incorporate mechanisms for learning, capacity-building and flexibility in order to permit continued programme improvement over time (UNAIDS, 2010a).

Figure 2 provides an overview of the programme impact pathway for HIV prevention services for people who inject drugs. Programme managers at national and subnational levels should ensure that people who inject drugs have access to all needed services and in appropriate locations, and that data on inputs, outputs, outcomes and impacts are collected.

Managers at the service delivery level will most likely provide a selection of the services, depending on the delivery setting (e.g. stand-alone, non-clinical setting, clinical setting, outreach setting) and may refer clients to other service delivery sites to obtain additional services that are provided on site. Service providers are responsible for data collection of inputs and outputs, as shown in Figure 3.

Figure 2 National and subnational levels: Programme impact pathway to address HIV among people who inject drugs^a

Problem statement:^b HIV prevalence continues to be high among people who inject drugs and shows regional variation, ranging from 16% in area A to 32% in area D. Consistent condom use with sex workers is reported to be 66%, and condom use at last sex with a regular sex partner is reported to be 23%. Injecting drug use is a criminal offence and 33% of health-care providers report discriminatory attitudes towards people who inject drugs. Interventions with proven effectiveness in increasing service use and reducing risk behaviours have not been implemented fully.

^a External factors that may affect implementation need to be specified as well as assumptions about/evidence for the proposed interventions and their causal linkages.

^b Illustrative data only.

^c The operational definition of the package of services to be provided should be clearly formulated at national level

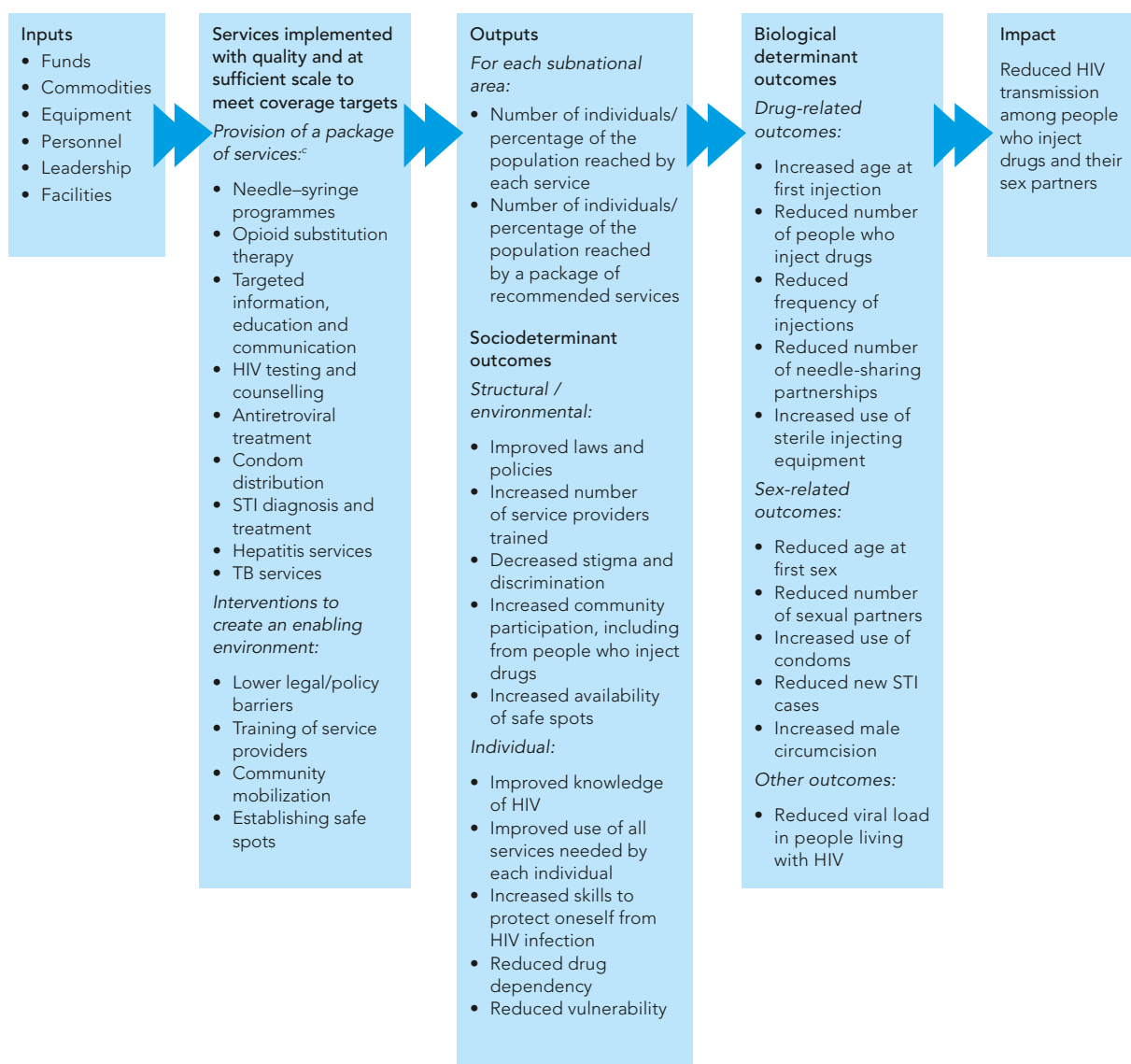
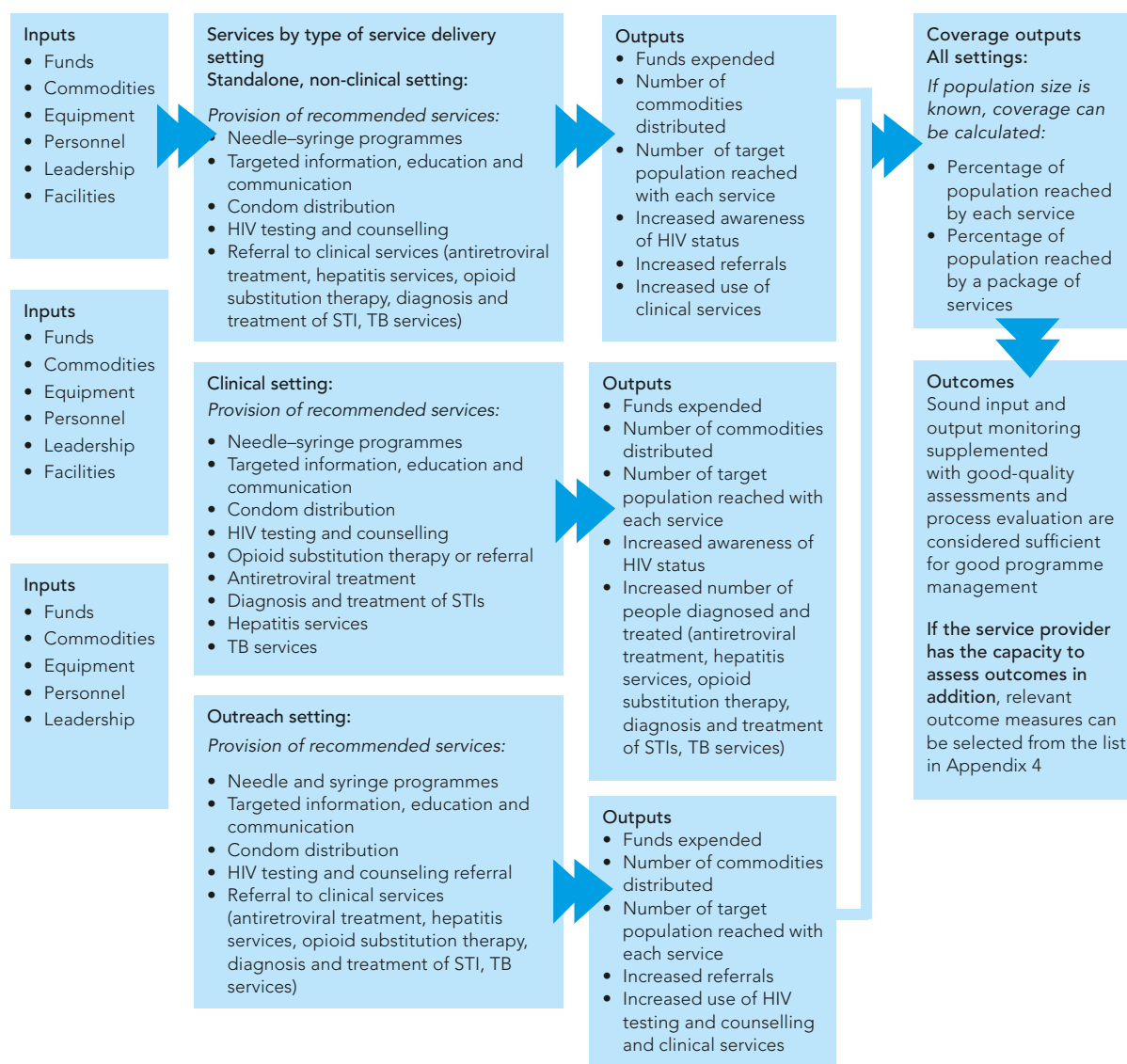


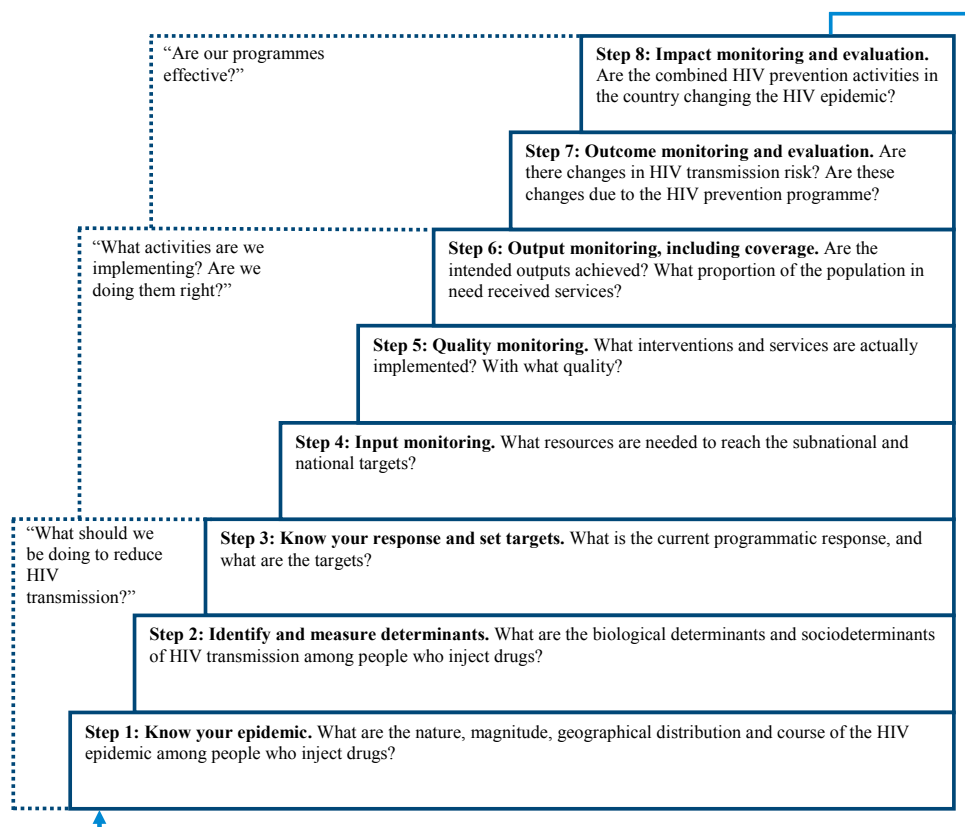
Figure 3 Service delivery level: Programme impact pathway for HIV-related services for people who inject drugs by delivery setting



Plan, monitor, evaluate: Who needs to do what?

The Guidelines use the public health questions approach to HIV M&E (see Figure 4) as the guiding framework to identify data needs and data collection efforts. Good evidence is already available from evaluation studies on the positive effects of different programme elements (e.g. needle-syringe programmes) on changing behaviours or preventing HIV transmission among people who inject drugs. Consequently, these programme elements must be scaled up in an integrated way to address the various needs of the target population, with good quality and high coverage, and to assess whether the combined effects of all programmes are achieving, or continue to achieve, their intended ultimate effect of reducing HIV transmission.

Figure 4 Public health questions approach to HIV monitoring and evaluation among people who inject drugs



A strategic and phased approach is needed to support HIV prevention for people who inject drugs. Not everything can be done at once, and not everyone or every level needs to conduct all aspects of M&E. The roles and responsibilities of programme managers at the national and subnational level are different from those at the service delivery level. These specific roles and responsibilities are indicated below and explained in detail throughout the Guidelines; they are also the reason for providing operational guidance specifically for each level. Even if programme managers do not collect the data, they must still understand what data are needed in order to guide the selection of appropriate M&E methods, to provide oversight of their implementation, and to use the data for programme improvement. Programme managers at different levels do not work in isolation but contribute to the same overall programme and programme objectives.

Plan: What should we be doing to reduce HIV transmission among people who inject drugs?

Steps 1–3 obtain necessary information for planning the intervention response and setting targets at the national, subnational and service delivery level. Objectives are to:

- describe the epidemiology of the HIV epidemic among people who inject drugs in the country;
- identify the factors that increase HIV transmission, including environmental factors;
- identify differences in HIV rates in different subnational areas;
- estimate the number of people who inject drugs in each subnational area;
- estimate baseline outcome and impact indicators and set targets;
- specify the services required in each subnational area to achieve targets.

The national and subnational levels are usually responsible for collecting data to understand the epidemic and sociodeterminants. Service providers need to use these data to be able to plan and set targets for their service provision.

Monitor: What services and interventions are we implementing? Are we implementing them right?

Steps 4–6 describe how to implement a system to monitor programmes at the national, subnational and service delivery level. Objectives are to:

- assess whether programme inputs are adequate to meet output targets;
- document the outputs achieved;
- estimate the proportion of people who inject drugs that access services;
- assess the quality of the services that are provided.

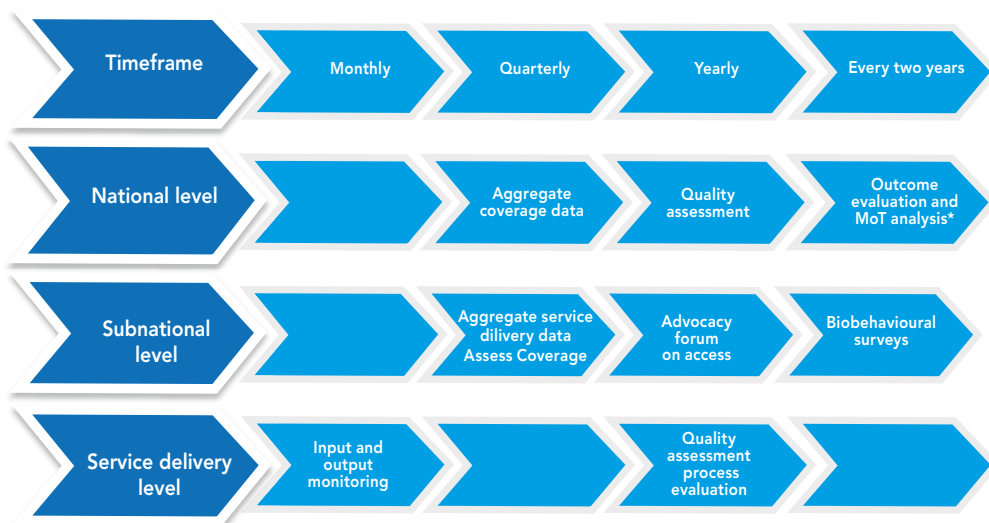
Evaluate: Are our programmes effective?

Steps 7–8 describe how to evaluate whether a prevention programme has indeed prevented HIV transmission at the national and subnational level. Objectives are to:

- analyse and interpret data collected from routine monitoring at the service delivery level and from targeted integrated biobehavioural surveys;
- synthesize the findings with specific recommendations that can be used for programme planning, resource allocation and programme improvement.

Figure 5 illustrates a possible timeframe for the different M&E activities. This M&E cycle should be coordinated with the country's programme planning and implementation cycle so data are available in a timely fashion to support evidence-based decision-making.

Figure 5 Proposed timeframe for conducting M&E activities at each level



Ensuring ethical conduct

Ethical conduct and regard for the welfare of people involved in M&E activities and people affected by their results are of utmost importance. M&E must generate useful information, while ensuring the available data do not worsen discrimination and stigma towards people who are living with HIV (De Lay and Manda, 2004).

Protection of participants should be exercised when conducting any M&E, surveillance or research activities. Special protection is warranted when key populations are involved. These populations may already be socially vulnerable or marginalized for their behaviours. Data-collection efforts that identify or bring attention to these populations may place them at additional risk. For example, in many countries, it is not possible to admit to drug use without increasing the risk of being incarcerated.

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 the 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 oneself is an aspect of autonomy. Some common procedures that ensure that these principles are achieved include informed consent (see Box 2), safeguards of private information, and protection of human subjects review by an institution authorized to do so.

Box 2

Key elements of informed consent

Informed consent should include:

- an explanation of the purpose of the project or study, with a description of the procedures involved;
 - a description of the foreseeable risks or discomforts to the participants;
 - a description of any compensation to be given;
 - an explanation of whom to contact with questions;
 - a statement of any benefits to the participants;
 - a statement about the confidentiality of records.
-

Procedures must be used to ensure the confidentiality and protection of private information. These procedures 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. The Guidelines recommend the use of a unique identifier code 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 use.

In some cases, M&E activities may require a formal review of the protection of the rights of human subjects. Data-collection activities that are classified as research require a review by qualified individuals or institutions to ensure that the study protocol and procedures will protect the rights of human subjects.

Participatory approach to service planning, delivery and M&E

Participation of stakeholders (individuals, groups or communities with a stake or vested interest in the programme) is crucial. The participation of people who inject drugs in the planning, delivery and M&E of services requires special attention and continued effort. The Guidelines recommend involving the target population in obtaining information and providing feedback to ensure that services are provided in the most appropriate locations, are user-friendly and serve the population's needs. Often, people who inject drugs are also peers in the delivery of services, especially in outreach settings.

Ensuring meaningful participation of people who inject drugs is not clear in all contexts. It is necessary to better document how this can be done and to learn from each other's experiences.

Selecting appropriate indicators

Indicators provide critical information about programme performance. If the indicators are not selected strategically, however, they may be of limited value or too many resources may be required to collect them. Indicators should generate data that are needed and useful. A useful indicator tells programme managers that their programme works or needs to be changed to better meet its objectives. Indicators should be chosen that provide credible data. Indicators are often part of an indicator set that measures different elements of a programme to describe the extent to which the programme is achieving its objectives. Typically, it is best to start with a few indicators that provide key information about the programme, that can be well defined so that they can be collected in a standardized manner and with good quality, and that can be measured repeatedly to provide trends over time. Once the basics are in place, additional indicators may be added, if needed, and as resources and capacity permit.

Throughout the Guidelines, specific recommendations are made to help with the selection of appropriate indicators. Annex 2 lists indicators that can be used at the national, subnational or service delivery level. As the focus of the Guidelines is primarily on HIV prevention, indicators for treatment, care and support programmes are not included here. M&E of individuals enrolled in HIV care and treatment programmes should follow existing national programme protocols.

United Nations General Assembly Special Session on HIV/AIDS (UNGASS) indicators need to be part of the national indicator set. All countries signed the Declaration of Commitment on HIV/AIDS in 2001, thus agreeing to provide biennial progress reports. All countries should also track indicators of national commitment, such as HIV-related expenditure and national strategies, policies and laws focused on the needs of populations that are most at risk in general, and the needs of people who inject drugs in particular. In accordance with the “Three Ones” principles (UNAIDS, 2005, 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 the existing global AIDS indicator set from 2011, previously referred to as UNGASS national and programme-specific indicator sets, rather than developing new indicators.

Ensuring data exchange between the national, subnational and service delivery levels

Although the different programmatic levels have different roles and responsibilities for collecting data, they are interdependent. The national and subnational levels need to share information about the course of the epidemic with service providers for them to be able to target services appropriately. Service providers need to share information about the reach and quality of the services provided so that the national and subnational levels can ensure a comprehensive and coordinated response.

Some of this information is reported regularly (e.g. monthly or quarterly) by all service providers to subnational levels, which then report to the national level. Feedback on progress made toward set targets and on data quality (as needed) is then given. Box 3 lists the information needed for each service site that helps to determine whether there is a reasonable match between the needs for services and the services actually provided.

Box 3**Minimum information and indicator data about service delivery for regular reporting to the subnational level**

Subnational area:	
Name and physical address of service delivery site	
Period covered by this report (month or quarter)	From (date): To (date):
Type of service delivery site	
Services provided in past month (tick all that apply)	Needle-syringe programme Opioid substitution therapy Targeted information, education and communication HIV testing and counselling Antiretroviral treatment Condom distribution Diagnosis and treatment of sexually transmitted infections Viral hepatitis services TB services Referral to HIV testing and counselling Referral to clinical services
For each service provided, number of individuals receiving each service in past month/quarter	Needle-syringe programme Opioid substitution therapy Targeted information, education and communication HIV testing and counselling Antiretroviral treatment Condom distribution Diagnosis and treatment of sexually transmitted infections Viral hepatitis services TB services Referral to HIV testing and counselling Referral to clinical services
If available	Number of individuals that are first-time visitors Number of individuals that are repeat visitors
Comments	Service delivery issues Data-collection issues

Additional resources: HIV prevention, M&E and related indicators

Ball A et al. WHO evidence for action for HIV prevention, treatment and care among injecting drug users. *International Journal of Drug Policy*, 2005, 16(Suppl 1):S1–S6.

De Lay P, Manda V. Politics of monitoring and evaluation: Lessons from the AIDS epidemic. In: Rugg D et al., eds. *Global advances in HIV/AIDS monitoring and evaluation: New directions for evaluation*. San Francisco, CA, Jossey-Bass, 2004: 13–31.

Guidelines for intensifying HIV prevention: Towards universal access. Geneva, Joint United Nations Programme on HIV/AIDS, 2007.

A framework for monitoring and evaluating HIV prevention programmes for most-at-risk populations. Geneva, Joint United Nations Programme on HIV/AIDS, 2007.

Glossary of M&E terminology. Geneva, M&E Reference Group, Joint United Nations Programme on HIV/AIDS, 2008.

Organizing framework for a functional national M&E system. Geneva, M&E Reference Group, Joint United Nations Programme on HIV/AIDS, 2008.

Guidance on capacity-building for HIV monitoring and evaluation. Geneva, M&E Reference Group, Joint United Nations Programme on HIV/AIDS, 2009.

Basic terminology and frameworks for monitoring and evaluation. Geneva, Joint United Nations Programme on HIV/AIDS, 2010.

UNAIDS report on the global AIDS epidemic. Geneva, Joint United Nations Programme on HIV/AIDS, 2010.

An introduction to indicators. Geneva, Joint United Nations Programme on HIV/AIDS, 2010.

Mathers B et al. HIV prevention, treatment, and care for people who inject drugs: A systematic review of global, regional, and national coverage. *Lancet*, 2010, 375:1014–1028.

Rugg D et al. *Global advances in HIV/AIDS monitoring and evaluation: New directions for evaluation*. San Francisco, CA, Jossey-Bass, 2004.

WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users. Geneva, World Health Organization, 2009.

Monitoring and evaluation at the service delivery level

Step 1: Know your epidemic. Is injecting drug use a problem in the local area? What percentage of people who inject drugs are living with HIV?

Overview

Rationale: Why is this step important?

People who inject drugs are often a hidden population. Many are young, homeless and estranged from their families. Without a concerted effort to uncover and address the problem of injecting drug use, unknown local HIV epidemics will continue to affect many lives. In this step, a local investigation of the size, scope and geographical distribution of the HIV epidemic among people who inject drugs is undertaken as the first step in formulating a local response. Note that the term “local area” refers to the “catchment area” of a specific service provider.

Objectives: What will this step help you do?

- Describe the problem of injecting drug use in the country.
- Define the population of people who inject drugs that will be used in M&E.
- Describe the HIV epidemic among people who inject drugs.
- Describe the geographical distribution and the size of the population of people who inject drugs.

Figure 6 Step 1: Know your epidemic

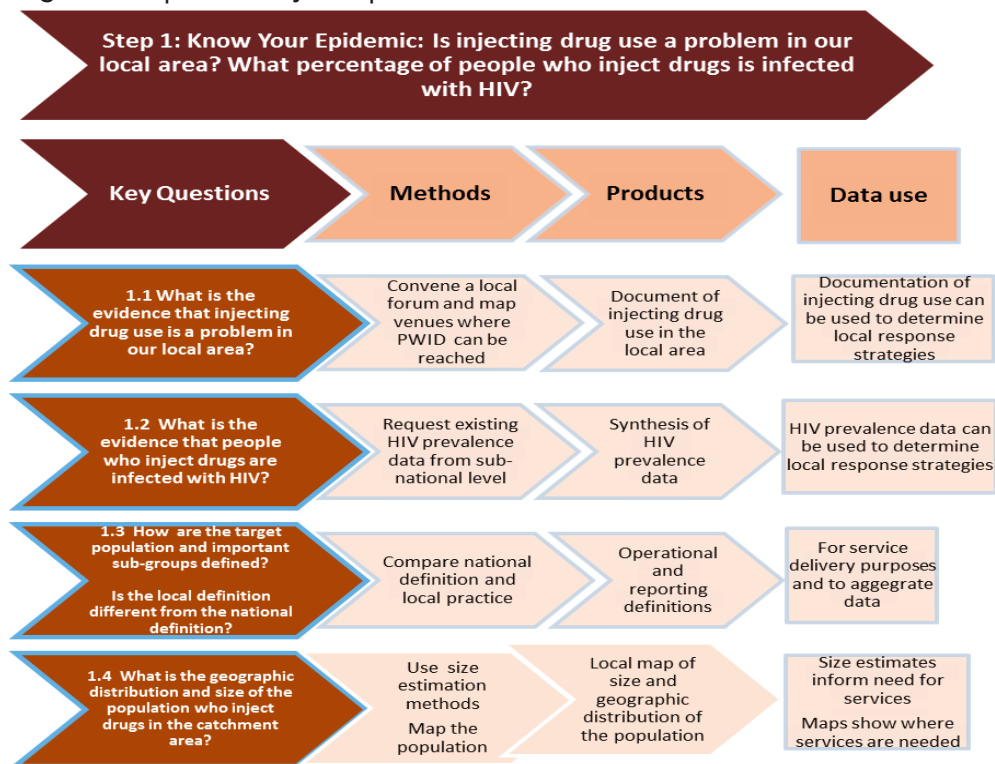
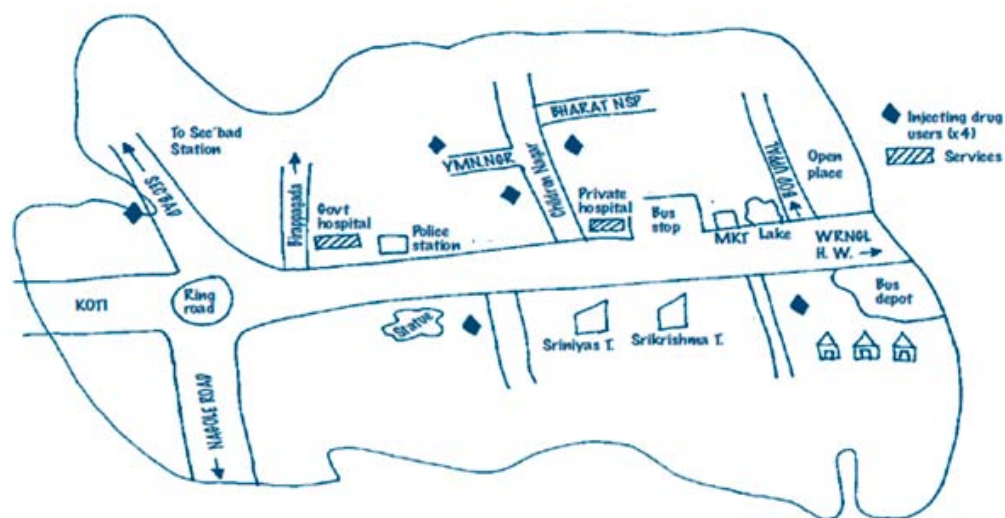


Figure 7 Example of a local map of where people who inject drugs are found

Source: International HIV/AIDS Alliance (2009).



How to answer key questions

1.1 What is the evidence that injecting drug use is a problem in the local area?

Products

Documentation of injecting drug use in the country

Documentation of the problem of injecting drug use in the local area includes a description of what is known about injecting drug use and a map of where people who inject drugs are found (see Figure 7).

Methods

Convene a local forum and map venues of where to reach people who inject drugs

It is useful to convene a local forum of people from a variety of disciplines, perspectives and experiences to discuss the extent of the injecting drug use problem in the local area. Information from such a forum can be used to map venues of where to reach people who inject drugs. It can also identify organizations to help with HIV prevention efforts.

The following questions should be addressed during the forum:

- Is injecting drug use a problem in the area?
- What is the evidence that injecting drug use is a problem?
- Which drugs are injected?
- How many people inject drugs?
- What is the evidence that there is an HIV epidemic among people who inject drugs in the local area?
- What information is available from the police, from health-care providers and from other sources?

Local maps are extremely useful. The following is the Priorities for Local AIDS Control Efforts (PLACE) strategy for mapping local venues of where to reach people who inject drugs:

- Ask a variety of local people where to reach people who inject drugs. Ask people who are likely to know how to reach the target population, such as street vendors, unemployed youths and taxi drivers.
- Visit and map all of the places named.
- Ask people socializing at these locations about their behaviour, whether they inject drugs, and any other locations where people who inject drugs can be reached.
- Determine whether the venue would be suitable for outreach activities.
- Map the locations of each place on hand-drawn maps or use global positioning equipment and digital maps or photos. Geographical data from global positioning system (GPS) units can be displayed using free software.

Local maps summarizing the size of the population in the area can inform target-setting for service delivery and decisions about where to commit resources. Hand-drawn maps are sufficient, but digital maps allow additional information to be added as it becomes available. For example, information on the location of service delivery sites can illustrate whether the services are available in the areas with a large number of people who inject drugs. Figure 8 is an example of a map created using a global positioning system.

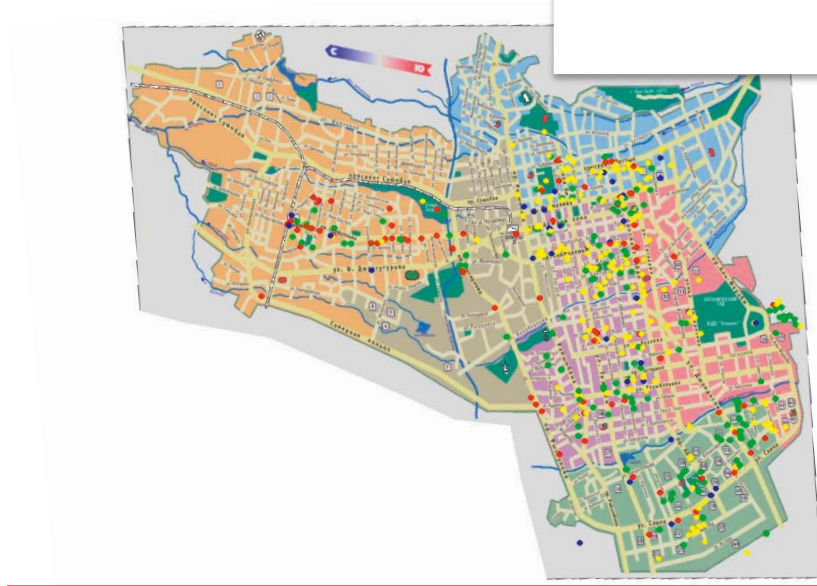
Data use

Documentation of injecting drug use in the local area can be used to determine local response strategies.

Figure 8 Example of a map from a PLACE study with known information about the location of people who inject drugs and the locations where sex work occurs

- Sex work and injecting drug use site
- Injecting drug use site
- Sex work site
- Neither injecting drug use nor sex work

Source: MEASURE Evaluation.



1.2 What is the evidence that people who inject drugs are infected with HIV?

Products

Synthesis of existing HIV prevalence data

Methods

Request information on HIV prevalence from national and subnational AIDS control programmes for people who inject drugs, including key populations at higher risk for HIV needing prevention programmes at the local level

Information is often available at the national or subnational level that is also useful at the local level. The following should be requested:

- national and subnational HIV prevalence estimates and local areas (if available);
- HIV prevalence among men, women, people younger than 25 years and people aged 25 years and older;
- copies of all reports about HIV infection among people who inject drugs;
- information about effective HIV prevention programmes;
- information about national HIV prevention targets for populations most at risk;
- important information gaps.

Web sites of relevant international organizations, such as UNAIDS, UNODC and WHO, are another good source of information for HIV infection among people who inject drugs in the country.

1.3 How do service providers define their target population? What key populations at higher risk of HIV need services? Are the local definitions different from the national definitions?

Tool 10 provides a table shell which can be modified to record the information about HIV prevalence among known most-at-risk populations in the local service delivery area, the sub-national area and nationally.

There are important differences among people who inject drugs. Prevention strategies must be tailored to these differences. The mapping exercise can provide insight into these differences.

Particular groups of people who inject drugs may include:

- young people who are experimenting with drug injection for the first time;
- women who sell or exchange sex for money to pay for injectable drugs;
- homeless people who may have been injecting drugs for a long time;
- people recently released from prisons and other closed settings;
- recent migrants who inject drugs.

Products

National definition of the target population for standardized reporting

Regardless of how the target population in the catchment area is defined, service providers use the national definition for reporting key data to the subnational and national levels. Ideally, the national definition is identical to the international standard definition for the population of people who inject drugs – that is, “those who have self-injected drugs at any time within the past 12 months”. This definition excludes people who self-inject medicines for medical purposes. The definition does not discriminate between people based on the type of drug injected, sex or age.

Methods

Compare national definitions and local practice

A clear definition of the target population must be used to monitor service delivery programmes. This definition needs to be used over time to compare data and analyse trends. The definitions used for monitoring may be different from the definitions used for programming, but the use of standardized indicators (including standard definitions of the target population) allows aggregation of indicator data at the national and subnational level.

Key indicators should be monitored for the following subgroups of people who inject drugs:

- men aged 15–24 years;
- men aged 25 years and older;
- women aged 15–24 years;
- women aged 25 years and older;
- women who engage in sex work.

These groups of people are most frequently monitored at the national level. The national level relies on service providers to report their progress related to these groups.

Service providers may choose to monitor additional subgroups that are important to the local epidemic. If local definitions are used for service delivery purposes, service providers should still be able to measure and report progress using indicators according to the nationally agreed definitions.

1.4 What is the distribution and size of the population who injects drugs in the catchment area?

Products

Local map of the geographical distribution of the population, including population size estimates

Methods

Use crude size estimation methods

At the very least, it is necessary to have crude estimates of the size of the target population. Methods not requiring a population survey include the following:

- Count the number of individuals reached by the service provider in a month and divide this number by the estimated percentage of the population reached by the provider. For example, if the service provider reached 2000 people and estimates that this accounts for 50% of all injectors in their catchment area, then an estimated 4000 injectors received services.
- Estimate the number of people who inject at each venue identified during the mapping and add up the total.

Each method has its pitfalls and is subject to bias. Good size estimates are the responsibility of the national and subnational levels, but in the absence of information from the national or subnational level, service delivery providers should use the crude methods outlined above. It is important to meet with service providers from other subnational areas to discuss size estimation issues and to share experiences and data on the size of the population.

The importance of size estimates cannot be overstated. Size estimates are used to determine funding requirements (see Step 4), to monitor service coverage (see Step 6) and to assess programme effectiveness (see Step 7).

Additional resources

Conducting size estimates

Guidelines for second generation HIV surveillance: An update. Geneva, Joint United Nations Programme on HIV/AIDS, 2009.

Estimating the size of populations with high risk for HIV infection. Geneva, Joint United Nations Programme on HIV/AIDS, 2010.

Further information and guidance on mapping people who inject drugs:

All together now! Hove, United Kingdom, AIDS Alliance, 2009 (<http://www.aidsalliance.org/publicationsdetails.aspx?id=228>).

Geographic information systems. Chapel Hill, NC, MEASURE Evaluation (<http://www.cpc.unc.edu/measure/tools/monitoring-evaluation-systems/geographic-information-systems>).

Priorities for local AIDS control efforts (PLACE): A manual for implementing the PLACE method. Chapel Hill, NC, Carolina Population Centre, University of North Carolina at Chapel Hill, 2005.

Step 2: Identify and measure determinants. What are the biological determinants and the sociodeterminants of HIV transmission among people who inject drugs in the local area?

Overview

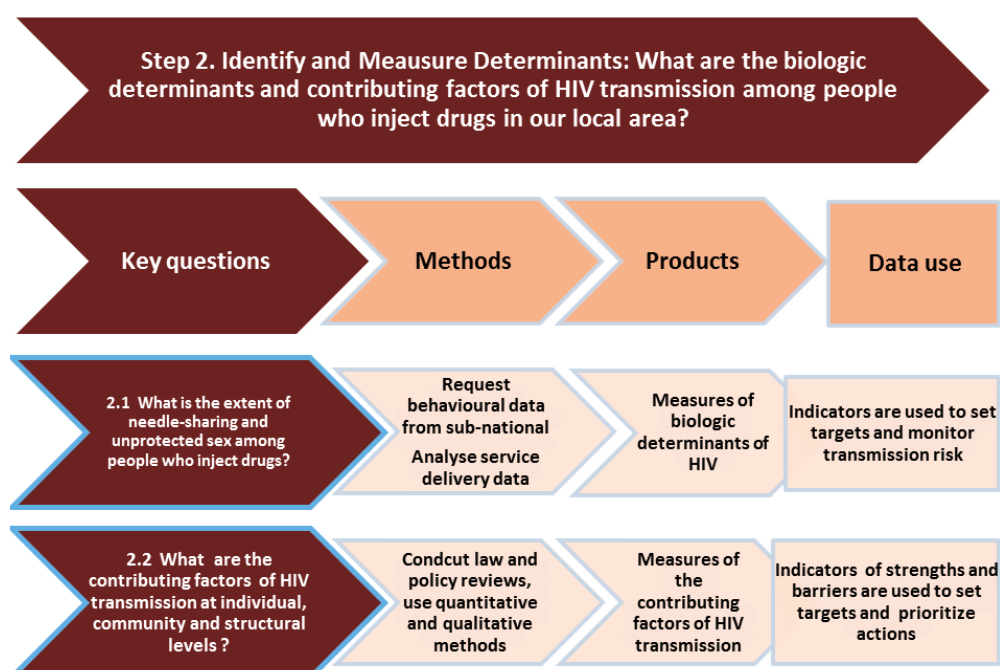
Rationale: Why is this step important?

This step explains why some people are at higher risk or more vulnerable to HIV infection than others. These determinants can be biological such as using non-sterile injecting equipment or having unprotected sex. Determinants also include underlying factors such as policies, laws and social norms. HIV prevention programmes must address these determinants in order to have an effect on the HIV epidemic among people who inject drugs.

Objectives: What does this step help you do?

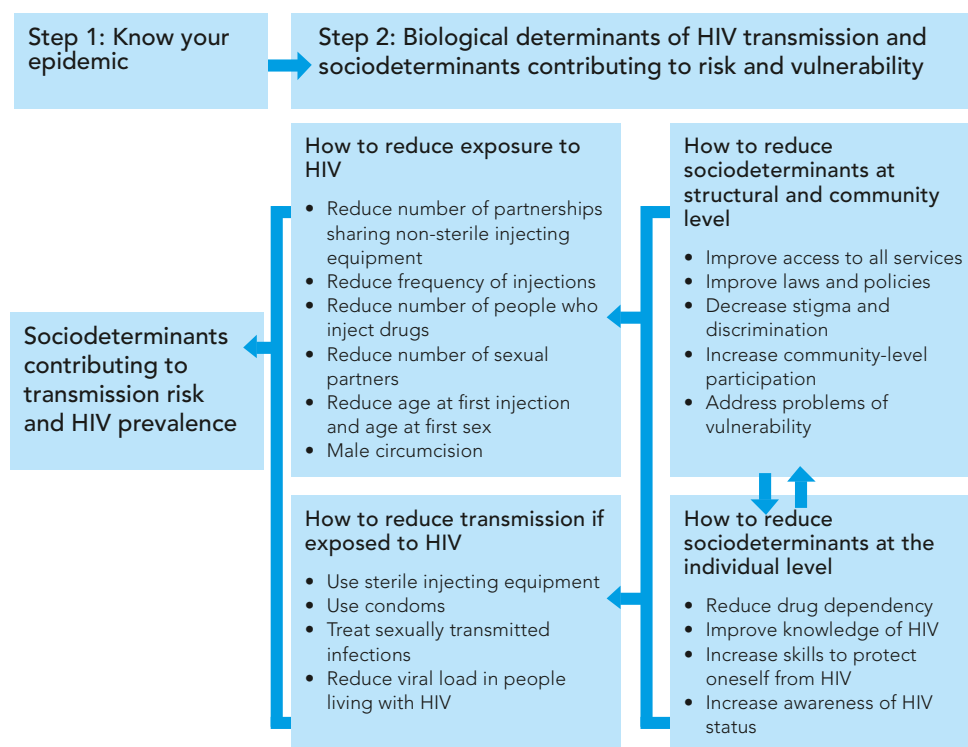
- Compile data on the biological determinants of the HIV epidemic among people who inject drugs (i.e. outcome and impact indicators).
- Identify the barriers to people who inject drugs in accessing services at the local level.
- Identify strengths in the local community and context that can be used to improve HIV prevention efforts for people who inject drugs.

Figure 9 Step 2: Identify and measure determinants



According to the causal pathway, HIV programmes will not reduce HIV transmission unless they reduce exposure to the virus or reduce transmission after exposure. Figure 12 shows ways to reduce exposure (e.g. by reducing the number of people who inject drugs) and ways to reduce HIV transmission after exposure (e.g. by using sterile injecting equipment). Also shown are other strategies to reduce contributing or underlying factors that influence risk and vulnerability for HIV transmission.

Figure10 Biological and contributing sociodeterminants of HIV transmission



How to answer key questions

2.1 What are the biological determinants of HIV transmission among people who inject drugs? What is the extent of use of non-sterile injecting equipment, multiple partnerships and unprotected sex among people who inject drugs?

Products

Measures of the biological determinants of HIV transmission (survey or client data)

Methods

Request behavioural data from subnational level on use of non-sterile injecting equipment and condoms

Information is collected on what is known about the behaviours of key populations at higher risk of HIV. The key to reducing HIV transmission among people who inject drugs is to reduce the frequency of the following behaviours:

- the number of injections where non-sterile injecting equipment is shared;
- the number of people with whom non-sterile injecting equipment is shared;
- the number of people injecting drugs;
- the frequency of sex without condoms among people who inject drugs.

Data about these behaviours can be obtained through a survey of people who inject drugs. Service providers usually do not conduct population-based surveys, but they can request available survey data from the national government. Service providers should also request that surveys are conducted regularly to obtain trend data; this informs service providers of the overall progress made.

Analyse service delivery data

Service providers routinely collect basic information from their clients (see Tool 8). Some service providers also have the capacity to collect more detailed information from every client at each visit, including information about specific behaviours (see Tool 7, Assessment C), or to gather additional information through a periodic brief survey of their clients.

Analysis of service delivery data helps not only to manage services (see Step 5) but also to identify key populations at higher risk of HIV. Obtaining further information from these subgroups may reveal factors contributing to the higher rates of risk behaviour, which can then be further explored and addressed.

Data use

Measures of biological determinants of HIV transmission can be used to develop appropriate programme strategies at the local level. Box 4

2.2 What are the sociodeterminants of HIV transmission among people who inject drugs? What are the local barriers to HIV prevention for people who inject drugs? What local strengths can be harnessed for HIV prevention?

Products

Structural, community and individual factors that contribute to HIV transmission risk

Methods

Conduct law and policy reviews, and use qualitative and quantitative methods

Service delivery providers may want to identify local barriers and strengths for HIV prevention. Barriers can occur at the structural level, the community level and the individual level. Some barriers may affect the entire country, such as laws that prevent needles and syringes from being exchanged or stigma against people who inject drugs. Many barriers, however, are local and may include lack of training of medical providers in issues specifically related to injecting drug use, law enforcement activities by the police, or how drugs are distributed in the community. The following questions may be helpful in identifying barriers and strengths:

- What policies or regulations influence the use of needle-syringe programmes by people who inject drugs? Which of these can be changed locally?
- Where are services available? Are they used? Why or why not?

- What factors are associated with high use and low use of services?
- What factors influence first-time drug injections?
- What factors influence patterns of risk behaviour?
- What is the organizational structure of the drug production and delivery, and how does this influence the behaviour of people who inject drugs?
- What characteristics of the physical locations and social drug-using networks influence negative patterns of drug use and other risk behaviours?
- How do the beliefs and value systems of the community in which people who inject drugs live influence the development of health policy and interventions?
- Is lack of knowledge a barrier to using sterile injecting equipment?
- How does the individual's degree of dependence or severity of withdrawal syndrome influence his or her patterns of drug use and risk behaviour?
- How does the individual's use of multiple drugs, including alcohol, influence his or her patterns of drug use and risk behaviour?
- How does the individual's knowledge or lack of knowledge about his or her HIV status influence his or her patterns of drug use and risk behaviour?
- How does the individual's mental health influence his or her patterns of drug use and risk behaviour?

Information on barriers and strengths can be obtained using various methods, including:

- law and policy reviews (e.g. on criminalization of drug use);
- observations (e.g. observing the attitudes of health-care providers dealing with people who inject drugs);
- focus group discussions (e.g. on discrimination experienced by people living with HIV in the local community);
- in-depth individual interviews (e.g. on personal barriers to accessing HIV-related services);
- short questionnaires asking the following questions:
 - what is the source of the drugs?
 - where do people use drugs?
 - what is the culture of drug injection?
 - what different groups use drugs?
 - where can the different groups be reached?
 - how many men and how many women inject drugs?
 - why do people start injecting drugs?
 - is the sharing of non-sterile injecting equipment common? If so, under what conditions?
 - do people use sterile injecting equipment? Where can people get clean syringes?
 - how many people known to be living with HIV have a history of injecting drugs?
 - what is the prevalence of HIV infection among people who inject drugs?
 - is there a link between sex work and injecting drugs?

A checklist may be used to record key information about barriers and strengths and to document the sociodeterminants in detail (see Table 1).

Table 1

Checklist of structural, community and individual factors (sociodeterminants) contributing to HIV transmission risk among people who inject drugs

Factor	Barrier	Strength
Structural-level contributing factors		
Laws and policies targeting people who inject drugs and their behaviours		
Economic systems depriving people of meaningful employment opportunities		
Adverse and unintended effects of drug policies		
Stigma and discrimination		
Public health policies and availability of HIV services for people who inject drugs		
Degree of urbanization		
Social- and community-level contributing factors		
Social norms, beliefs and values within communities with regard to injecting drug use		
Availability of community-based outreach, including peer education through networks of people who inject drugs		
Setting and physical environment in which drugs are injected		
Community responses and availability of support		
Injecting drug-using networks		
Individual- and peer-level contributing factors		
Lack of awareness about risks of injecting drug use and HIV transmission		
Degree of drug dependence and severity of withdrawal syndrome		
"Poly-drug use" – use of other illicit drugs, including alcohol		
Knowledge of HIV status		
Mental health		

Note: It is important to explain all items ticked in order to obtain a better understanding of the current situation.

Data use

Monitoring barriers to service delivery can assist in designing interventions to effectively target these barriers. Likewise, identifying and tracking individual, community and structural strengths can be used to increase the availability, access and effectiveness of HIV prevention services.

Additional resources: Further guidance on identifying sociodeterminants

National Composite Policy Index. In: *Guidelines on construction of core indicators: 2010 reporting*. Geneva, Joint United Nations Programme on HIV/AIDS, 2010 (http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/manual/2009/jc1676_core_indicators_2009_en.pdf) [please note 2011 guidelines are forthcoming].

Poundstone KE et al. The social epidemiology of human immunodeficiency virus/acquired immunodeficiency syndrome. *Epidemiologic Reviews*, 2004, 26:22–35.

Policy and programming guide for HIV/AIDS prevention and care among people who inject drugs. Geneva, World Health Organization, 2005 (<http://www.who.int/hiv/pub/idu/en/>).

Step 3: Know your response and set targets. How does the local service delivery fit into the national and subnational HIV prevention response? What are the service delivery targets?

Overview

Rationale: Why is this step important?

In this step, service providers put the national strategy into action at the local level by defining local service delivery targets that contribute to achieving subnational and national targets.

Objectives: What will this step help you do?

- Review the nationally recommended package of services and identify gaps in local services.
- Determine which services to provide, and where.
- Specify output targets for each service and for the package of services

The package of recommended services for people who inject drugs is discussed in the introduction. A more complete description is provided in the Target setting guide.

How to answer key questions

3.1 Based on the local epidemic, what services are needed to prevent HIV transmission among people who inject drugs in the catchment area?

Products

Defined services and package of services

Each service provided should be described, including (1) how the service is defined, (2) with what frequency the services are provided, and (3) what constitutes having received the service. The recommended comprehensive package of services for people who inject drugs is presented in Box 4. As some countries will not be able to provide all nine services, the national minimum package of services to be provided to each client should be agreed and clearly defined at the national level and implemented at the local level. This is important for planning service delivery and also for monitoring (e.g. such as data collection and reporting on who should be counted as “reached with HIV prevention package”).

Box 4

Recommended comprehensive package of services for people who inject drugs

The recommended comprehensive package of services for people who inject drugs includes:

- needle-syringe programme;
- opioid substitution therapy or other drug-dependence treatment;
- HIV testing and counselling;
- antiretroviral therapy;
- targeted information, education and communication for people who inject drugs and their sexual partners;
- prevention and treatment of sexually transmitted infections;
- condom promotion programme for people who inject drugs and their sexual partners;
- vaccination, diagnosis and treatment of viral hepatitis;
- prevention, diagnosis and treatment of TB.

This should be supported by:

- addressing legal barriers;
 - training and sensitization of service providers;
 - community mobilization;
 - establishing safe spots in the community.
-

Figure 11 Step 3: Know your response and set targets



Methods

Conduct strategic response planning

It is important to meet with the local HIV control programme to learn about the package of services and activities recommended at the national level (see Box 4) and the recommended indicators for monitoring these services. Liaison with other providers is important to gain information about services delivered elsewhere. Resources from the Ministry of Health or the HIV control programme should be used to coordinate service delivery efforts within catchment areas and identify gaps in services.

Meetings with members of the target group help to mobilize community support and ensure services reflect the needs of the population. This can be done by contacting NGOs, visiting prisons, making connections with gatekeepers to the population, and visiting locations where people who inject drugs meet. In-depth interviews and focus group discussions should be conducted on topics related to the welfare of the target group to better understand them and learn about the adequacy of the response in an area.

Data use

The definition of each service and the package of services to be provided are used to set priorities for the local HIV prevention response for people who inject drugs.

Additional resources: Strategic response planning

WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users. Geneva, World Health Organization, 2009.

3.2 What services are currently provided?

Products

Service availability map

Mapping the location of existing services reveals gaps in geographical coverage and aids target-setting.

Methods

Conduct stakeholder meetings to map services currently provided

Service availability mapping can be done by bringing together knowledgeable people to list the HIV prevention services available for people who inject drugs in the different catchment areas. Reviewing which of these services have data can lead to a better understanding of the local epidemics.

Data use

Service availability maps are used to identify service gaps that need to be addressed.

Additional resources: Service availability mapping

Maps and spatial information technologies (Geographical Information Systems) in health and environment decision-making. Geneva, World Health Organization (<http://www.who.int/heli/tools/maps/en/index.html>).

Service Availability Mapping (SAM). Geneva, World Health Organization, 2011 (<http://www.who.int/healthinfo/systems/serviceavailabilitymapping/en/index.html>).

Health statistics and health information systems. Geneva, World Health Organization, 2011 (<http://www.who.int/evidence/en/>).

3.3 What are the 1-year targets for output and coverage indicators in the local catchment area?

Products

Targets for output and coverage indicators

Methods

Use target-setting methods

Target-setting is a collaborative process. It requires input from a range of stakeholders to ensure targets are set on the best available evidence, are agreed upon and are understood.

The following are tips for target-setting may be helpful (see also the Target setting guide):

- Targets should reflect programme strategies that tailor the response to the local epidemic.
- Targets should be set based on baseline measures of the key indicators selected. Use the indicators described in Annex 2 as these are all feasible to measure. If baseline data are not yet available, use the best possible judgement for defining targets.
- For each indicator, set a monthly target based on what change from the baseline measure can be achieved over the next year with the available funding and resources. The monthly target can be used to monitor progress regularly (see Step 6).
- Targets should be set for quality of services. Service quality is typically assessed through more than just a handful of indicators (see Step 5), so targets will need to be set on indicators considered to flag areas of quality that are most important.

No universal formula for target-setting exists. Limited evidence is available to assist in defining minimum levels of coverage or thresholds required for services to achieve a desired impact. Many factors affect the extent of HIV risk behaviours and levels of HIV transmission among people who inject drugs. These factors influence the minimum level of coverage required in a given context. Mathematical modelling has shown that the earlier an intervention is introduced in an epidemic, the more effective it can be in controlling the spread of HIV. Useful targets are set by acknowledging that greater levels of coverage are clearly superior to lower levels. Table 2 describes some methods for setting targets. Further detailed guidance is provided in the Target setting guide.

Table 2

Target-setting: An overview of methods

Method	Description
International reference	Determine whether baseline estimates are high, medium or low based on international guidelines on target setting (see Additional resources). Set the target at the next level higher than the baseline, e.g. if the baseline is “low” set a target of “medium”
10 years to 80%	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. The justification for this approach is that a target of 100% is rarely reached, but targets of 80% are more feasible. Change in some outcomes does not occur quickly, e.g. a 10-year plan is reasonable for behaviours that are difficult to change. For outputs and other outcomes, a shorter timeframe is reasonable
x% increase	For each indicator, increase the target 10% from baseline. For example, if targets should increase proportionally by 20% and the baseline is 40%, the target is 48% (i.e. 20% of 40% = 8%)
Absolute increase	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% (i.e. 40% + 20% = 60%). This type of target-setting is often difficult to rationalize
Expert opinion or consensus	Some behaviours are harder to change and take more time to modify than others. 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	Countries and subnational areas that have a strong programme 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	If baseline targets are known for several prevention areas, targets can be set higher than the highest achieving area. The goal is to improve beyond what the best area has achieved. This method is not appropriate in some settings, but it may serve to encourage healthy competition

Data use

Service availability maps can be compared with service needs in the area so that any gaps can be addressed. Targets for the key indicators on outputs and coverage are used for assessing performance and for process evaluation (see Steps 4–6).

Additional resources: Target-setting for populations of people who inject drugs

WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users. Geneva, World Health Organization, 2009.

Step 4: Input monitoring. What resources are needed to reach the service delivery targets?

Overview

Rationale: Why is this step important?

This step helps service providers assess the resources needed to reach the set targets from Step 3, to determine what resources are available and to determine whether there is a resource gap. This information can then be used to mobilize additional resources, if needed.

Objectives: What will this step help you do?

Monitor whether there are enough resources (financial and other) to reach the service delivery targets.

How to answer key questions

4.1 What is the gap between the amount of funds needed to meet targets and the amount available?

Products

Financial resource gaps

A funding gap is the difference between the funds needed and the funds received. Estimating the funds needed to meet targets can be difficult if the services have not been provided previously. The source of the funds, the amounts expended and the amount needed are used to estimate gaps in funding. An example of funding gaps for a needle-syringe programme is given in Table 3.

Figure 12 Step 4: Input monitoring

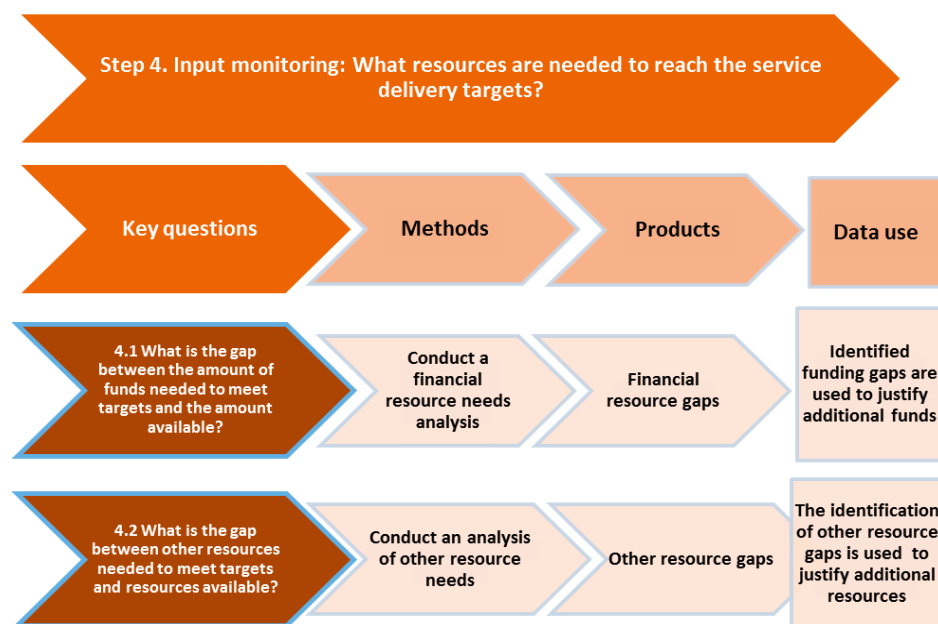


Table 3

Identified financial gaps for a needle–syringe programme

Service	Year	Funds needed (US\$)	Funds received (US\$)			Gap	Funds expended (US\$)	Funds available (US\$)
			Government	Donor 1	Total			
Needle–syringe programme	2010	100 000	100 000	0	100 000	0	60 000	40 000

Methods*Conduct financial resource needs analysis*

Output targets should be set based on available resources (i.e. already secured). The extent to which these resources can support the activities should be determined. Alternatively, targets can be based on the actual needs of the population and service delivery needs. Gaps between required resources and available resources can be determined and additional resources mobilized accordingly. Resource gaps should be addressed by scaling down the services and targets.

Costs must be monitored. Procurement or budget officers should know the quantities and costs of purchased items. Key commodities are items of which the programme cannot tolerate stock shortages; they should be totalled monthly and additional commodities purchased as needed. Costs of other items, such as staff, space, office equipment and consultants, can be totalled less frequently (biannually or annually). The data can be maintained in a simple spreadsheet or ledger book. Input monitoring is an ongoing activity and should be integrated into routine service management functions and undertaken by a staff member. Table 4 shows a simple example of routine monthly commodity tracking for a service delivery programme.

Table 4

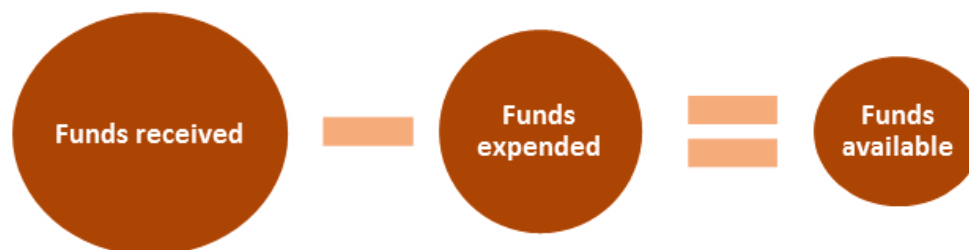
Example of tracking commodities

Commodities	Number procured	Price per item (US\$)	Total monthly cost (US\$)
Condoms	2592	0.1	259.2
Bleach kits	4000	0.05	200
Needles and syringes	10 000	0.2	2000
Information, education and communication pamphlets	1000	0.04	40
Total			2499.2

Data use

Information on resource gaps (financial and other) is used to request and acquire more resources. It is also used to scale down the intervention package and targets based on the resources already secured. Resources are the inputs (e.g. funding, personnel, needles) required to get the outputs (e.g. number of individuals reached with a service). Inputs are divided into the categories “funds” and “all other resources” (see Figure 14).

Figure 13 Step 4: Input monitoring



4.2 What is the gap between other resources needed to meet targets and the resources available?

Products

Other resource gaps (non-financial)

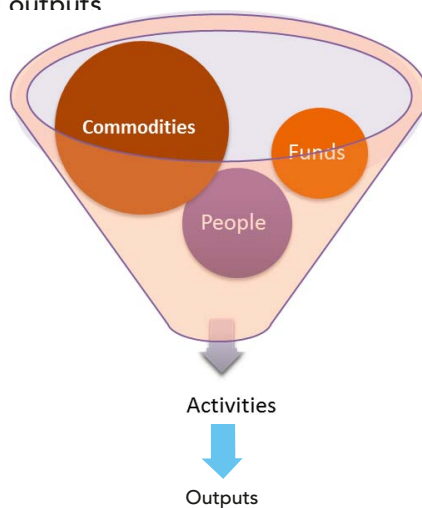
An example of other resource gaps for a needle-syringe programme is given in Table 5.

Table 5

Example of identified resource gaps for a needle-syringe programme

Inputs	Needed	Available	Gap
Human resources (staff, volunteers, consultants)	20	10	10
Equipment (computers)	20	20	0
Commodities (needles and syringes)	10 000	5000	5000
Best practices materials	10	10	0

Figure 14 Inputs and outputs



Methods

Conduct other resource needs analysis (non-financial)

A non-financial resource gap is the difference between the types of input needed and the actual inputs received. These resources include human resources, commodities, equipment, and information, education and communication materials (see Table 5). Box 5 shows an example of how to determine required inputs using a simplified programme impact pathway.

Box 5

Example of determining required inputs using a simplified programme impact pathway

- **Output target:** Population coverage of 50% with commodities and services by the outreach team. For example, estimated size of target population is 600 based on information from a survey conducted at the subnational level; consequently, coverage of 50% means reaching 300 people who inject drugs.
- **Expected activities:** Each outreach worker reaches 60 people per week for 1 month and provides a weekly supply of needles, syringes, condoms and information, education and communication materials. Each outreach worker assesses commitment to using sterile injecting equipment and condoms. Each outreach worker provides HIV testing to people who have not been tested in the past 12 months and provides appropriate referrals to other services.
- **Inputs needed:** five trained outreach workers and 1 month's supply of commodities for 300 people:
 - Number of needles and syringes for 1 month: 300 people x 1 needle and syringe per day x 30 days = 900 needles and syringes.
 - Number of information, education and communication materials for 1 month: 300 x 4 per month = 1200 information, education and communication brochures.
 - Number of condoms for 1 month: 300 x 2 per week x 4 weeks = 2400 condoms.

Data use

Information on resource gaps (financial and other) should be used to request and acquire more resources. It is also used to scale down the intervention package and targets based on the resources already secured.

Additional resources: Resource allocation and planning

Manual for costing HIV facilities and services. Geneva, Joint United Nations Programme on HIV/AIDS. 2011. *HIVTools*. London, HIVTools Research Group (<http://www.hivtools.lshtm.ac.uk/models.htm>).

Step 5: Process evaluation. Are services implemented as planned? What is the quality of the services?

Overview

Rationale: Why is this step important?

One of the most important strategies for improving programme effectiveness is to improve the quality of the services delivered. To ensure that output targets can be reached, it is important to assess whether the services are implemented according to plan. This allows for timely corrections as needed. Poor service quality can have serious problems for programmes.

Evaluation of implementation quality and the quality of services includes determining adherence to the service delivery plan, assessing the quality of services provided according to national standards, assessing client recruitment and retention (i.e. first time and repeat visits), assessing intensity of services received (i.e. who received which services and to what extent), client reaction and satisfaction, and documenting environmental and contextual changes. Typically, process evaluation collects more detailed information about the way a programme is implemented than through routine input, quality and output monitoring (i.e. some key indicators only).

Objectives: What will this step help you do?

- Assess whether service implementation is going according to plan and to make timely corrections where needed.
- Assess the quality of services based on national standards in order to implement improvements as needed.
- Assess whether the M&E system at the service delivery level captures the required data to guide service improvement and ensure sound reporting of data to subnational and national levels.

How to answer key questions

5.1 Are the services implemented according to plan?

Products

Recommendations for service improvement

Methods

Conduct a process evaluation

A process evaluation should be conducted periodically to provide detailed information, in addition to routine monitoring data, on programme implementation and the quality of the programme. This information may include access to services, whether services reach the intended population, how services are delivered, client satisfaction, perceptions about needs and services, and management practices. Process evaluation assesses whether the programme was implemented according to quality standards. It also assesses what the intensity of the programme exposure was for participants. In addition, process evaluation may provide an understanding of cultural, sociopolitical, legal and economic contexts that affect implementation of the programme. Typical methods used in process evaluation include the following:

- **Client interviews:** Interviews with clients, using an interview guide or brief survey instrument, can provide information on their experiences, perceptions and satisfaction with the services received. This includes interactions with service providers (e.g. welcoming, respectful) and referral sites, access and acceptability of service delivery sites (e.g. location, comfort of space provided), quality of materials (e.g. user-friendly educational pamphlets) and appropriateness of services. The interviews can also assess the intensity of exposure to services and whether referral systems intended to provide a continuum of care are working effectively.
- **Staff interviews:** Interviews with management and service providers can provide information on perceived strengths, weaknesses and needs related to service delivery, management processes, staff and management structures, capacity and communications methods. The attitudes of medical care providers towards the programme can hint at potential barriers such as stigma. Staff perceptions of service implementation can provide useful input for improving service quality and enhancing staff satisfaction.
- **Observation:** Observing client–staff interactions provides an opportunity to assess the completeness and accuracy of information provided to clients, adherence to standards and protocols, interpersonal communication skills of the staff, and whether the appropriate referrals are made.
- **Facility audits:** Facility or service audits provide information on the availability of required staff (number and qualifications), adequacy of infrastructure, equipment, support materials, technical and operational guidelines, and so on. They can also assess programme support functions, including procurement and material storage and availability, record-keeping and documentation.
- **Interviews with complementary service providers:** This type of interview can address the adequacy of referral linkages by focusing on collaboration with service delivery sites that provide complementary services and can include an assessment of referral experiences, including follow-up and perceptions about referrals.
- **In-depth interviews and focus groups with non-users and community members:** Qualitative research methods such as focus group discussions and in-depth interviews with non-service users can help to identify barriers and biases in access to services and gaps in service provision. The attitudes of other community members who engage with people who use drugs, such as the police, can be informative.

Some of these methods may overlap with those used in Step 2 and with specific quality assessment checklists, as explained below.

Data use

Process evaluation data help to document critical information for programme scale-up or replication elsewhere. They also alert programme managers to problems that need to be resolved quickly.

5.2 Is adherence to national standards promoted by service delivery organizations? What is the quality of each service being provided? What is the quality of the M&E system?

Products

Quality standards

Box 6 lists universal standards for programme delivery for people who inject drugs. This box can be used as a poster and displayed in a service delivery organization. It can also serve as a reminder to deliver quality services.

Box 6

Universal quality standards for all services

■ **Standards on involving people who inject drugs:**

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

■ **Standards on clients' rights:**

- Clients are fully informed of the nature and content of the services, and the risks and benefits to be expected.
- Confidentiality and privacy of clients are maintained at all times.
- Adherence to human rights is maintained, and legal barriers to access services are removed.
- Access to medical and legal assistance for people who experience sexual coercion or violence is available.

■ **Standards on providing a comprehensive package of services to people who inject drugs:**

- Awareness of, and easy access to, all components of the comprehensive package of services is ensured.
- Protocols for delivery of each component of the comprehensive package are updated periodically, and disseminated to and adhered to by all service providers.

■ **Standards on staffing:**

- Staff members receive regular supervision by senior staff to maintain quality of service delivery.
- Service providers are sensitized and trained to avoid discriminating against people who inject drugs.

■ **Standards on availability and accessibility:**

- Services are available to all potential clients, irrespective of age, ethnicity, sexual identity, citizenship, religion, employment status, health insurance status or substance use status.
- Services are considered easily accessible with regard to location, transportation options, travelling time and cost.
- Services are equitable and non-discriminatory. There should be no exclusion criteria except on medical grounds (e.g. opioid substitution therapy should not be limited to people who inject drugs and who are living with HIV, or who have failed on other drug dependence treatment).
- Safe virtual and physical spaces (e.g. telephone hotlines and drop-in centres) are available for people who inject drugs to obtain information and referrals for prevention, treatment and care services.

Methods

Promote quality standards, and conduct staff observations and surveys

Quality standards for service delivery should be set at the national level with input from experts, service providers and the population being served. Some universal standards that apply to the delivery of all programmes for people who inject drugs are listed in Box 7. This box can be used as a poster and displayed in a service delivery organization. It can also serve as a reminder to deliver quality services.

Box 7

Checklist for service quality assessment (short version)

Quality checklist by service

■ **Needle–syringe programmes:**

- Clients receive information, education and communication when accessing needle–syringe programmes.
- Clients receive condoms when accessing needle–syringe programmes.

■ **Opioid substitution therapy and other drug dependence treatment:**

- Clients on opioid substitution therapy receive recommended maintenance dose of 60mg of methadone per day or 12mg of buprenorphine per day.
- Clients on opioid substitution therapy return regularly to receive services.
- Clients are in voluntary treatment.

■ **Prevention and treatment of sexually transmitted infections:**

- People diagnosed with a sexually transmitted infection receive appropriate treatment.
- Case management of sexually transmitted infections is delivered with the quality specified in the national guidelines.
- National management guidelines for sexually transmitted infections are reviewed periodically at the national level to ensure their continued correspondence to the latest treatment methods.
- Counselling services are provided when people receive treatment for sexually transmitted infections.
- Accepting, not stigmatizing, attitudes are noted among people providing care for people with sexually transmitted infections.

■ **Antiretroviral treatment:**

- Injecting drug use does not exclude a person from accessing antiretroviral treatment services.
- There is a protocol addressing the special treatment needs of people who inject drugs who are eligible for antiretroviral treatment.

Quality checklist for all services

A system is in place to ensure no stock-outs occur.

A unique identifier code or other system exists to count the number of unique clients rather than the number of contacts with the service.

There is an established referral system, including a follow-up mechanism.

Information, education and communication is provided.

A risk assessment is conducted.

Condoms are provided for sexually active people who inject drugs.

Observations during counselling sessions or mock sessions should be conducted periodically to assure adherence to standards. The observer should be familiar with the national standards and should develop a checklist to ensure staff members are meeting all important elements. Surveys of staff knowledge of national standards regarding the services could be administered annually.

Quality assessment tools include the following:

- Checklists: Sources for quality assessment protocols are listed under *Additional resources* below. In addition, a complete checklist of quality standards designed for use at the service delivery level is provided in Tool 6 for each service as well as for the M&E system. The checklist is a draft document that was developed for the Guidelines and may be useful. (A section of the quality checklist is shown in Figure 23.)
- Monitoring availability of services from service records: Service availability is monitored by:
 - recording any stock-outs for specific commodities in the past 12 months;
 - recording an inventory supply that will typically last for the next 30 days;
 - recording the number of days and shifts with insufficient staffing.
- Plan-do-check-act problem-solving: The plan-do-check-act approach can be used to assess and improve programme quality. It is a collaborative process in which problems are identified and analysed. Then solutions are developed, implemented and evaluated. If the goal is achieved, the process ends. If the problem is not solved, the process repeats until a solution is found.
- Monitoring key indicators on service quality: Table 6 lists a subset of the quality indicators presented in the Target setting guide. These indicators are also included in Annex 2.

Additional resources

Condom programming for HIV prevention: An operations manual for programme managers. New York, United Nations Population Fund, 2005 (http://www.unfpa.org/webdav/site/global/shared/documents/publications/2005/condom_prog2.pdf).

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).

Improving HIV testing and counselling services: Technical brief. Geneva, World Health Organization, 2011 (http://www.who.int/hiv/pub/vct/WHO_HIV_11_01/en/index.html).

Figure 14b Step 5: Process Evaluation

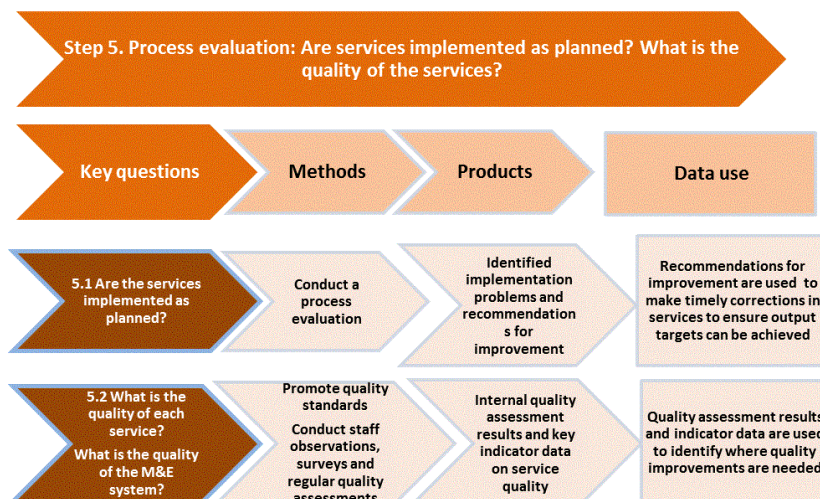


Table 6

Quality indicators adapted to the service delivery level

4.1	Whether site adheres to WHO and UNFPA guidelines	Quality audit	Target setting guide
4.2	Percentage of occasions when clients access a needle-syringe programme and receive information, education and communication	Programme data	Target setting guide: 4.1.10
4.3	Percentage of occasions when clients access a needle-syringe programme and receive condoms	Programme data	Target setting guide: 4.1.11
4.4	Percentage of patients on opioid substitution therapy who are receiving the recommended maintenance dose	Programme data	Target setting guide: 4.2a.9
4.5	Percentage of patients on opioid substitution therapy who have been on opioid substitution therapy continuously for the past 12 months	Programme data	Target setting guide: 4.2a.10
4.6	Average duration of treatment on opioid substitution therapy	Programme data	Target setting guide: 4.2a.11
4.7	Average maintenance dose of opioid substitution therapy	Programme data	Target setting guide: 4.1.12
4.8	Number of individuals in compulsory treatment	Programme data	Target setting guide: 4.2b.5
4.9	Percentage of people who inject drugs diagnosed with a sexually transmitted infection who received treatment	Programme data	Target setting guide: 4.5.5

Data use

Internal assessments are used to assess the quality of services and results used to make improvements. Meetings with members of the target population can provide information on how to improve the acceptability of services. Staff morale will increase as the quality of services increases. Service delivery providers with problems or successes in quality can help other providers by sharing their problems and solutions.

Additional resources*Universal standards of quality*

Clinical facility and services assessment field guide: Quality assurance (QA) and quality improvement (QI). Research Triangle Park, NC, FHI, 2007.

Practical guidelines for intensifying HIV prevention: towards universal access. Geneva, Joint United Nations Programme on HIV/AIDS, 2007 (http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf).

Are you being served? New tools for measuring service delivery. Washington, DC, World Bank, 2008.

Quality assurance resource pack for voluntary counselling and testing service providers. Geneva, World Health Organization, 2003.

HIV/AIDS: Service delivery. Geneva, World Health Organization, 2011 (<http://www.who.int/hiv/topics/vct/toolkit/components/service/en/index1.html>).

Other guidelines related to providing a basic package of services

Condom programming for HIV prevention: An operations manual for programme managers. New York, United Nations Population Fund, 2005 (http://www.unfpa.org/webdav/site/global/shared/documents/publications/2005/condom_prog2.pdf).

Condom programming for HIV prevention: A manual for service providers. New York, United Nations Population Fund, World Health Organization and PATH, 2005.

Guidelines for the management of sexually transmitted infections. Geneva, World Health Organization, 2003.

Guidelines on antiretroviral therapy for HIV infection in adults and adolescents. Geneva, World Health Organization, 2006.

Plan–do–check–act problem-solving process

Plan–do–check–act: A problem solving process. Raleigh, NC, North Carolina Department of Environment and Natural Resources, 2009 (<http://quality.enr.state.nc.us/tools/pdca.htm>).

Qualitative research methods

Qualitative research methods: A data collector's field guide. Research Triangle Park, NC, FHI, 2005.

Using mystery clients for monitoring of site improvements; HIV testing and counselling

Using mystery clients: A guide to using mystery clients for evaluation input. Washington, DC, Pathfinder International, 2006.

Client satisfaction evaluations. Geneva, World Health Organization and United Nations Office on Drugs and Crime, 2000.

Improving HIV testing and counselling services: Technical brief. Geneva, World Health Organization, 2011 (http://www.who.int/hiv/pub/vct/WHO_HIV_11_01/en/index.html).

Step 6: Output monitoring, including coverage. Are the intended outputs achieved? What proportion of the population in the local area received services?

Overview

Rationale: Why is this step important?

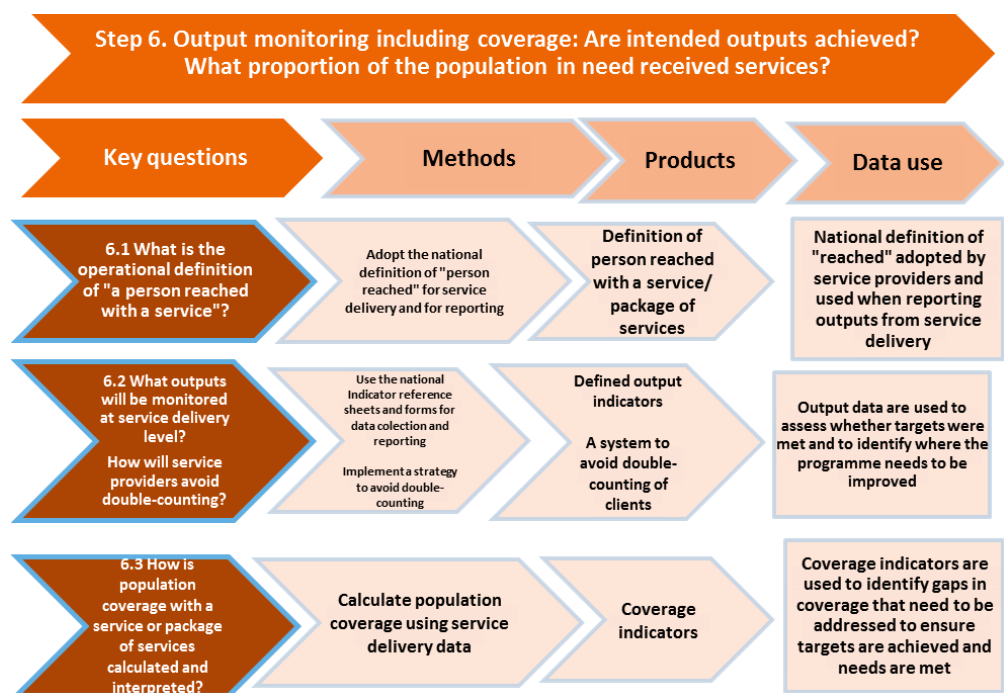
HIV prevention programmes commonly fail because services were not delivered as planned. Therefore, output monitoring is used to:

- determine which services were actually provided;
- count the number of people reached with each service or a package of services;
- assess whether output targets are reached;
- monitor trends and changes in service usage;
- justify programme funding to donors.

Objectives: What does this step help you do?

- Create a national definition of “reached with service or package of services”.
- Monitor outputs across service providers and avoid double-counting of clients.

Figure 15 Step 6: Output monitoring, including coverage



- Monitor geographical coverage and calculate population coverage – the proportion of the population reached by each service and by a package of recommended services.

Output indicators monitor what services are being provided and who has been reached with each service or a package of services. Coverage indicators monitor the proportion of the target population reached with services.

Objectives: What does this step help you do?

- Define operational definition of “reached with service or package of services”.
- Monitor service outputs and avoid double-counting of clients.
- Calculate coverage (wherever possible) – the proportion of the target population reached using service delivery data.

How to answer key questions

6.1 What is the operational definition of “a person reached with a service or package of services”?

Products

Definition of what is meant by “reached with a service or a package of services”

To be able to monitor services correctly, criteria must be defined for counting whether a person has been “reached with a specific service”. For example, a client is considered:

- reached by a needle–syringe programme when he or she has accessed a needle–syringe programme at least once per month in the past 12 months;
- reached by opioid substitution therapy when he or she has received methadone continuously for at least 6 months, in the recommended maintenance dose per day (60–120mg of methadone per day).

In addition, criteria for counting whether a person has been reached with package of services need to be defined as per the national definition. For example, a client is considered reached with an HIV prevention package of services when he or she has received all of the following services in the past month:

- given clean needles and syringes;
- given condoms and given an information brochure about HIV and how to protect oneself from HIV.

Methods

Adopt the national definition of “person reached”

Service providers should adopt the national definition of being “reached” if possible, as this definition is essential to ensure consistency in data collection by different service providers and over time. If another definition is adopted for local service delivery, then the national definition should still be used for reporting purposes. The national definition needs to be agreed upon by a national forum including representatives from governmental, nongovernmental and international organizations. Table 7 provides examples of definitions for each of the services in a comprehensive package of services for people who inject drugs. See the introduction for more information about the services that are typically provided in different service delivery settings.

Table 7

Definition of “a person reached with a service” for each service in a comprehensive package of services for people who inject drugs

Service	Definition of “person reached with the service”
Needle–syringe programme	Accessed a needle–syringe programme at least once per month in the past 12 months
Opioid substitution therapy or other drug-dependence treatment	Received methadone or buprenorphine continuously, in the recommended maintenance daily dose (i.e. 60–120mg of methadone or 12–24mg of buprenorphine) for at least 6 months
HIV testing and counselling	Received an HIV test and counselling (including provision of the test result) in the past 12 months and was referred to treatment if tested positive for HIV
Antiretroviral treatment	Has been enrolled in an antiretroviral treatment programme
Targeted information, education and communication for people who inject drugs and their sexual partners	Received information about the risk of HIV transmission via use of non-sterile injecting equipment and unprotected sex, through peer education or counselling at least once during the past 12 months
Prevention and treatment of sexually transmitted infections	Screened or tested for sexually transmitted infections at least once in the past 12 months and treated if needed (the infection must be specified, e.g. gonorrhoea, syphilis, chlamydia, trichomonas)
Condom promotion programmes for people who inject drugs and their sexual partners	Accessed free condoms from a programme targeting people who inject drugs and received instructions on correct condom use at least once during the past 12 months
Vaccination, diagnosis and treatment of viral hepatitis	• Vaccinated for hepatitis B during the past 12 months
	• Tested for hepatitis B and referred for treatment if needed during the past 12 months
	• Diagnosed with and completed treatment for hepatitis B during the past 12 months
	• Tested for hepatitis C and referred for treatment if needed during the past 12 months
	• Diagnosed with and completed treatment for hepatitis C during the past 12 months
Prevention, diagnosis and treatment of TB	• Screened or tested for TB during the past 12 months and referred for treatment if needed
	• Completed treatment for TB during the past 12 months

Data use

The operational definition of “reached” for specific services or package of services is used for collecting standardized data that need to be reported and aggregated across service providers.

6.2 What outputs will be monitored at the service delivery level? How will service delivery providers avoid double-counting?

Products

Output indicators

At the service delivery level, frequently monitored outputs include the following:

- **Number of people reached with a service or package of services:**
 - number of people who inject drugs reached with a needle-syringe programme;
 - number of people on opioid substitution therapy in the catchment area;
 - number of people who inject drugs receiving antiretroviral treatment in the catchment area.
- **Number of services provided:**
 - number of HIV testing and counselling sessions provided in the catchment area;
 - number of cases of sexually transmitted infections treated in the catchment area.
- **Number of commodities distributed:**
 - number of needles and syringes distributed in the catchment area by a service provider;
 - number of condoms distributed to people who inject drugs in the catchment area by a service provider.
- **Number of people trained:**
 - number of health-care providers trained in issues related to injecting drug use, including how to counsel people who inject drugs and how to detect and treat sexually transmitted infections.

Outputs that are less frequently monitored but are useful to monitor barriers to access of services include:

- number of meetings held with officials to address legal barriers for people who inject drugs to access services;
- number of participants in community mobilization activities;
- number of physical safe spots organized in the community for people who inject drugs.

Strategy to avoid double-counting

Ideally, we need to know how many different individuals of the target population of people who inject drugs have been reached with a service, rather than how many contacts the service provider made with the population. In other words, the aim is to avoid counting an individual more than once when reporting on the indicator “number of people reached with a service”. The following strategies can be used:

- quarterly brief intercept survey of clients accessing a service site during a 3-day period;
- record whether it is a first time visit on the client encounter form;
- assign a unique identifier code to each client.

Standardized forms for data collection, reporting and aggregating

The standardized forms commonly used are:

- encounter forms (see Tools 7 and 8);
- referral forms (see Tool 13);
- aggregation forms.

Methods

Define output indicators

Service delivery providers may identify many outputs to be monitored. An output is an immediate result from a programme or service that can be counted. Counting outputs provides evidence that activities have occurred. Downward trends in outputs can signal a problem with service delivery.

Table 8 lists key requirements for specifying and monitoring output indicators.

Table 8

Requirements for specifying and monitoring output indicators

Requirements for a good output indicator		Clarifications and examples
1	Fully specified indicator reference sheet	This should include the following information: <ul style="list-style-type: none">• Indicator definition• Rationale or 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	Well-defined activity that can be counted	For example, number of people reached with a service or package of services; or number of commodities (e.g. condoms, needles or syringes) distributed; or number of people trained
3	Time period during which the activity occurred	For example, number of condoms distributed each calendar month; or number of people reached by a needle-syringe 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 people who received at least one free condom with instructions on its use

Figure 16 Strategies for avoiding double-counting

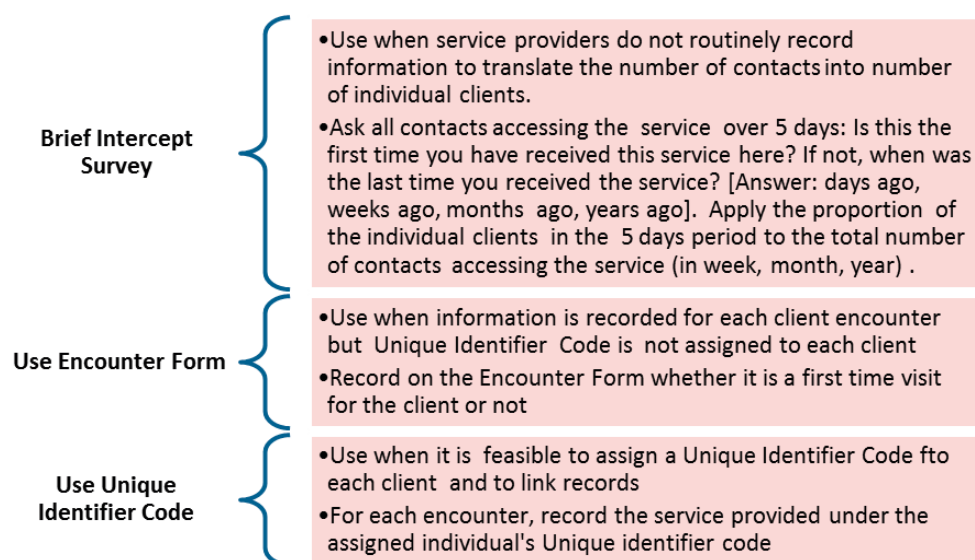


Table 8 Requirements for specifying and monitoring output indicators (continued)

Requirements for a good output indicator	Clarifications and examples
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	For example, number of people reached by a needle–syringe programme, and a condom promotion programme, and HIV testing and counselling, and targeted information, education and communication
6 Output indicator meets the indicator standards	<p>The indicator meets each of the following standards:</p> <ul style="list-style-type: none"> • 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 practice <p>Each standard is further defined by specific criteria (see UNAIDS, 2010d)</p>
7 Standardized data collection form to collect the indicator data	An encounter form for recording which services were provided to the client (see Tools 7 and 8)
8 Baseline measurement of the indicator and a realistic target	For example: Baseline in 2009 – 60 000 condoms distributed to 500 clients (10 condoms per client per month). Target for 2010 – 72 000 condoms to be distributed to 600 clients (with same assumption of 10 condoms per client per month)

Identify a strategy to avoid double-counting

The double-counting problem arises when service providers know the number of contacts with the target population but not how many unique individuals they have contacted. Increasingly, funders want to know not only how many contacts have been made with the population, but how many different individuals have been contacted.

Each service provider must determine what method will be used to avoid double-counting of individuals or to translate the number of contacts with the population into the number of unique individuals reached with a service. Figure 16 summarizes three different strategies to be used when reporting on the individual number of people reached with a service

Service providers that adopt the use of a unique identifier code for clients will be able to track the individual client's participation in the programme, the services each client receives, and whether referrals to services have been followed up. The use of unique identifier codes can provide accurate information on the number of clients reached with services and the number of contacts made with each client. In order to use a unique identifier code, a service delivery provider must develop a data-storage system that protects the privacy of clients. For example, unique identifier codes should not be based on government-issued identity numbers or other unique identifiers that can readily be linked to the client. An example of a "safe" unique identifier code developed by Population Services International is a seven-digit code composed of:

- the first two letters of the client's mother's first name;
- the first two letters of the client's father's first name;
- the client's sex (single letter "M"/"F" or number);
- the last two digits of the client's year of birth (see Gray and Hoffman (2008) and WHO (2009b)).

Use standardized forms that address double-counting and measure output indicators

Standardized data collection forms for recording whether a service has been provided are typically developed at the national level to ensure that all service providers collect data in a standardized manner. The most important forms are shown in Figure 17 and examples are included in the tools section (see Tools 7, 8 and 13).

Figure 17 Types of form to measure output indicators

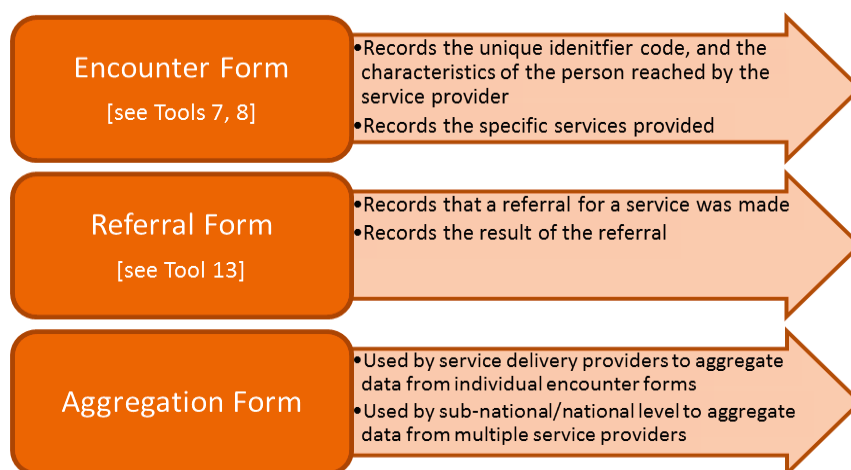
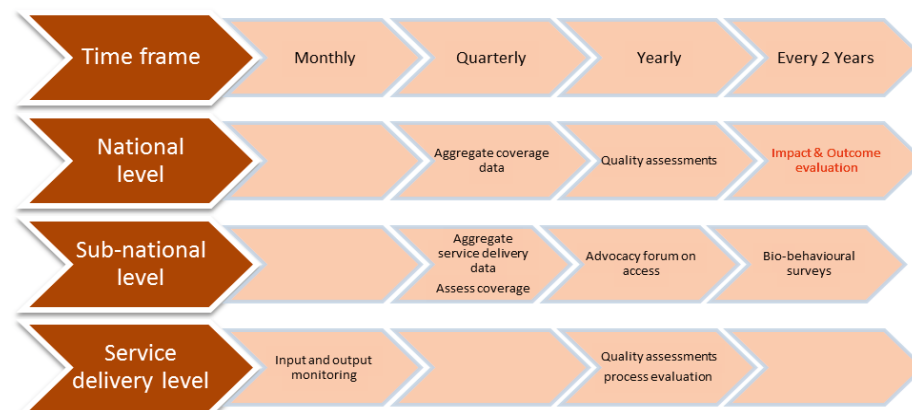


Figure 18 shows a recommended data-collection and reporting schedule for all levels.

Service providers need to routinely collect data on outputs, tally these numbers monthly and share these data with the subnational level every quarter. At the national level, information from all service providers in each of the subnational areas must be aggregated. Specific tools are available that help with aggregating data at the subnational level, by hand or with the use software. For example, the UNAIDS Country Response Information System allows service delivery providers to enter data directly online. If service providers do not have online access, data can be aggregated by hand and entered on to hard copies of spreadsheets or forms. These can be shared with the subnational or national level and entered into the Country Response Information System or other computerized system at that stage.

Figure 18 Recommended data-collection and reporting schedule for all levels



Data use

Using trends in outputs to assess performance

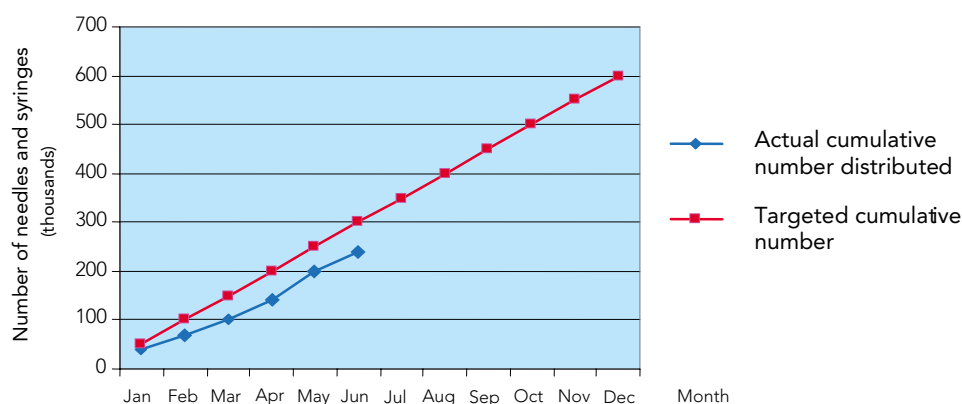
The following example illustrates how output trend analysis can help to improve service delivery. Trend analysis compares actual outputs with output targets over time to determine how well the outputs meet the target.

For example, a service provider sets a target of 600 000 needles and syringes to be distributed during 1 year. To reach this target, the target number of needles and syringes to be distributed every month is $600\,000/12=50\,000$. Figure 19 shows how well the programme is doing in the first 6 months. Tracking this information monthly is a good way of showing how programmes may need to scale up to achieve the targets.

The results of the output monitoring allow assessment of performance (i.e. how well the programme is doing against set targets). Actions can be taken in a timely manner to improve the situation where needed:

- Keep doing what you do if the outputs are reaching the targets.
- Areas of underperformance are identified and can be addressed in a timely manner.
- Reasons for underperformance can be explored. In addition, underperformance should be discussed with the target population and relevant partners to identify reasons for underperformance. Potential solutions can be determined and steps taken to improve the situation.

Figure 19 Example of monitoring needle and syringe distribution



6.3 How is coverage defined, calculated and interpreted?

Products

Coverage indicators

Coverage indicators measure what proportion of the target population is receiving services. Figure 20 shows an example of coverage indicators for two separate service elements of the HIV prevention package of services for people who inject drugs. Figure 21 shows coverage indicators for components of the package of services obtained from service delivery data.

Methods

Calculate coverage indicators from service delivery data

Coverage indicators measure the proportion of a target population receiving services. This measurement requires knowledge of the size of the target population and how many people in the target population have been reached with services. National and subnational levels are responsible for measuring the proportion of the target population reached by each service and the package of services as per the national definition. If this information is not available, however, service delivery providers may want to assess the adequacy of service coverage in their service delivery area using information

Figure 20 Example of monitoring needle and syringe distribution

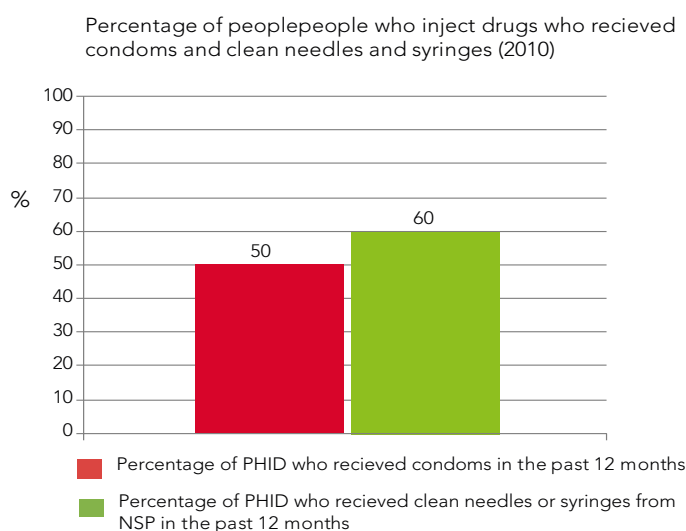


Figure 21 Examples of coverage for components of the package of services

Cascade of people who inject drugs receiving service package, Sub-National Area, Country X, (2010)

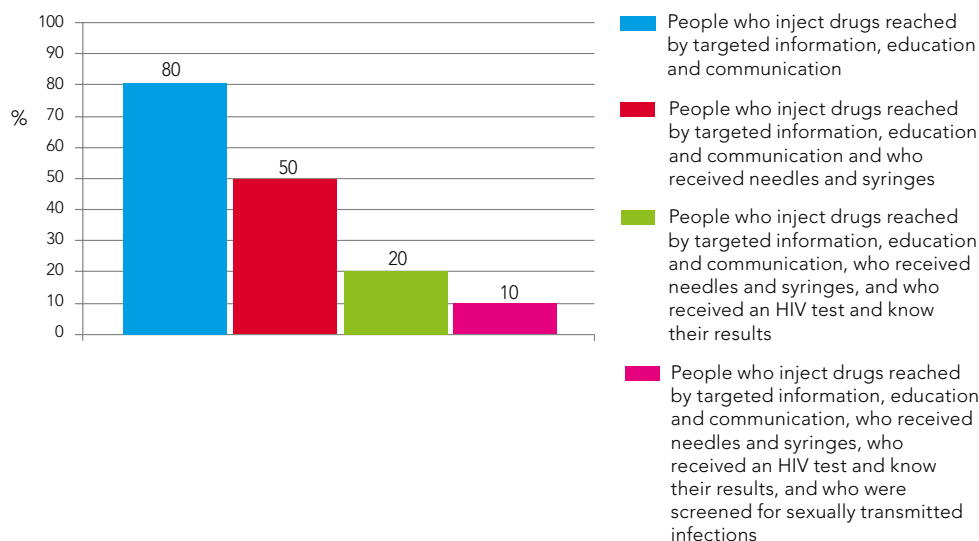


Figure 22 Percentage of people who inject drugs reached by a needle-syringe programme

A Date and LOCATION OF ENCOUNTER Encounter #: _____

A1 Type of Location 1 Needle and Syringe Program (NSP) site (fixed) 2 Needle and Syringe Program site (outreach) 3 Other provider (specify _____)	A3 Today's Date Day ____/Month ____/Year ____
A2 Sub-national area number	A4 Service delivery provider (eg. NGO) number
A5 ID number of individual providing service:	

B UNIQUE IDENTIFIER CODE AND DEMOGRAPHIC INFORMATION

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

3,000 IDU accessed the NSP

Numerator: Number of IDUs who accessed an NSP

Denominator: Size estimate of IDU population

6,000 IDU in Service Delivery Area according to Sub-National Estimate

Coverage = 3,000 / 6,000 = 50%

obtained from the client encounter form and available estimates of the size of the target population in their catchment area (see Figure 22).

Calculating the population coverage for a service or package of services using service delivery data requires:

- a clear definition of the service or package of services (see Step 3 and Section 6.1);
- a strategy to avoid double-counting of clients (see Section 6.2);
- estimates of the size of the target population (see Section 1.4).

Figure 23 Percentage of people who inject drugs reached by a needle–syringe programme

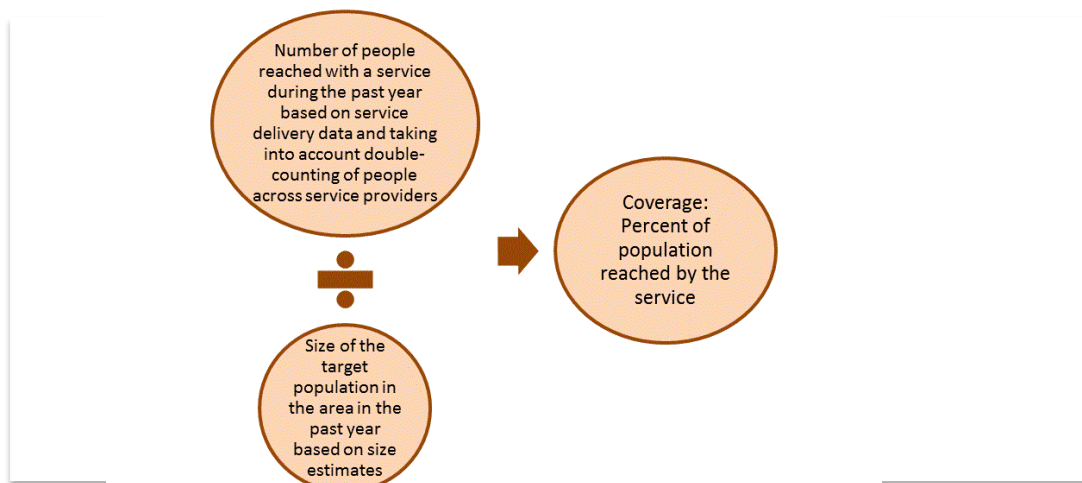


Figure 23 shows the calculation of coverage from service delivery data and a size estimate of the population.

Data use

Using coverage data to improve performance

Achieving high coverage is an intermediate step in promoting healthy injecting and sexual behaviours among people who inject drugs. The programme is unlikely to result in behavioural changes if it does not reach the majority of its target population. Similar to trend analysis using output indicator data, coverage data should be analysed to ensure coverage targets are being reached. Efforts should be made to provide better individual coverage. Timely feedback from the national level to the subnational level, and from the subnational level to the service delivery level, may result in better coverage. Where the areas of underperformance are identified, the data can be examined more carefully, the reasons for the current situation analysed, the potential solutions identified, the steps to be taken determined, and the required changes implemented to improve performance.

Additional resources: Collecting, analysing and using monitoring data, entering data into the global spreadsheet, doing basic analysis and creating charts

Monitoring HIV/AIDS programmes: Participant guide. Durham, NC, FHI, 2004.

Step 7: Outcome monitoring and evaluation. Are there changes in HIV transmission risk? Are these changes due to the HIV prevention programme?

Overview

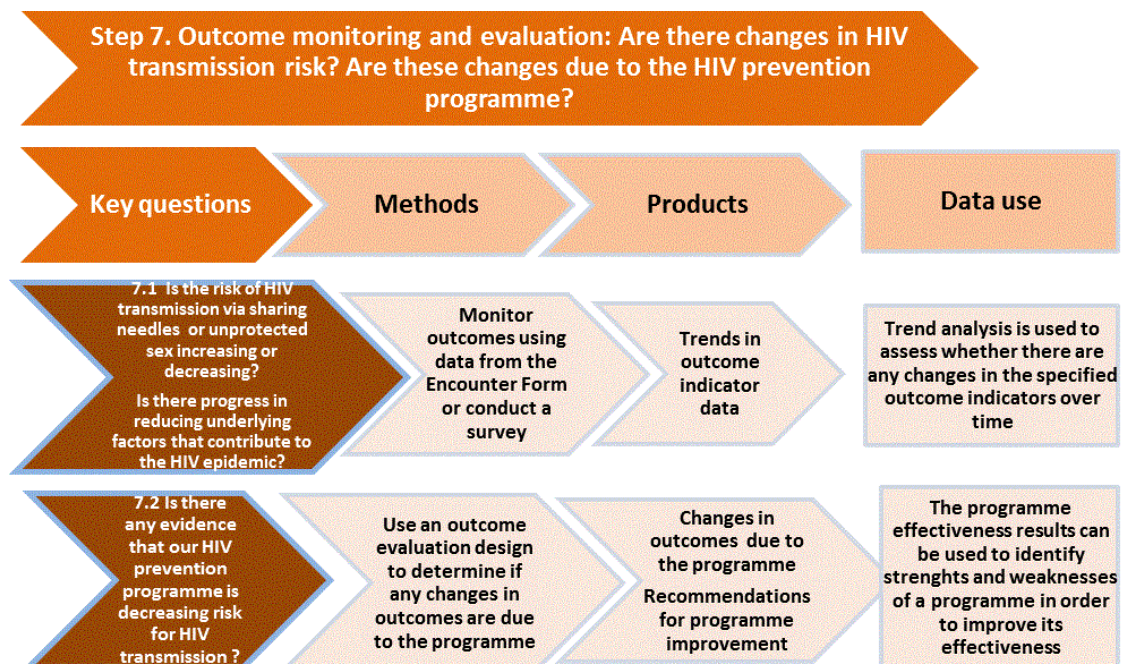
Rationale: Why is this step important?

This step explains how to monitor outcomes at the service delivery level and how they can be used to evaluate the effectiveness of the programme. There are two types of outcome – outcomes that measure the risk of infection with HIV, such as using non-sterile injecting equipment or having unprotected sex (i.e. biological determinants), and outcomes that measure whether factors that contribute to HIV infection are changing, such as whether clean needles and syringes are available (i.e. sociodeterminants). Targets for these outcomes were set in Step 3. Service providers who want to monitor outcomes must have the capacity either to survey the target population or to capture outcome indicators on the client encounter forms and use a unique identifier code for each client. Not all service providers need to collect outcome data or have the capacity to do so.

Objectives: What will this step help you do?

- Determine whether the risk for HIV transmission is decreasing.
- Determine the effectiveness of a specific programme.

Figure 24 Step 7: Outcome Monitoring and Evaluation



How to answer key questions

7.1 Biological determinants: Is the risk for HIV transmission through using non-sterile injecting equipment or having unprotected sex increasing or decreasing? Sociodeterminants: Is there progress in reducing underlying factors that contribute to the HIV epidemic?

Products

Trends in outcome indicator data

For specified outcomes related to biological determinants of HIV transmission, outcome monitoring answers questions such as the following:

- Are fewer or more people sharing non-sterile injecting equipment?
- Is condom use among people who inject drugs increasing or decreasing?

For outcomes related to sociodeterminants of HIV transmission, outcome monitoring answers questions such as the following:

- Have the laws changed to increase access to HIV prevention programmes?
- Do people who inject drugs know how to prevent HIV transmission?

Methods

Monitor outcomes using encounter form data

Service delivery data are a valuable source of information about the people receiving services. For example, if the encounter form records whether non-sterile injecting equipment was used at the last injection, it is possible to aggregate the monthly total number of people who used non-sterile injecting equipment at the last injection and the number who did not. Trends in the number who reported using non-sterile injecting equipment could be monitored over time. Interpretation of these trends is difficult, however, because information on people who did not use the service is not taken into account. Programme data may show a decline in the number of people using non-sterile injecting equipment, but the problem may actually be increasing in the service delivery area if few people are accessing the needle-syringe programme or if the number of people who inject drugs is increasing in the area.

Monitor outcomes using surveys

Surveys can be used to assess changes in outcome measures. Survey participants are asked about their use of specific services, about any facilitators or barriers to service use, and about the quality of the services received. Obtaining information on the use of services – quantity, intensity and HIV-related risk behaviours – can be used to determine whether there is evidence of a decrease in risk behaviours among clients accessing services. See Tool 9 for a list of illustrative survey questions and the corresponding indicators that can be obtained.

Surveys are typically repeated every 2 years to collect outcome indicators. To be done well, surveys require additional expertise and resources and are therefore mostly conducted by the subnational or national level. Other data-collection methods are also used to interpret the findings from surveys

7.2 Is there any evidence that our programme is decreasing risk for HIV transmission?

Products

Outcome data linked to a specific programme

Methods

Conduct an outcome evaluation

There is a difference between outcome monitoring and outcome evaluation. Outcome monitoring tracks changes in outcomes without determining whether any changes observed were caused by a specific programme. Outcome evaluation, on the other hand, determines whether changes in outcome indicators are caused directly by exposure to a specific HIV prevention programme rather than (or over and above) other causes. Outcome evaluation requires some type of comparison group. Outcomes among the group or in the area exposed to a programme are compared with a group or area without the programme.

Deciding whether an evaluation is needed requires a clear understanding of what is already known about the programme. Many of the basic questions about efficacy² and effectiveness³ have already been resolved for HIV prevention interventions for people who inject drugs. An evaluation is warranted only if there are important uncertainties about the programme. It is important to select appropriate evaluation methods and a skilled evaluation team to ensure that valid results can be obtained to allow for improvement of the programme where needed.

2 An efficacy study asks the question, "Does the programme work under carefully controlled conditions?" (i.e. in expert hands, fully resourced and under clearly defined conditions).

3 An effectiveness study asks the question, "Does the programme work in the real world?" (i.e. implemented as part of routine practice or in a community setting with limited resources and capacity).

Step 8: Impact monitoring and evaluation. Are the combined HIV prevention activities in the country changing the HIV epidemic among people who inject drugs?

Overview

Rationale: Why is this step important?

Impact monitoring describes trends in HIV prevalence or incidence, while impact evaluation assesses whether changes in HIV prevalence or incidence can be attributed to a specific programme. Most service providers do not conduct impact monitoring or impact evaluation for several reasons. Changes in HIV prevalence or incidence are often small, difficult to measure in a short period of time, and difficult to attribute to a specific programme. Few, if any, service providers have the capacity to evaluate their programmes in this way, and it is also not needed. Impact is most likely to be the combined effect of several services or programmes (i.e. high service coverage in all or most areas in need), rather than the effect of a single programme or service. Thus, impact M&E is typically conducted at the national or subnational level to understand the effects of the overall HIV prevention response in the country or subnational area. The service delivery level plays a critical role in impact assessments since aggregated service delivery data are analysed and used to understand the results of the overall response. Moreover, service staff and programme managers may be asked to participate in reviews of service records and regular reporting systems, key informant interviews, population-based surveys, longitudinal studies, reviews of secondary data and so on.

Notes

Notes

20 Avenue Appia
CH-1211 Geneva 27
Switzerland

+41 22 791 3666
distribution@unaids.org

unaids.org