

TOOLKIT FOR
MONITORING
AND EVALUATION
OF INTERVENTIONS
FOR SEX WORKERS



**World Health
Organization**

South-East Asia Region

Western Pacific Region

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CONTENTS

Acknowledgements	v
Glossary	vi
Acronyms and abbreviations	xi
1. Introduction	15
2. Overview of interventions for female sex workers (FSWs) and clients	18
2.1 Goals and objectives of interventions for FSWs	18
2.2 Service components of interventions for FSWs	19
2.3 Service components of interventions for clients of FSWs	22
3. General approach to effective monitoring and evaluation (M&E)	23
3.1 Basic steps for designing/strengthening an effective M&E system	25
3.2 Modifying the M&E system to match the programme life-cycle	27
3.3 How to manage change in an M&E system	27
3.4 Techniques for effective analysis and use of data	28
3.5 Choosing the right denominators for coverage indicators	30
4. Recommended indicators and target-setting	32
4.1 Indicators	32
4.2 Target-setting	36

CONTENTS

5.	Using data from monitoring and evaluation	37
5.1	Using M&E data to answer questions on programme management	37
5.2	Specific examples of data use	41
5.3	Generating reports for programme management purposes	57
	Annexes	63
	<i>Annex 1:</i> Designing a standardized M&E system	64
	<i>Annex 2:</i> Detailed definitions of recommended indicators	67
	<i>Annex 3:</i> Overview of data collection methods	89
	<i>Annex 4:</i> Questions for inclusion in sex worker surveys	96
	<i>Annex 5:</i> Sample data collection formats	98

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GLOSSARY

100% condom use programme: The 100% condom use programme (100% CUP) aims to prevent the sexual transmission of HIV and sexually transmitted infections (STIs) in the general population by promoting a high level of condom use among sex workers and their clients. The main principle is to create an enabling environment to empower all sex workers to refuse sex services if clients do not want to use condoms. Condoms should be used: 100% of the time; in 100% of risky sexual relations; and in 100% of sex entertainment establishments in a large geographical area such as a town, district, province or country.

Behaviour change communication: Behaviour change communication (BCC) is an interactive process for developing messages and approaches using a mix of communication channels in order to encourage and sustain positive and appropriate behaviours. To be effective, BCC programmes need to be tailored to specific target populations.

Best practices: Best practices are information materials that provide information about what has worked in specific settings for the benefit of others facing similar challenges. They fill a gap in key policy and programmatic areas by providing technical and strategic guidance as well as state-of-the-art knowledge on prevention, care and impact alleviation in multiple settings.

Drop-in centre: A drop-in centre provides access to information/education, resources and services for the prevention of HIV/STIs; offers compassionate support services for persons affected by HIV/AIDS; and supports the ground work for community-building projects in a safe and confidential environment.

Epidemic (generalized, concentrated, low-level): In a *generalized epidemic*, HIV is firmly established in the general population. HIV prevalence is consistently over 1% among pregnant women. Although subpopulations with higher risk may continue to contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of subpopulations at higher risk for infection.

In a *concentrated epidemic*, HIV has spread rapidly in at least one defined subpopulation, but is not well established in the general population. HIV prevalence is consistently over 5% in at least one defined subpopulation, but below 1% in pregnant women in urban areas. This epidemic state usually suggests that active networks of risk exist within and between subpopulations.

In a *low-level (low-prevalence) epidemic*, HIV has not spread to significant levels in any subpopulation (less than 5% in any subpopulation). This suggests either that networks of risk are diffuse, or that the virus has been introduced only very recently.

Evaluation: Evaluation is a rigorous, scientifically-based collection of information about programme activities, characteristics and outcomes that determine the merit or worth of a specific programme. Evaluation studies are used to improve programmes and inform decisions about future resource allocations.

HIV testing and counselling: Until recently, the primary model for providing HIV testing and counselling has been client-initiated HIV testing and counselling (CITC), also known as voluntary counselling and testing (VCT), in which individuals must actively seek an HIV test at a health or community-based facility. The new WHO/UNAIDS guidance recommends provider-initiated testing and counselling (PITC), in which the health-care provider specifically recommends an HIV test to patients attending health facilities.

Indicator: This is a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, reflect changes connected to an intervention, or help assess the performance of a development actor.

Integrated biological and behavioural survey: *See* second-generation surveillance.

Intervention: An intervention is a set of activities implemented by a project and is often provided at the community level.

Mid-media: Compared with the mass media, mid-media covers a smaller number of audiences with more targeted information, such as drama, street theatre, entertainment shows and competitions.

Monitoring: Monitoring is the routine tracking of the key elements of a programme or project, and its intended outcomes. It usually includes information from record-keeping and surveys – both population- and client-based.

Most-at-risk populations: Most-at-risk populations (MARPs) are those populations with a concentration of risk behaviours that lead to efficient HIV transmission, which may then drive the majority of new infections. Behaviours that put people at greater risk of HIV infection include high rates of unprotected sex (e.g. female sex workers and their clients), unprotected anal sex with multiple partners (e.g. men who have sex with men [MSM]), and injecting drugs with shared equipment and drug preparations (e.g. injecting drug users [IDUs]).

Outreach/outreach services: These are services that are used to reach underserved and affected populations in rural areas, and specific out-of-care segments of the population such as racial and ethnic minorities and individuals released from correctional systems.

Peer education: This is one of the most widely used strategies to address the HIV/AIDS pandemic and typically involves training and supporting members of a given group to effect change among members of the same group. These include changes in knowledge, attitudes, beliefs and behaviours at the individual, group or societal level.

Respondent-driven sampling: This is a sampling method for hard-to-reach

groups, i.e. groups that are small relative to the general population, and for which no exhaustive list of population members is available. Respondents recruit their peers, as in network-based samples, and researchers keep track of who recruited whom and their numbers of social contacts.

Second-generation surveillance: This involves the regular, systematic collection, analysis and interpretation of information for use in tracking and describing changes in the HIV/AIDS epidemic over time. It also gathers information on risk behaviours, using it to warn of or explain changes in levels of infection. As such, second-generation surveillance includes, in addition to HIV surveillance and AIDS case reporting, STI surveillance to monitor the spread of STI in populations at risk for HIV, and behavioural surveillance to monitor trends in risk behaviours over time.

Sex worker: Person who engages in sex work, or the exchange of sex for money, which includes many practices and occurs in a variety of settings. These may include “direct” or “formal” sex workers, who are sometimes included in registries and often found in brothels, and “indirect” or “casual” sex workers, who do not engage in sex work full time and are unlikely to be included in registries.

Social marketing: Social marketing is a research-driven, consumer-centred process used in the field of public health to change individuals’ behaviour. Social products such as condom use are viewed as commercial products and promoted using the same principles as those applied in the commercial sector. When used properly, social marketing-based public health interventions can help to prevent and control STIs and HIV.

Syndromic management of STIs: The syndromic management approach is based on the identification of consistent groups of symptoms and easily recognized signs (syndromes) of STIs, and the provision of treatment that will deal with the majority of, or the most serious, organisms responsible for producing a syndrome.

Targeted interventions: These interventions offer prevention and care services to specific populations within communities by providing them with

the information, means and skills they need to minimize HIV transmission, and improving their access to care, support and treatment services.

Time–location cluster (sampling): This sampling approach takes advantage of the fact that some hidden populations tend to gather or congregate at certain types of locations. For example, sex workers often congregate at brothels, massage parlours and street corners; MSM in bars and “cruising areas”; IDUs at “shooting galleries”. In time–location sampling (TLS), such sites are enumerated in a preliminary ethnographic mapping exercise; the list of sites so developed is used as a sampling frame from which to choose a probability sample of sites, and data are gathered from either all or a sample of subgroup members found at the site during a pre-defined time interval (e.g. a randomly chosen three-hour time period on a randomly chosen day of the week).

Types of FSWs (establishment-based, street-based, floating):

Establishment-based sex workers work in premises, and managers and/or pimps act as clearly defined authorities and intermediaries between the sex worker and client. This type of sex work is often found in Asia. Informal FSWs, such as streetwalkers and self-employed call-girls, usually find their clients independently. Occasional sex workers may sell or trade sex to meet short-term economic needs (e.g. school tuition, a family financial crisis).

Universal access: The concept of universal access implies that all people who need them should be able to have access to information and comprehensive services for HIV prevention, treatment, care and support. Scaling up towards universal access should be equitable, accessible, affordable, comprehensive and sustainable. In most cases, countries set 80% as the target for universal access.

ACRONYMS AND ABBREVIATIONS

100% CUP	100% Condom Use Programme
ART	antiretroviral therapy
BCC	behaviour change communication
BSS	behavioural surveillance survey
CBO	community-based organization
CT	<i>Chlamydia trachomatis</i>
CUP	Condom Use Programme
DIC	drop-in centre
EE	entertainment establishment
EPP	estimates and projection package
FSW	female sex worker
GC	gonococcus (<i>Neisseria gonorrhoeae</i>)
GUD	genital ulcer disease
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HSV	herpes simplex virus
IBBS	integrated biological and behavioural survey
IEC	information, education and communication
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MSW	male sex worker
NGO	nongovernmental organization
NGU	non-gonococcal urethritis
OI	opportunistic infection
ORW	outreach worker
PEPFAR	President's Emergency Plan for AIDS Relief (US Government)
PID	pelvic inflammatory disease
PMTCT	prevention of mother-to-child transmission (of HIV)
RDS	respondent-driven sampling
RPR/VDRL	rapid plasma reagin/Venereal Disease Research Laboratory (tests for syphilis)
SEARO	Regional Office for South-East Asia (of WHO)

SGS	second-generation surveillance
STI	sexually transmitted infection
SW	sex worker
TI	targeted intervention
TLC	time–location cluster (sampling)
UA	universal access
UD	urethral discharge
UNGASS	United Nations General Assembly Special Session (on HIV/AIDS)
VCT	voluntary counselling and testing
WHO	World Health Organization
WPRO	Regional Office for the Western Pacific (of WHO)

**TOOLKIT FOR MONITORING AND EVALUATION
OF INTERVENTIONS FOR SEX WORKERS**

1

Introduction

Why monitor targeted interventions for female sex workers?

Targeted interventions (TIs) for high-risk groups, including female sex workers (FSWs) should be a core programme for both HIV/AIDS and sexually transmitted infection (STI) control programmes. They should be implemented in areas with low-level, concentrated and generalized epidemics of HIV, where a large number of infections can be attributed to sexual transmission.

Efforts are needed to ensure that the resources spent on TI programmes result in preventing new HIV infections among FSWs and their clients, and thereby among the general population. Effective programmes require supportive monitoring data that managers can use to make decisions about how to design their programmes and adjust them if data show that they need to be improved.

What is the focus of the toolkit?

This toolkit focuses on TIs for FSW populations. It draws upon almost two decades of experience from programmes implemented by the World Health Organization's (WHO) Western Pacific and South-East Asia Regions (WPRO/SEARO). While examples and issues specific to FSWs are highlighted, many of these issues would be common to male sex worker (MSW) interventions, and the approaches can be adapted to meet the needs of MSWs.

What can the toolkit do for you?

This toolkit aims to demonstrate how a small number of recommended

indicators can provide critical information to guide interventions. These tools can be used at different levels of management to track the progress of a programme and focus efforts on achieving targets. Special attention is paid to how data can be used by on-site managers to help them make periodic decisions.

Who can use this toolkit?

The intended audience for this toolkit includes the following:

- **Project directors or project managers of sites** who want to build effective programmes
- **Monitoring and evaluation (M&E) officers** from nongovernmental organizations (NGOs) who want to design or refine M&E systems for rolling out interventions to a large number of sites
- **State/provincial health officers** responsible for managing the scaling up and monitoring of FSW interventions
- **National M&E officers** assessing the contribution of FSW interventions to controlling the epidemic.

What is included in the toolkit?

- An overview of the objectives of and services required for an FSW intervention
- The key steps and best practices for setting up an M&E system for FSW interventions (as part of an existing system)
- Recommended critical indicators
- Examples of using M&E data at site level to address critical issues of FSW interventions
- Examples of using M&E data at higher levels (state/provincial or national) to manage FSW interventions on a large scale.

Throughout the toolkit, real-world examples are used from different countries implementing FSW interventions in the Region to illustrate how data can guide management actions.

This document is not intended to describe best practices in FSW TIs or to cover every monitoring and evaluation (M&E) issue related to them. There are existing guidelines that describe various aspects of M&E for most-at-risk populations (MARPs) including guidelines on indicators, population size

estimation and target-setting. This toolkit is meant to complement other existing guidelines.^{1,2,3}

¹UNAIDS. *A framework for monitoring and evaluating HIV prevention programmes for most-at-risk populations*. Geneva, UNAIDS, 2008. Available at: http://data.unaids.org/pub/Manual/2007/JC1519_me_Framework_en.pdf (accessed on 28 August 2009).

²UNAIDS/WHO Working Group on HIV/AIDS/STI Surveillance. *Estimating the size of populations at risk for HIV: issues and methods*. Geneva, FHI, 2003. Available at: http://data.unaids.org/Publications/External-Documents/EstimatingPopSizes_en.pdf (accessed on 28 August 2009).

³WHO/UNODC/UNAIDS. Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (IDUs). Geneva, WHO, 2008 (draft). Available at: <http://www.who.int/hiv/idu/TechnicalGuideTargetSettingApril08.pdf> (accessed on 28 August 2009).

2

Overview of interventions for female sex workers (FSWs) and clients

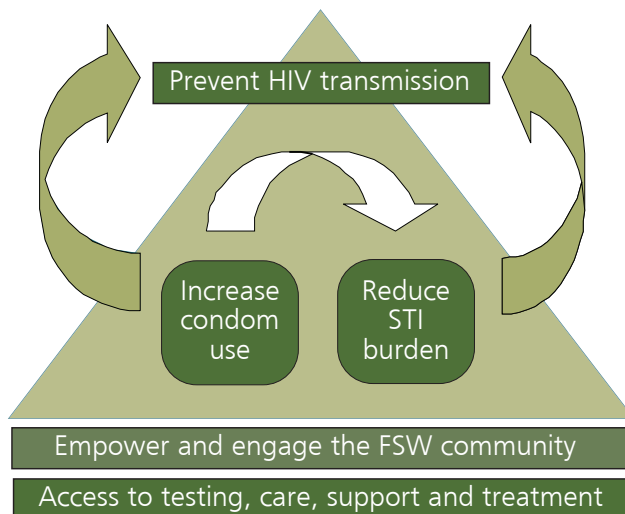
2.1 Goals and objectives of interventions for FSWs

The overarching goal of a TI for FSWs is to prevent the transmission of HIV.

To achieve this goal, programmes must meet four key objectives:

- An increase in condom use
- A reduction in the burden of curable STIs
- Empowerment and engagement of the FSW community in the programme; and
- An increase in access to services for testing, care, support and treatment.

Figure 1. How programme objectives lead to achieving programme goals



Meeting the first two objectives can reduce the likelihood of transmission of STIs, including HIV, between FSWs and clients. Community empowerment and engagement can improve long-term sustainability and the pace at which TIs can be scaled up. Scaling up FSW interventions requires structural approaches to address the root causes of the problem, including barriers to condom use, and using the power dynamics and systems involved in sex work to support HIV prevention. The role of testing, care, support and

Tracking STIs other than HIV in low-level epidemics

In some regions of Asia, HIV prevalence is still very low among FSW populations (<1%). This provides an important opportunity to prevent the emergence of HIV in these areas. FSW interventions are equally relevant for these areas. While prevention of HIV is an important outcome, prevention of other STIs becomes a more immediate and concrete goal for the TI programme in these areas. In these settings, prevention of STIs may be the goal of the FSW intervention.

treatment is multidimensional. The inclusion of additional services that may be important for FSWs can make participation in the intervention more attractive to them. HIV testing and counselling increase access to HIV treatment and support, and provide an opportunity for positive prevention, which should be encouraged. As the HIV prevalence among FSWs rises, it is also critical to ensure that these vulnerable and marginalized women are able to receive early care, support and treatment. In addition, FSWs should be able to access reproductive health services.

2.2 Service components of interventions for FSWs

An intervention for FSWs may include many different components to achieve the programme's objectives. The specific mix of components adopted by any country or by agencies implementing interventions will vary depending on:

- the type of FSW (e.g. establishment-based vs street-based or floating)
- the amount of resources available

- the presence and capacity of the public and NGO sectors, and
- the local context.

A brief description of the different components is provided below.

2.2.1 Advocacy/enabling environment

- **Policy change:** This includes effecting laws and regulations that allow interventions for FSWs to operate without disruption to ordinances that establish 100% condom use and powers of enforcement.
- **Local advocacy:** Support should be gained from local power brokers (establishment owners, “madams”, pimps, brokers, local police) to support condom use among or access to intervention services by FSWs.

2.2.2 Mapping

Listings and characteristics of places where FSWs operate must be regularly updated. These are used to estimate the size of the FSW population, guide sampling for surveillance surveys and manage service coverage.

- Listings of entertainment establishments (EEs) and hot spots
- Geographical and social mapping of EEs, solicitation points and hot spots.

2.2.3 Condom programming

- **Promotion of condom use and distribution of free condoms:** Condom use should be promoted during outreach and peer education, and in STI clinics. Free condoms are procured by the project and distributed through outreach or condom boxes placed at convenient locations (e.g. sex venues, solicitation points or drop-in centres [DICs]).
- **Social marketing of condoms:** Condoms should be sold at subsidized rates and targeted at locations where high concentrations of clients and FSWs are found. Such marketing is usually accompanied by mass media advertising campaigns and branding of subsidized condoms.

2.2.4 Clinical services for STIs

- **Routine screening for STIs:** FSWs are encouraged to come for periodic physical examinations to look for signs and symptoms of STIs, testing for curable STIs (e.g. syphilis) or treatment for asymptomatic STIs. The frequency of routine screening and treatment will vary from programme to programme (e.g. monthly, quarterly, six-monthly, etc.).

- **Syndromic management of STIs:** In many areas, syndromic management is the most feasible method of diagnosing STIs and providing same-day treatment for probable infections.
- **Etiological management:** In some settings, resources to diagnose curable STIs on the basis of laboratory test results are available. Syphilis is the most common STI diagnosed through laboratory tests.

2.2.5 Outreach services/drop-in centres

- **Outreach:** Professional outreach workers or trained peer educators make regular visits to establishments or solicitation points to provide FSWs with condoms, referrals for service, counselling on behaviour change, or help in solving other problems.
- **DICs:** These are safe spaces in convenient locations for FSWs to come and access services or rest and socialize with other FSWs. If clinical services are provided by the intervention, the clinics are often co-located at the DIC.

2.2.6 Behaviour change communication

Key messages may include promotion of condom use and encouragement to seek information about treatment services.

- **Interpersonal communication:** This type of behaviour change communication (BCC) is delivered to FSWs either one-on-one or in small groups by outreach workers or peer educators. Effective interpersonal communication strategies should use customized messages and require outreach staff to establish a rapport and be highly interactive with the audience.
- **Mass or mid-media:** Behaviour change messages are delivered through advertisements on billboards/posters or commercials on radio and/or television.

2.2.7 Peer education and management of services

- **Progression from peer education to management:** This involves a formal and structured progression of FSWs to develop from peer educators to field coordinators or DIC/clinic managers, and/or participate in decision-making about the intervention. Capacity building and mentoring of FSWs are explicit components of the design of the intervention.
- **Community engagement in programme monitoring:** These are systems or mechanisms by which FSW communities provide their inputs and

feedback to the services they have received, and their needs, opinions and assessment of the performance of the intervention and the staff.

2.2.8 Testing, care, support and treatment

- **On-site services:** A range of clinical services may be offered on site to improve access for vulnerable or marginalized populations. Such services should follow the national guidelines on service quality and can be adapted to meet the special needs of FSWs (e.g. voluntary counselling and testing [VCT] for FSWs).
- **Referral linkages:** Where it is not feasible to provide such clinical services on site, alternative service providers are identified and a system of referral with follow up established to ensure that FSWs can access services.

2.3 Service components of interventions for clients of FSWs

There are two challenges to implementing cost-effective intervention programmes for clients – the large size of this population and the difficulty in defining a group of clients that can be easily reached through an intervention.

Social marketing of condoms uses a mass media or mid-media approach to reach large numbers of potential clients of FSWs to promote condom use.

Establishing high-quality and confidential STI services for male clients and regular partners of FSWs can reduce the likelihood of reinfection with STIs among FSWs.

Outreach for behaviour change and condom distribution to potential clients is a more intensive intervention. This approach is effective if targeted at locations where large proportions of men are clients of FSWs (e.g. near solicitation points, dormitories where single male migrants are housed). This approach can also be used for providing workplace interventions for uniformed personnel, miners, seafarers, etc.

3

General approach to effective monitoring and evaluation (M&E)

An M&E system can support all levels of management. We can think of an M&E system as being designed to help identify and solve problems at different levels of management. The approach to these problems can be organized through a series of questions.

1. Are we doing the right thing?

Through an initial and continually updated analysis of the epidemic situation, we can determine the type of response that is the most appropriate and the package of services that is necessary for an effective FSW intervention. This will help us to match the resources (i.e. inputs) to the need. This kind of assessment needs to be done at the **site level** as well as for the bigger picture at higher levels (i.e. at the **state/provincial** or **national level**).

2. Are we doing it right?

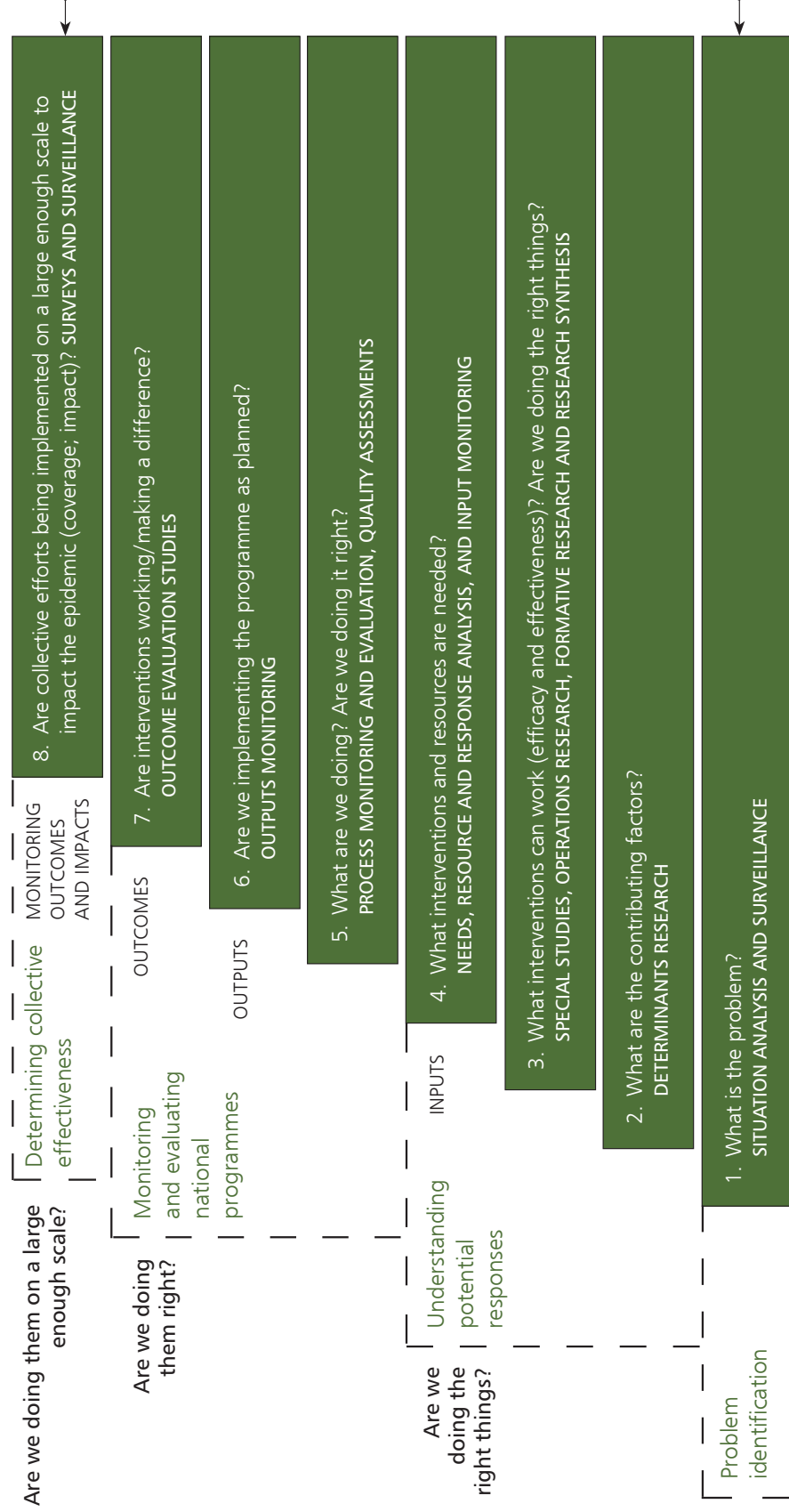
For each site, what are we doing (i.e. what is the level of activity; does it follow standards)? Are we doing them to standard (i.e. are the outputs meeting our targets)? Are they making a difference (i.e. are there signs that the FSWs served are using more condoms and acquiring fewer STIs)?

3. Are we doing it on a large enough scale?

At the state/province or national level, are we beginning to see changes in the FSW population overall and is this slowing the growth of the epidemic (i.e. is the coverage of the programme large compared with the estimated need)?

Designing or improving an M&E system to help answer these questions requires a few basic steps.

Figure 2. A public health questions approach to unifying HIV monitoring and evaluation



Source: UNAIDS. *A framework for monitoring and evaluating HIV prevention programs for most-at-risk populations*. Geneva, UNAIDS, 2008. Available at: http://data.unaids.org/pub/Manual/2007/JC1519_me_Framework_en.pdf (accessed on 28 August 2009).¹

3.1 Basic steps for designing/strengthening an effective M&E system

Step 1

Know how the data will be used: Knowing which data are needed for decision-making ensures that the right data are collected and managers know what to look for.

- Create an analysis plan, including the format for the tables and graphs you want to develop at site level and state/provincial level.
- Develop a list of essential data you need to collect to create these tables and graphs.

Step 2

Standardize definitions and M&E formats across sites: Large-scale programmes use standardized approaches to maintain quality. M&E systems also benefit from standardization to clarify expectations on what the programmes will achieve. Standardization also enables comparisons across sites and over time (*see Annex 1*).

- Use the list of essential data identified in Step 1 to create a set of uniform data collection formats that capture this information.
- Use the programme guidelines to decide which definitions should be used, who will collect which data and how frequently, who will collate which data and how frequently.
- Develop explicit instruction sheets for completing all forms, including definitions for each item of data.
- Document the entire process in an M&E plan (*see Annex 1* for a template).
- Include the M&E plan for FSW interventions in the guidelines and initial training for implementers.

Step 3

Check to ensure that data collection and collation formats are easy to use: To increase the chances of obtaining correct and complete information, M&E formats should be designed so that they are easy to fill in by the busy people who will use them.

- Test the data collection and collation forms in real-world settings using the people assigned to collect the data and get their ideas and feedback about how to improve the forms.

- Match the responsibility for collecting the data to the people who are responsible for conducting the activity.
- Identify ways in which the M&E formats can support supervisory or management activities that are already taking place.
- Reduce the chances of duplicate recording of the same information in multiple ledgers or registers.

Step 4

Set and use targets to judge performance:

- Indicators without targets have little meaning. Spend time on setting targets when the indicators are defined (*see* Chapter 4).
- Ensure that the targets are consistent with the budgets and reflect the capacity/expectations of implementers.
- Refer to targets when presenting routine monitoring data and rating the performance of a site or programme.

Step 5

Invest in systems where data are used by the sites: M&E data are necessary for managers at all levels. Using data locally will help to identify problems early and develop realistic solutions. When site managers use the data, the quality of data collection also improves.

- Invest resources in training and tools for local managers to use the data to adjust their programme and identify staff that need more supportive supervision.
- Schedule regular meetings for managers to review the M&E data with their teams.
- Develop guidelines on the reporting schedule, flow of reporting, and roles and responsibilities.
- Establish a system to provide feedback to reporting units.

Step 6

Ensure adequate human and financial resources for M&E: A high-quality M&E system requires resources as do other aspects of a TI programme.

- Assess the staff time required for collecting, compiling and analysing routine monitoring data. Build this into the terms of reference for specific positions.
- Develop explicit modules for M&E and incorporate these in the training

programmes of staff who are involved in collecting, compiling and analysing data.

- Ensure that supervisors are familiar with the M&E responsibilities of their staff, and have the skills to interpret and scrutinize routine monitoring data.

3.2 Modifying the M&E system to match the programme life-cycle

It is always better to have a **reliable, well-defined basic dataset** rather than a sophisticated dataset of unknown quality or standardization. New M&E systems should start simply. As capacity for data collection and analysis grows over time, a solid basic M&E system can be modified to capture more complex measures of the achievements of the programme.

For example, **basic** data collection systems count the number of outreach **contacts** made by peer educators. More **advanced** systems count the number of **individuals** who receive outreach services.

Another aspect of upgrading the M&E system relates to issues that are more important for the programme during the start-up compared with the scale-up phase. New sites (i.e. those in the first six months of implementation) should focus more on indicators that measure achievements in establishing infrastructure:

- setting up a DIC (start date or hours of operation of the site)
- hiring and training of staff (e.g. monitoring vacancies)
- setting up distribution systems (e.g. avoiding stock-outs).

Once these milestones have been achieved, managerial attention should shift to more routinely collected quantitative indicators of coverage:

- Number of contacts or individuals who have been contacted
- Number of condoms distributed
- Proportion of FSWs who have come for a routine STI exam/screening.

3.3 How to manage change in an M&E system

While it is important for the system to be flexible to the evolving needs of the programme, careful thought should be put into the initial design as well as any modifications to the M&E system. Change in an M&E system can be very disruptive to a programme and great care should be taken to plan and manage the process.

- Changes should take place infrequently, especially when large numbers of staff are impacted.
- Staff should be informed in advance that changes in the M&E system are planned.
- The reasons or need for changes in the system should be communicated clearly to the staff involved (e.g. why the change will provide more useful information; how the change will improve the programme’s ability to provide services).

It is also critical to document when the definitions or methods for collecting M&E data have changed, especially if this change does not occur uniformly across different geographical areas. This is essential for interpreting trends over time or comparing data across sites. This type of noting should be included in graphs or charts showing M&E data. This will help to distinguish real changes in the population or the services provided from artificial sharp increases or decreases due to changes in the definitions or methods of reporting data.

3.4 Techniques for effective analysis and use of data

While designing or updating an M&E system, equal attention must be paid to the data collection aspect and the analysis/use aspect.

Start by making a plan. Ideally, an explicit plan for analysis is developed at the same time that indicators are chosen so that the data collection tools provide the data in the form in which they are needed.

An analysis plan is a document that provides enough detail to know:

- Which graphs and tables will be created
- What data are needed for each chart and from where they will be available
- Whether indicators will be shown separately for specific subgroups
- How groups or sites will be compared
- What the targets are.

Make sketches of the different graphs or tables that will be used to present the data. **Hold a meeting** with other stakeholders to brainstorm on how these types of figures should look, which will also help people **visualize what “success” looks like**. Talk about these issues at the beginning of the project implementation period. Make sure that everyone shares the same expectations about how data can be used to assess performance.

Through this exercise, you may find that not all the data needed for the ideal graph can be gathered and **a compromise must be made** about which data may be a good substitute and the **cautions that one must exercise in interpreting the data**.

With a draft analysis plan, it will be possible to adjust the indicators and data collection tools so that they meet the analytical needs of the programme at multiple levels.

Choose a meaningful reporting unit. The reporting unit represents the lowest local unit at which data can be analysed. For M&E of FSW interventions, the reporting unit should be based on the most meaningful definition of a site. It is almost always important to report routine monitoring data separately by MARP, e.g. to report FSW service statistics separately from those provided to men who have sex with men (MSM), even if the same NGO is working with both groups in the same areas. There are several possible choices, depending on how the services are organized.

Possible reporting units	When is this unit useful?
1. Administrative units (e.g. district or cities)	When a single NGO is contracted to provide services by discrete administrative/geographical units
2. Primary site of service (e.g. DIC or STI clinic)	When multiple NGOs work in the same geographical area but provide services in areas bounded by a fixed site
3. The administrative unit relevant for planning	When HIV programme budgets are allocated or controlled by a local authority such as a district, then having this as a reporting unit can build ownership and accountability

Summarizing the data across sites is another challenge in presenting M&E data. Many senior managers and policy-makers want a single number to describe how a programme is doing. This is difficult, especially when performance is uneven in different sites. When summarizing data across multiple sites, two basic approaches may be followed:

- Describe the achievements in terms of the percentage/number of sites that achieve their site-level targets (e.g. percentage of sites which cover 80% of FSWs in the area).
- Pool the data across sites (e.g. average percentages, or sums of counts).

Using the site as a unit of the indicator at the state or national level is a more meaningful way of examining data. It is useful to identify sites that are underperforming and may need more attention at the state or national level.

Box 1. Differences in summarizing data across sites

For example, if there are 5 sites in a province:

Site	No. of FSWs in area	Coverage
A	1000	50%
B	800	80%
C	900	90%
D	750	30%
E	850	80%

Obtaining a pooled estimate (crude average = 66%) of coverage may mask the gross underperformance of some sites, i.e. 2 out of 5 sites have 50% coverage or less. However, if pooling the data is the manner in which indicators are summarized across sites, data should be weighted to reflect the different sizes of FSWs in different sites.

For example, if there are 3 FSW interventions in a province:

Site	No. of FSWs in area	Coverage
A	5000	50%
B	500	80%
C	1000	90%

Doing a straight average of the percentage of coverage would give an overall coverage of:
 $(50\% + 80\% + 90\%)/3 = 73\%$ coverage

Compared with a more appropriate weighted average of:
 $(5000*50\% + 500*80\% + 1000*90\%) / (5000+500+1000) = 58\%$ coverage

3.5 Choosing the right denominators for coverage indicators

Coverage is one of the most important aspects of measuring the achievements of interventions, whether it is the provision of a specific service or the distribution of commodities such as condoms. The denominator chosen will differ according to how the indicator is being used to judge performance.

When the performance of an implementing agency (e.g. NGO) is being assessed, a useful denominator for outreach coverage may be the number of FSWs estimated in the catchment area. However, if the indicator is being used to assess a broader level of impact on the epidemic (i.e. national or provincial level), then the denominator should relate to the entire population in the geographical area, not just the ones that are in the immediate project area assigned to an NGO.

When selecting denominators for coverage indicators related to the distribution of commodities, the calculation of need will be based on the size of the FSW population multiplied by the frequency of sex acts with clients in a given period of time. As described above, an appropriate denominator should be used for calculating the coverage.

Additional resources for designing M&E systems for FSW interventions

There are many resources for learning about other types of M&E including impact evaluation, cost-effectiveness analysis, service quality assessment.

- *Setting national targets for moving towards universal access.* Geneva, UNAIDS, 2008.
- *Monitoring and evaluation toolkit for HIV/AIDS, tuberculosis and malaria.* Geneva, Global Fund to Fight AIDS, Tuberculosis and Malaria, 2006.
- *Toolkit for targeted HIV/AIDS prevention and care in sex work settings.* Geneva, WHO, 2005.
- *Guidelines for the effective use of data from HIV surveillance systems.* Geneva, WHO/UNAIDS, 2004.
- *Practical guidelines for intensifying HIV prevention: towards universal access.* Geneva, UNAIDS, 2007.

4

Recommended indicators and target-setting

The following indicators are recommended for effective M&E of interventions for FSWs. They represent a minimum set for tracking progress at the national or state/provincial level. Additional indicators may be useful at the site level to support data-driven management of activities on a day-to-day basis. Additional indicators may also be needed to reflect a specific country's priorities or national guidelines for FSW interventions.

4.1 Indicators

The indicators recommended in Table 1 were selected using the following criteria and approach:

- Does the indicator address one of the primary objectives of the intervention?
- Is the selected indicator a reliable and timely measure of progress?
- Does the indicator measure something that will result in action taken by management?
- Can the data be collected in a feasible manner?

When a country decides to add more indicators to their national monitoring framework, similar criteria can be applied.

In Table 1, each indicator is phrased in two ways. The first column defines the indicator when used for an individual site. The second column defines the indicator when used to summarize performance across several sites or districts. The remaining columns in the table describe useful ways to break down the data for different subgroups; the frequency at which the data need to be analysed; the source of the data; and whether the indicator is part of the set recommended by important international guidance.^{4,5,6} Finally, the

last column in the table provides additional notes or cautions about applying some of the indicators.

⁴UNAIDS. *Monitoring the Declaration of Commitment on HIV/AIDS. Guidelines on construction of core indicators: 2010 reporting*. Geneva, UNAIDS, 2009. Available at: http://data.unaids.org/pub/Manual/2009/jc1676_core_indicators_manual_09_en.pdf (accessed on 03 September 2009).

⁵WHO. *Monitoring and reporting on the health sector response towards universal access to HIV/AIDS treatment, prevention, care and support 2009–2010*. Available at: http://www.who.int/hiv/universalaccess2010/hiv_me_framework_2009-10.pdf (accessed on 03 September 2009).

⁵ *Indicators for monitoring the Millennium Development Goals*. Vienna, UN Department of Economic and Social Affairs – Statistics Division, 2003. Available at: <http://mdgs.un.org/unsd/mdg/Resources/Attach/Indicators/HandbookEnglish.pdf> (accessed on 23 August 2009).

Table 1. Indicators for effective monitoring and evaluation of interventions for female sex workers

Indicator for individual sites	Indicator when looking across sites*	Useful break-down by †	Frequency	Data source	Indicator included in other guidelines	Notes for use
1a. % of FSWs contacted through outreach §	% of sites that cover >80% of estimated FSWs	Typology Time in sex work	Quarterly	Outreach register	UNGASS	Contact must be defined by national guidelines
1b. % of EEs with active involvement in TIs #	% of sites that cover >80% of EEs		Annually	EE register		
2. # of condoms distributed	% of sites meeting >50% of estimated condom need		Quarterly	Various		
3. % of FSWs who came for STI screening in the past 6 months	% of sites where >75% of FSWs come for regular screening	Typology Time in sex work	Every 6 months	Clinical records		Frequency of screening should reflect national guidelines
4. % of TI sites that offer on-site or referral linkages to care, support and treatment	% of TI sites that offer on-site or referral linkages to care, support and treatment		Annual	Site register		
5. % of FSWs who received an HIV test in the past 12 months and who know their results	% of sites where >80% of FSWs covered with HIV testing	Typology Time in sex work	Every 2 years	FSW surveys	UNGASS, UA	
6. % of FSWs who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	% of sites where >80% of respondents have correct knowledge of HIV		Every 2 years	FSW survey	UNGASS	

Indicator for individual sites	Indicator when looking across sites*	Useful break-down by †	Frequency	Data source	Indicator included in other guidelines	Notes for use
7. % of FSWs reporting the use of a condom with the most recent client	% of sites with >70% FSWs reporting condom use at last sex	Typology Time in sex work	Every 2 years	FSW survey	UNGASS, MDG	Additional condom use measures should be collected to help assess social desirability bias
8. % of FSWs who feel able to refuse a client if a condom is not used	% of sites where >75% of respondents can refuse a client	Typology Time in sex work	Every 2 years	FSW survey		
9a. Number of STI cases among FSWs	% of sites with STI prevalence among FSWs >20%	Typology First time to clinic	Quarterly	Clinical records		The relevant STI may vary by area. This indicator identifies poorly performing sites
9b. Number of new STI cases among males reported at STI clinics	% of sites showing declines in numbers of STI cases among males		Quarterly	Clinical records		Indicator should be measured at sentinel STI clinics in relevant areas
10. HIV prevalence among FSWs	% of sites with HIV prevalence among FSWs >5%	Typology Time in sex work	Every 2 years	FSW survey	UNGASS, UA	This indicator identifies poorly performing sites

UA universal access; UNGASS United Nations General Assembly Special Session; MDG Millennium Development Goals

* The numeric thresholds (highlighted text) specified in the indicators in this column should be adjusted to reflect the national guidelines and end-line targets for FSW interventions in your country.

† The numeric thresholds specified in the indicators in this column should be adjusted to reflect the national guidelines and end-line targets for FSW interventions in your country.

§ The numeric thresholds specified in the indicators in this column should be adjusted to reflect the national guidelines and end-line targets for FSW interventions in your country.

This indicator measures coverage that is relevant for interventions working with EE-based FSWs or those at fixed sex venues (e.g. hotels and lodges).

4.2 Target-setting

Target-setting is fundamental to effective M&E because targets concretely define what a successful project should achieve. Targets should be set for both cross-cutting and component-specific indicators, and should include both the achievements expected at the end of the project/implementation period (i.e. end-point targets) as well as interim levels of achievement (e.g. annual targets) appropriate for the expected trajectory of scaling up services. Interim targets help managers to measure the progress of a programme and to trigger modifications in programme design to ensure that the overall programme objectives will be met.

Targets should be set with the input of local stakeholders, especially implementers who have experience in providing services and who can comment on whether the targets are realistic, given the anticipated resources.

The targets chosen should also match the budgets and formal agreements (e.g. contracts) made with the implementers. For example, if an NGO is expected to reach 80% of the FSWs mapped, the budget should be adequate for it to reach this number.

The most important target for TI programmes is the coverage of the programme. This can either be defined by outreach or active involvement of EEs in TI programmes.

- Setting a coverage target should be partly based on the proportion of FSWs who must be reached in order to make a substantial impact on the HIV epidemic. Saturated coverage is often described as reaching 80% of the total FSWs in the catchment area.
- Coverage targets must also be adjusted at the local level to take into consideration available resources, programme experience and the size of the total FSW population.

5

Using data from monitoring and evaluation

This chapter reviews three different uses of M&E data and gives specific examples of how the data from different indicators can be used in graphs and figures to provide managers with answers about how the programme is performing.

5.1 Using M&E data to answer questions on programme management

There are three main types of management questions that require M&E data to make informed decisions about the programme.

5.1.1 How can daily operations be improved?

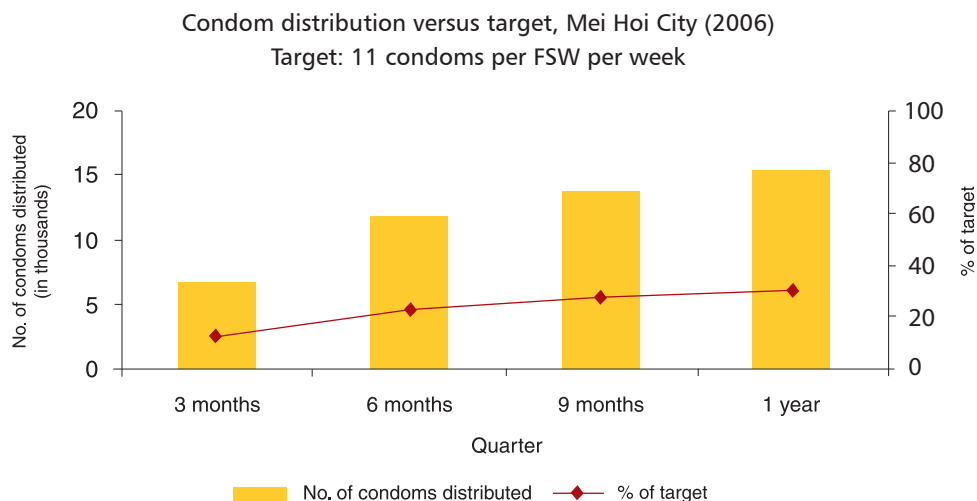
Answering this question requires on-site managers to regularly review the routine monitoring data to determine if activity targets are being reached, and identify areas where implementation is weak or there are emerging problems. As issues emerge, the data can be examined more carefully in problem-solving sessions with on-site staff.

5.1.2 Which sites are performing well and which need more support?

To compare the performance across sites, national or regional managers need a broader perspective on the M&E data to determine how well implementers are scaling up FSW interventions. Managers may assess sites to be weak or strong based on (1) which sites achieve their targets; (2) which sites have much higher or lower performance across different indicators; or even by (3) which sites have shown the greatest improvement in performance over time. The following example shows how data from a single site can be compared in these three different ways.

Box 2. Are enough condoms being distributed to meet the local need?

Local managers use data to improve services.



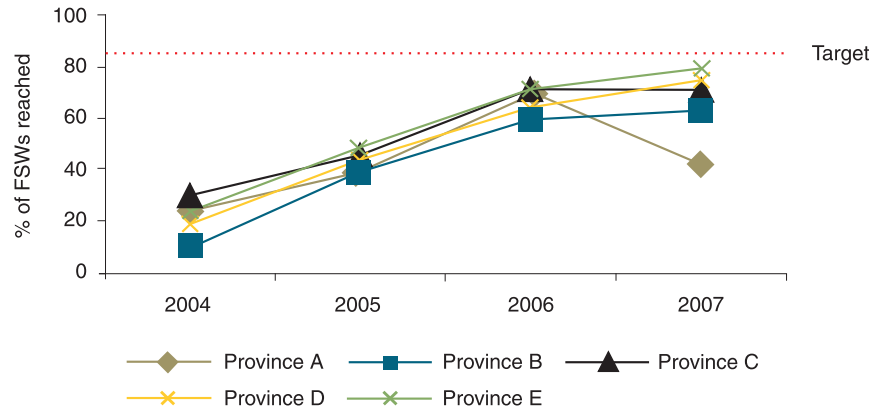
What the data showed: At the TI DIC in Mei Hoi City, condom distribution is less than 25% of the expected target, even six months into the project. Through further review, the local managers find that the number of condoms taken from condom boxes is very low, despite a large number of condom boxes being put in different parts of the city.

What further probing into the data revealed: During the weekly meeting with the outreach staff, the local manager asks about this issue. Peer educators report that the condom boxes are not in places where FSWs can take condoms discretely and they are afraid of being identified as FSWs if they use the condom boxes.

Resulting programmatic follow up: The group decides to ask FSWs about more suitable locations for the condom boxes and make a plan for relocating the boxes. For the next few months, the numbers of condoms distributed is monitored to see if the new placement of condom boxes is making a difference.

Box 3. Which sites need more support?
National managers use data to identify weak sites.

Coverage of FSWs by peer educators in the past 12 months, by province, Country X, 2004–2007



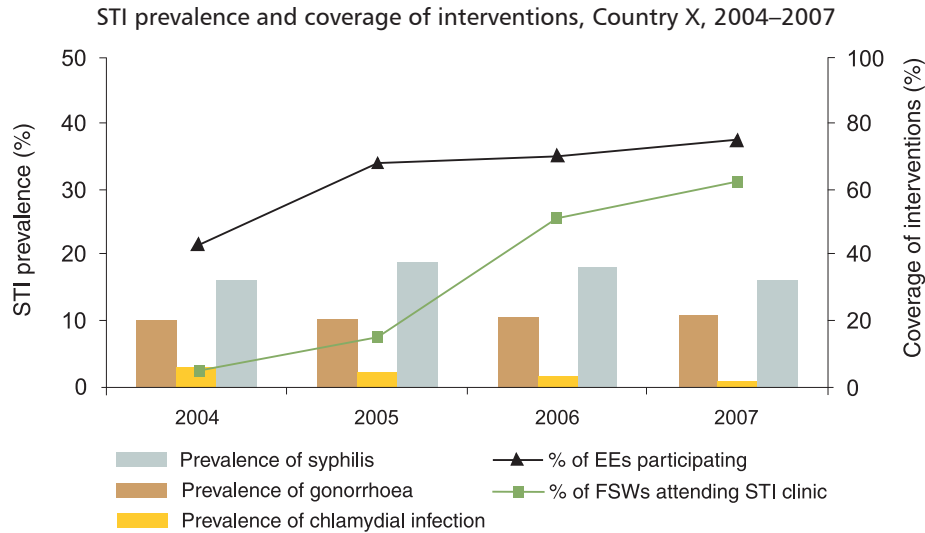
What the data showed: This year, programme coverage in Province A has been reported to be 40% lower than the previous year’s coverage level and a third lower than other provinces with similar characteristics.

What further probing into the data revealed: The national programme officer arranges a teleconference with the local managers and selected TI staff to discuss the reasons for the low coverage. It appears that all other monitoring reports show good-to-strong results. However, updated mapping data were available for the first time in several years and a large increase in FSWs was found in Province A. This new denominator was used to calculate the most recent statistics and explained the lower coverage levels.

Resulting programmatic follow up: The local programme would like to expand its services to cover the additional FSW population, but their budget is based on the previous mapping data. The national programme officer requests the local manager to submit a revised budget and action plan to cover the larger numbers of FSWs.

Box 4. Is the evidence consistent in showing that the interventions are making a difference?

National managers use data to assess the response to the epidemic.



What the data showed: The 100% CUP in this low-prevalence country was started in five cities in 2004. Since the past year, routine monitoring data show that more than 75% of mapped EEs are actively involved in TIs across the five cities. Attendance at STI clinics has also increased steadily, with 60% of FSWs registered with the programme coming for screening every 6 months. Clinic records showed that distribution of condoms was high. However, a national community prevalence survey of curable STIs (gonorrhoea, chlamydial infection and syphilis) in 2004 and 2007 showed no decline. Prevalence data available from routine syphilis screening in the FSW STI clinics were plotted in 2005 and 2006 and showed a continuous trend.

What further probing into the data revealed: The survey protocols showed that the sample was designed to be nationally representative. More than half of the participants in the survey came from geographical areas that were not covered by the 100% CUP. Analysing the data from only respondents coming from the 100% CUP areas showed substantial declines in the prevalence of curable STIs. This suggests that the outcomes were as expected, and consistent with the other evidence of strong performance indicated by the routine monitoring data.

Resulting programmatic follow up: The graphs made with the reanalysed STI data were used in annual reports and meetings with stakeholders. The promising effect of the interventions was instrumental in mobilizing more funds to replicate the TI in another 10 cities.

Later in this chapter, more tips are provided for creating graphs and figures from data across sites.

5.1.3 Is the intervention likely to prevent new infections?

At the **national and subnational levels**, assessing the response to the epidemic or conducting an outcome evaluation is a critical issue. Previous experience in implementing FSW interventions show that sites which have good coverage and achieve targets for other process and output indicators are likely to prevent HIV transmission among core and bridge groups. However, national programmes must also have **more direct evidence that the expected outcomes of the TI programme** are being achieved. Specifically, these include: increase in condom use, reduction in STI levels, and empowerment and involvement of the FSW population in programme decision-making. This type of outcome evaluation requires searching for consistent evidence – from inputs to outcomes – that programmes are having the desired effect.

5.2 Specific examples of data use

5.2.1 Using data for improving site-level operations

The following section gives examples of what managers can do with data collected through the routine monitoring system, and provides examples of how to use and analyse these data for improving programmes at the site level.

These programme areas include:

- Outreach coverage (Indicators 1a and 1b)
- Condom distribution (Indicator 2)
- STI screening (Indicator 3)

Indicator 1a.

Indicator 1a. Percentage of FSWs contacted through outreach

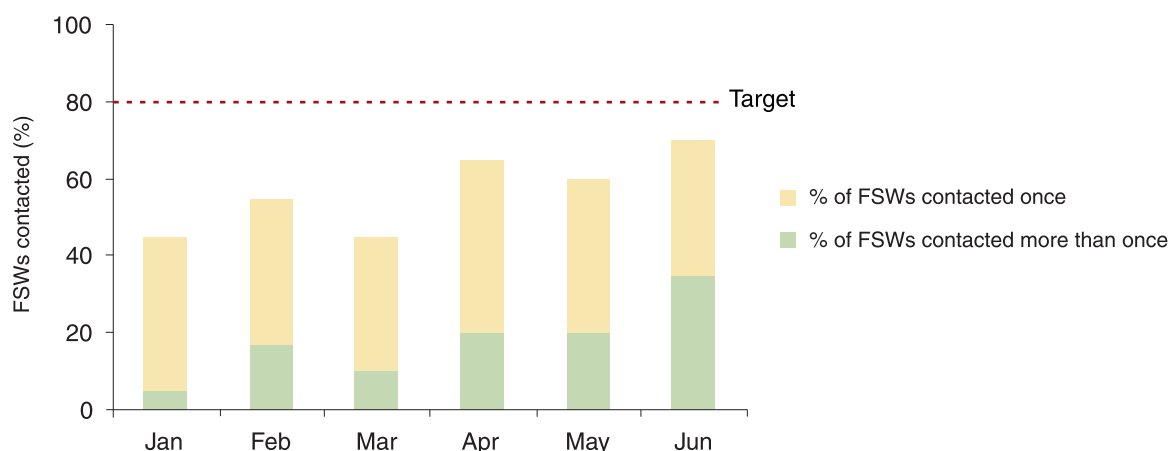
Coverage indicators are some of the most important monitoring tools for all levels of management. Coverage data can be displayed in multiple ways:

a. Assessing the percentage of FSWs who have been contacted and how many were contacted more than once

Managers can assess how good local coverage is, and whether outreach staff are able to sustain repeated contacts over time.

b. Comparing trends in outreach coverage with the use of other services

Figure 3. Percentage of FSWs contacted through outreach services, Site X, 2008



In Box 4, we saw an example of triangulating information from multiple programme data sources. While that example reviewed data from many sites, data from a single site could easily be reviewed.

c. Managing the productivity of outreach staff in making contacts

The data compiled to calculate outreach coverage can be extremely useful for day-to-day management at the site level. For interventions with an outreach component, outreach staff can be assigned weekly targets for the hotspots they cover. Through weekly review meetings, the ability to reach these targets and problem-solving around these targets can be discussed.

Table 2. Weekly monitoring of the productivity of outreach staff †

Outreach staff	Number of contacts (Target is ≥10 contacts per week)	
	This week	Average of previous 4 weeks
Rosalie (peer)	12	10.5
Marie (peer)	10	8.4
Maya (peer)	13	12.7
Ava (peer)	8	10.2
Valerie (ORW)	6	7.3
Sonya (ORW)	9	8.5
Peer average	10.7	10.4
ORW average	7.5	7.9
All staff average	9.7	9.6

† In this example, the programme has two types of outreach staff, peer educators who are current FSWs and work part time for the programme, and outreach workers (ORW) who are people with social work degrees and work full time for the programme and support the peer education programme in addition to doing direct outreach.

Examples of follow-up questions that managers might have after looking at these data

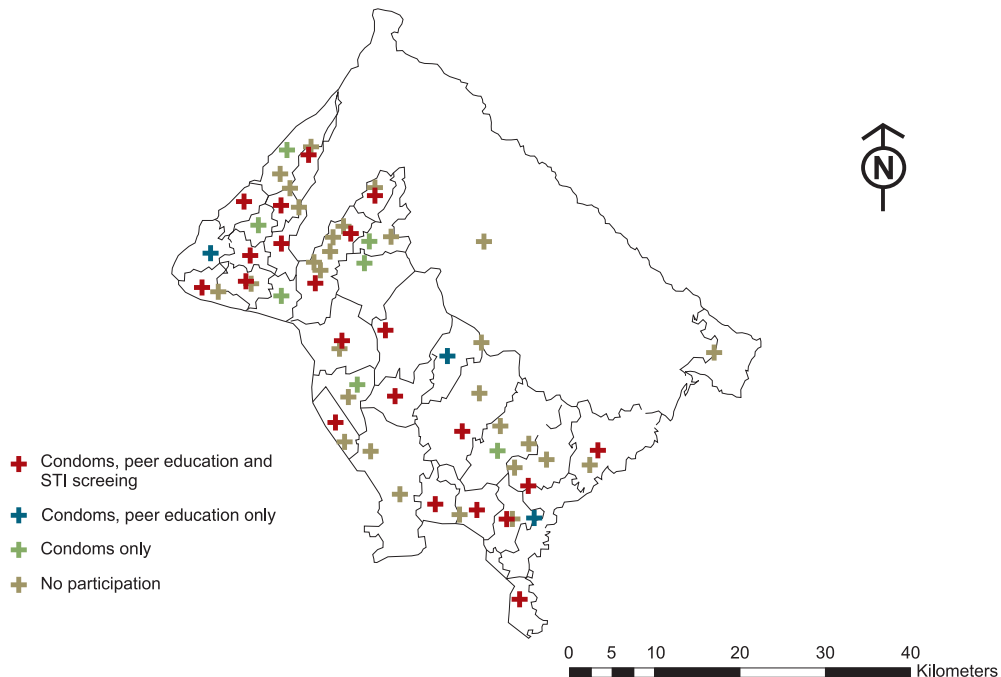
- Which outreach staff are achieving their weekly targets? What are some of the barriers faced by outreach staff who do not reach the weekly target?
- Are there any outreach staff with a very high number of contacts? What are the reasons for this success? Are some contact numbers too high, such that it is unlikely that outreach staff have quality interactions with the FSWs?
- If there is wide variation in contact numbers by outreach staff, what is the reason? Do geographical areas have to be reassigned? Are all outreach staff using the same definitions for counting outreach contacts?
- Are peer educators conducting a majority of the outreach contacts? Is this proportion increasing over time?
- Are there big declines in the number of contacts compared with previous weeks?

Indicator 1b.

Indicator 1b. Percentage of entertainment establishments (EEs) with active involvement in TIs

A similar set of graphs and displays can be developed for the coverage of EEs.

Figure 4. Participation of entertainment establishment owners in project interventions, City X, 2008



a. Assessing the level of support from EEs and their owners

Interventions for EE-based FSWs focus on outreach staff’s ability to map, contact and engage owners or FSWs at EEs. Managers can map the establishments and use colour-coded dots to indicate the degree of activity at a site. This can help programme staff to visualize areas where they need to put more focus and also see the progress they have made. For example, use purple dots for EEs where owners are supportive and proactive, and FSWs regularly access prevention services; use blue and green dots for EEs where owners are open to the intervention but not fully on board; use red dots for EEs where owners actively prevent their workers from accessing services and do not welcome outreach staff on the premises, etc.

Indicator 2.

Indicator 2. Number of condoms distributed

Indicators for condom distribution are a critical measure of the intervention’s ability to scale up access to commodities.

a. Assessing patterns in the level of condom distribution over time

The most appropriate way to present trend data is by using a line graph. When looking at the trend in the number of condoms distributed, it is easier to judge programme performance when the graph itself indicates the target level of condom distribution. One method for setting the target for condom use is to cover a specific high percentage of the estimated number of commercial sex acts that are expected from the population of FSWs. More sophisticated estimates of the number of sex acts may consider different types of FSWs who have different numbers of clients.

Figure 5. Number of condoms distributed, by mode of delivery, City X, 2008



b. Determining whether condoms are being distributed efficiently

Another important aspect of condom distribution is to present the number of condoms by mode of distribution.

Some follow-up questions that managers may have after looking at the data

- Is the proportion of condoms distributed by mode of distribution as expected? Is this appropriate for the stage of the programme, for the types of FSWs served, and for the level of outreach staff available?
- Is the distribution through outreach consistent with the number of contacts reported by outreach workers? If there is a discrepancy, how many condoms are being given to each FSW at each contact? Is this number reasonable, given how often outreach staff make contact with each FSW or how much FSWs depend on outreach to have access to quality condoms?
- Are condom distribution numbers unusually high? Is there a possibility that too many condoms are being given out at one time (i.e. condom dumping)? Are some FSWs acting as secondary distributors and providing condoms to FSW friends who may not be in contact with outreach workers?
- Do some outreach staff distribute a larger number of condoms? What are some of the reasons for these differences?

Box 5. Estimating the number of sex acts to set condom distribution targets

No. of sex acts = No. of FSWs in the area x mean number of clients per FSW per time period

When calculating this, it is important to remember:

- The area in which the number of FSWs is being estimated should match the geographical area in which condom distribution is being monitored.
- The time period of the calculation should be the same as the reporting period used.
Data for the mean number of clients per FSW is likely to come from a behavioural surveillance survey (BSS) and may need to be adjusted to match this time period.

Example: If the indicator available is the number of condoms distributed in the district **per quarter**, the formula for estimating the number of sex acts

= *No. of FSWs in the district x no. of clients per FSW per quarter*

If the BSS gives the number of clients per week then this data will have to be adjusted to:

No. of clients per week x 4.5 weeks per month x 3 months per quarter = No. of clients per FSW per quarter

Indicator 3.

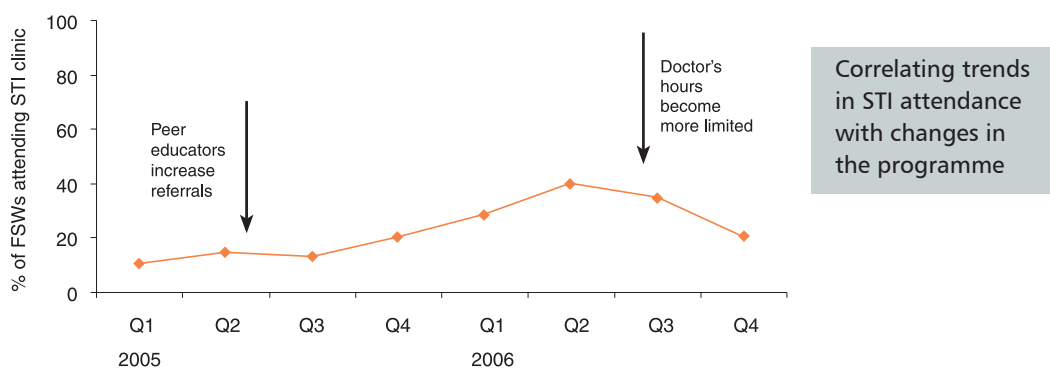
Indicator 3. Percentage of FSWs who came for STI screening in the past six months

Some community-centred projects have found it difficult to increase the uptake of STI services. Many FSWs may feel uncomfortable with the prospect of physical examinations or potential treatment (e.g. benzylpenicillin injections for syphilis).

a. Assessing whether promotion and referrals for STI services are improving the use of the STI clinic

It is important to examine the trends in uptake of STI services to see whether there is a potential to reduce the burden of curable STIs, and whether it can act as a measure of community trust for the STI service.

Figure 6. Percentage of FSWs attending STI clinic for regular check up by quarter, Site X, 2005–2006



b. Assessing the effect of STI services through reductions in the proportion of FSWs with genital ulcer disease (GUD)

In addition to overall trends, specific patterns of STIs can be monitored. Patients diagnosed with STI syndromes can be classified into two groups: those with ulcerative and non-ulcerative disease. Ulcerative STIs (syphilis, chancroid and infection with herpes simplex virus [HSV]-2) are very important cofactors for HIV transmission, but high levels of coverage through STI services can rapidly reduce the burden of ulcerative disease in the population. This means that a high proportion of ulcerative compared with non-ulcerative STIs such as pelvic inflammatory disease (PID) or vaginal discharge is also a sign of poor STI control, particularly in sex work settings. Reducing the ratio of ulcerative to non-ulcerative disease to less than 1 is a useful target.

Figure 7. Ratio of genital ulcer disease to non-ulcerative STI syndromes, India, 2004–2005



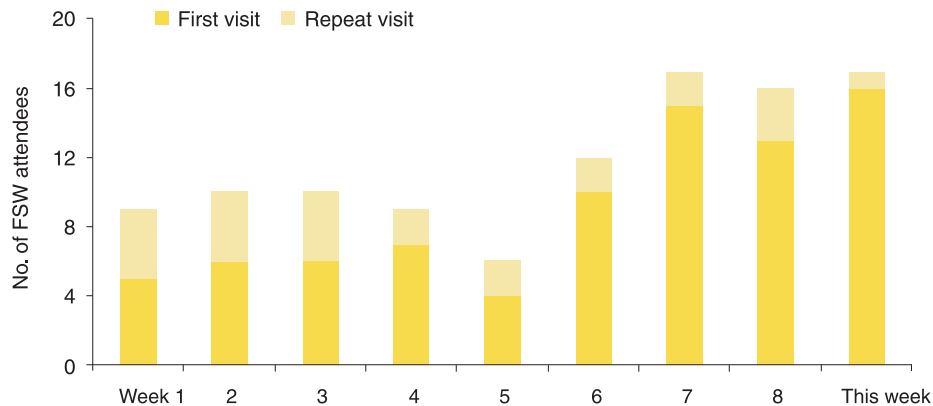
GUD genital ulcer disease; PID pelvic inflammatory disease; VD vaginal discharge
Dotted line indicates trend.

Source: Adapted from Steen R et al. Pursuing scale and quality in STI interventions with sex workers: initial results from Avahan AIDS India Initiative. *Sexually Transmitted Infections*, 2006, 82:381–385.

c. Reviewing the effectiveness of referrals by outreach staff

The percentage of FSWs who attend STI clinics can be further broken down to identify trends in new and repeat visits. In areas where mobility is high, the number of first-time visits may be expected to remain steady over time, indicating that outreach and referrals are reaching new populations as they enter the catchment area. High levels of repeat visits for regular STI screening can indicate that health-seeking messages have taken root among some FSWs. They also indicate that referrals or counselling provided by outreach workers and peer educators are having a positive effect.

Figure 8. Trends in first-time and repeat visits by FSWs to STI clinic, by week, City X, 2008



Some follow-up questions that managers may have after looking at the data

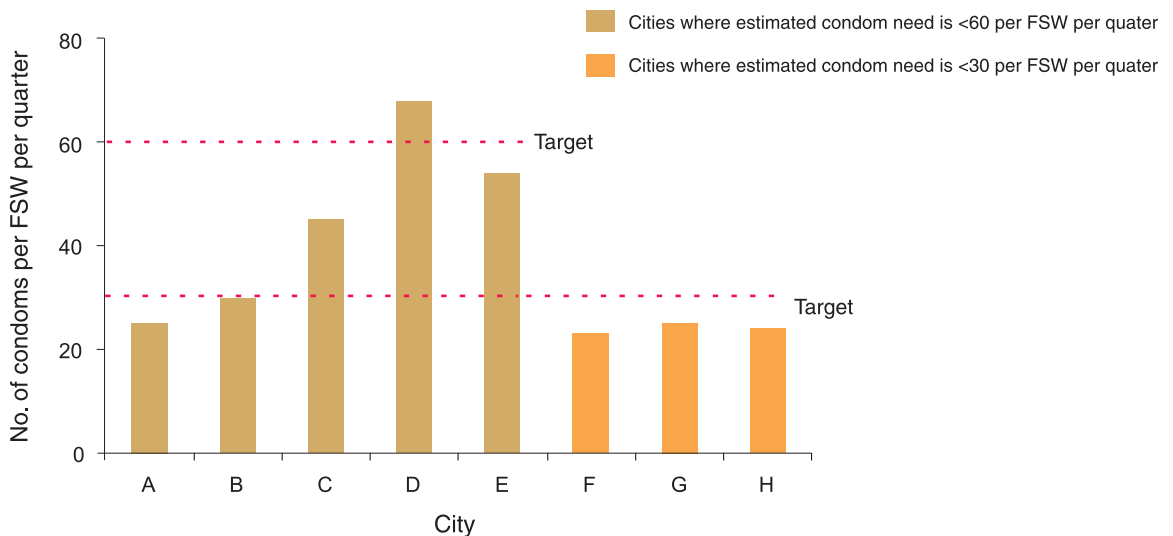
Is the volume at the STI clinic at target levels? Is there an increasing trend? If there has been an increase in clinic volume, what are the reasons? Is this due to an increase in symptomatic patients, or referrals from outreach, or other efforts to increase clinic attendance? Can these efforts be sustained?

- Is there a steady stream of new patients coming to the clinic? Does this reflect the pattern of turnover in the FSW community (i.e. FSWs who stop practising sex work and new women starting sex work)? Are outreach staff making efforts to refer new women to come for clinical services?
- Are there enough staff to handle the clinic volume? Are the larger numbers of FSWs attending the clinic resulting in longer waiting times?
- If the clinic volume continues to be very low, what could be the reasons? Are clinic hours at convenient times? Do the FSWs in the community trust the clinic staff? Is the clinic located at a place that is easy for FSWs to access? Are there other patients at the clinic who make the FSWs feel uncomfortable?

5.2.2 Using data to compare performance across sites

When designing graphs or figures to compare sites across a region or country, it is important to make fair comparisons. Data may first have to be made comparable either by looking at sites with similar numbers of FSWs or by dividing the number of condoms distributed by the estimated number of FSWs in the area. Once the data are comparable, it will be easier to identify high-performing sites that can be looked to for replicating best practices; or low-performing sites that need greater supervision and support.

Figure 9. Number of condoms distributed, across cities, by target, Country X, 2008



This example shows condom distribution across different cities. The data for each site are adjusted in two ways. First, rather than presenting an absolute number of condoms distributed in one quarter, the bars show the number of condoms distributed per FSW in the programme catchment area. Some cities are much larger than others and have much larger numbers of FSWs. Without making this kind of adjustment, cities with large numbers of FSWs may seem to perform much better than others, even if each FSW receives much fewer numbers of condoms on average.

There is a second adjustment in the graph. The cities being compared are divided into two groups, one group shown with brown bars, and one group shown with orange bars. These two groups of cities have very different types of FSW populations. The cities on the left have a predominance of brothel-based and street-based FSWs who have a high client volume on average, as compared with the cities on the right, which have almost all EE-based FSW populations, with a much lower client volume. These two groups of cities have different targets for condom distribution per FSW due to the difference in need. The difference in need was first identified by the site managers and confirmed by data from a recent BSS conducted in different cities.

Other issues to consider when comparing sites to identify high or low performers include: whether there is a difficult situation with the local authorities for provision of services; whether the resources are similar, e.g. comparable ratio of outreach staff to FSW population, or funding per beneficiary served, or whether different service delivery models have been used in different sites to address the different types of FSW populations.

For example, in some areas, STI services may only be available through fixed-site clinics in areas where the FSW population is very large, while mobile clinics or satellite clinics or referral to preferred providers are used in areas with smaller numbers of FSWs. Comparing sites or geographical areas may require sorting clinics by different service delivery models.

From another perspective, comparing service delivery performance across different sites may be a helpful way to evaluate whether some service delivery models perform better than others. For example, those STI clinics that are dedicated for FSW populations and may be affiliated with a DIC may be more trusted by FSWs and have better attendance than a referral provider site. Looking at the difference in service utilization on average among sites with

one model compared with another model will provide evidence as to whether this is true or not.

5.2.3 Using data to determine whether diagnosis, care and treatment needs are being met

In addition to prevention objectives, interventions for FSWs should address the diagnosis, care and treatment needs of the FSWs who benefit from the prevention services. This section provides examples of using data to assess whether these objectives are being met. While increased survival and reduced morbidity among FSWs who are infected with HIV is a key outcome, FSW interventions are not the primary service providers for diagnosis, care and treatment in most countries with concentrated epidemics. The more immediate contribution made by FSW interventions is to facilitate access to and utilization of services. The programme areas covered in this section include the following:

- 1) Whether intervention sites provide on-site or strong linkages to care, support and treatment services (Indicator 4), and
- 2) Utilization of HIV counselling and testing services (Indicator 5).

Indicator 4.

Indicator 4. Percentage of TI sites that offer on-site or referral linkages to care, support and treatment

This indicator measures whether the infrastructure and systems to provide on-site or referral linkages are in place. During the early phase of an intervention, milestones for setting up services should be established and tracked accordingly. At a national or regional level, the proportion of intervention sites that establish services can be measured. Another useful way to display these data is through dot maps where intervention sites are marked and those sites with care, support and treatment services are marked in different colours than those referring clients or which have not yet established either type of service. This kind of display allows managers to quickly identify geographical areas that may need more attention.

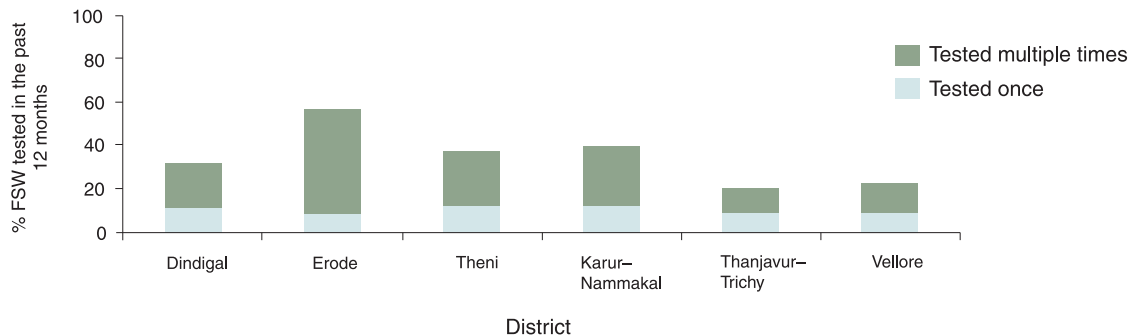
Indicator 5.

Indicator 5. Percentage of FSWs who received an HIV test in the past 12 months and who know their results

While on-site VCT services may not be a common component of FSW interventions in the region, promoting and facilitating access to testing services is an important objective of many FSW interventions. Survey data on testing provide a broader overview of how widespread testing behaviour has become among FSWs. Increasing trends may indicate greater awareness of and trust in testing and counselling services, or an increased demand for post-test services, particularly care, support and treatment.

Understanding the patterns of frequent testers is also useful. This can help in correcting the indicator for coverage of testing (e.g. removing people who are counted multiple times in the numerator). These data can also be compared across sites to see whether some implementers have had more success in encouraging some FSW groups to get themselves tested.

Figure 10. Percentage of FSWs tested once and multiple times for HIV in the past 12 months, Tamil Nadu, Avahan India AIDS Initiative, 2005



Source: Family Health International/Indian Council for Medical Research, *National interim summary report of integrated bio-behavioural surveys 2006–2007*. New Delhi, FHI/ICMR 2008.

Using other variables in the survey, testing data can be analysed to examine the characteristics of those who have opted for testing and counselling. This may help to assess whether people at higher risk are seeking testing and counselling, or whether there are some groups that are underrepresented and more effort should be put into encouraging these groups to get tested.

Finally, by combining the proportion of those who have tested and the estimated number of FSWs in the area, an estimate can be made of the

number of FSWs who should be entering into care, support and treatment services. Comparing the uptake of testing and counselling and the uptake of care, support and treatment services among FSWs is also important for determining whether all FSWs are being given the same opportunities for receiving appropriate post-test services.

5.2.4 Using data to determine whether programmes are making a difference

This section looks at how managers can use data on outcomes to determine whether programmes are likely to be having the desired effect, i.e. to change behaviours and ultimately reduce the rate of new infections. Outcome evaluation is a very broad and complex topic. The examples provided here highlight some of the uses of the recommended indicators for evaluating programme outcomes, but guidance on planning a systematic and thorough outcome evaluation can be found in other resources.^{7,8}

Most of the data needed for this type of outcome evaluation come from surveys among FSWs. This will limit the number of sites from which outcomes can be evaluated. At the same time, consistent trends or correlations between service delivery outputs and behavioural or biological outcomes are an important aspect of building evidence that programmes are having an effect. This section provides tips and examples for analysing the following types of outcome data:

- Level of knowledge of FSWs on methods of preventing transmission (Indicator 6)
- Condom use among FSWs (Indicator 7)
- Empowerment of FSWs to refuse clients who do not use condoms (Indicator 8)
- STI case rates among FSWs and males (Indicators 9a and 9b)
- HIV prevalence among FSWs (Indicator 10).

⁷ Rugg D, Peersman G, Carael M (eds). *Global advances in HIV/AIDS monitoring and evaluation. New directions for evaluation*. Hoboken, NJ, Wiley Periodicals, Inc, 2004.

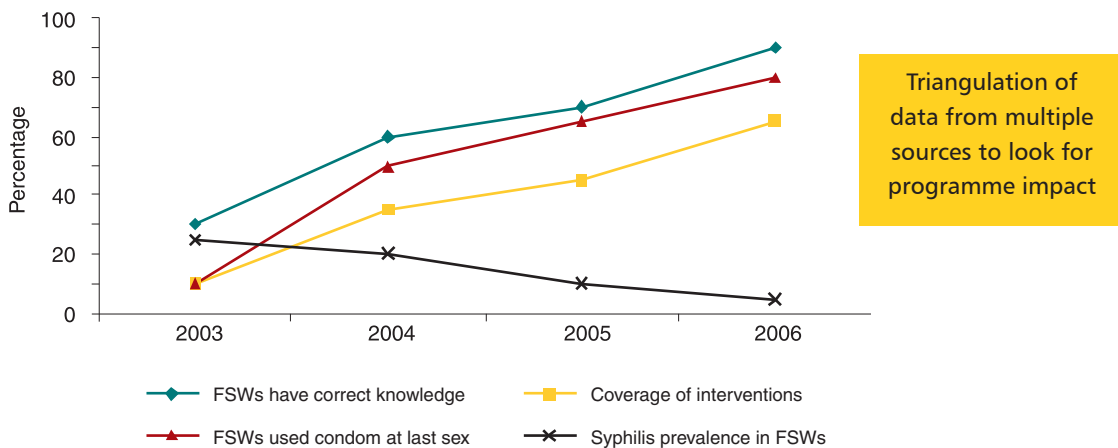
⁸ Family Health International. *Evaluating programs for HIV/AIDS prevention and care in developing countries: a handbook for program managers and decision makers*. Arlington, FHI, 2003.

Indicator 6.

Indicator 6. Percentage of FSWs who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission

These data are useful in the early stages of a TI programme and suggest whether knowledge and awareness about HIV is communicated effectively by outreach workers and peer educators. The often-rapid change in levels of knowledge also provides an early measure that the programme is reaching a larger community of FSWs. Once levels of knowledge and awareness are high (e.g. >80%), this indicator may not be as informative to the programme.

Figure 11. Impact of programme interventions, Country X, 2003–2006



Indicator 7.

Indicator 7. Percentage of FSWs reporting the use of a condom with the most recent client

Condom use is an outcome that is expected to increase over time if an FSW intervention is effective. Unlike biological measures, changes in behaviours are likely to be linked closely in time to the delivery of services, provided that the services have an effect on behaviours. Due to the tendency for self-reported behaviour (such as condom use) to be overreported in surveys, it is important to assess the reliability of these data before interpreting the results.

Methods for assessing overreporting bias include comparing data on changes in condom use to data on condom distribution during the same period, especially condoms distributed at solicitation points and sex venues. A high prevalence of curable STIs in the same population during the same time

period may help in checking the reliability of high levels of reported condom use.*

Indicator 8.

Indicator 8. Percentage of FSWs who feel able to refuse a client if a condom is not used

The percentage of FSWs who feel able to refuse clients who do not use condoms is expected to increase as (a) the sociopolitical environment begins to support condom use; (b) the FSW community is more cohesive and commits to 100% condom use; and (c) FSWs develop greater self-esteem and confidence to protect themselves.

Trends for this indicator can show whether the change coincides with the timing of passing regulations on 100% condom use policies, or the increased involvement of EEs in intervention programmes, the formation of community advocacy groups, or the selection of community leaders and spokespersons. Other signs of empowerment may be reflected in the number of FSWs who carry condoms with them or who participate in local advocacy events.

Indicator 9a.

Indicator 9a. Number of STI cases among FSWs

STI prevalence data can be presented by showing trends over time and presenting data by geographical areas or types of FSWs. Interpreting trends in the number of STI cases must consider whether the volume of FSWs coming to the clinic is increasing over time, and whether the reason for these visits is changing. For example, if higher numbers of FSWs are coming to the STI clinic to get treatment for symptoms, it would be important to know if this reflects treatment-seeking behaviour promoted by outreach workers or a real increase in the number of symptomatic STIs in the FSW population.

If a high proportion of FSWs are coming to the STI clinic for regular screening, then the number of STI cases diagnosed among this group of FSWs may give a more reliable estimate of whether STIs are increasing in the population. Declines in the proportion of cases of ulcerative STIs compared with all STIs also give some idea of whether treatment among FSWs is able to impact STI prevalence in the population.

*At the same time, it is important to consider the role of regular partners and other non-paying clients who may be the partners from whom FSWs are continually reinfected.

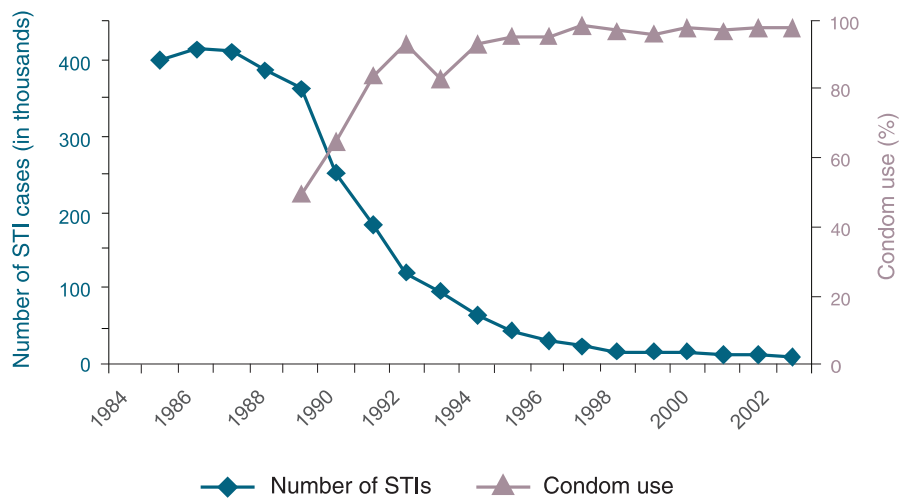
As mentioned earlier, one of the caveats of using clinic-based data is that these reflect only those people who come to the clinic; thus, they may not be generalizable to the entire FSW population.

Indicator 9b.

Indicator 9b. Number of new STI cases among males at STI clinics

The relationship shown between STI cases among males and increasing use of condoms has been one of the hallmarks of the highly successfully implemented 100% Condom Use Programme in Thailand.

Figure 12. Impact of implementation of the 100% Condom Use Programme on the incidence of STIs, Thailand, 1984–2002

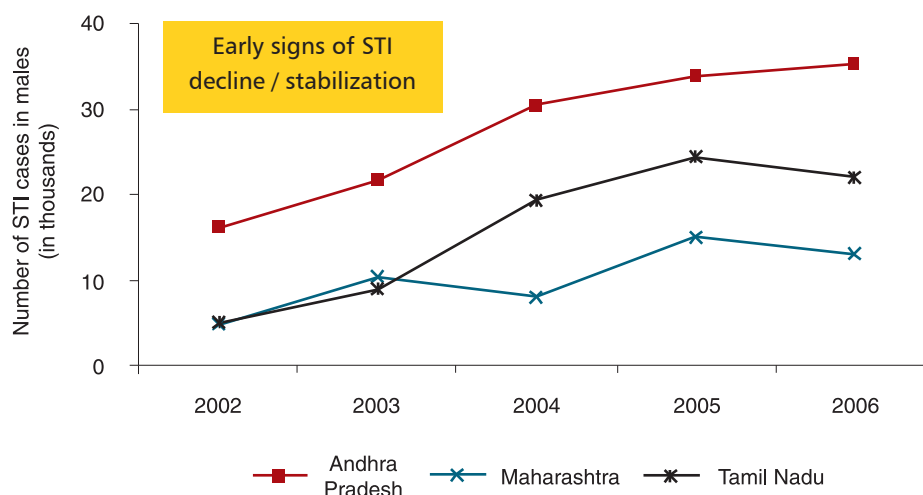


Source: Bureau of Epidemiology, Ministry of Public Health, Thailand

Low or rapidly falling STI rates among males help to confirm reported increases in condom use. Rates of STIs among males change more rapidly than HIV prevalence and thus provide important information for monitoring the effectiveness of prevention programmes. At the national or regional level, the volume of male patients with STI can easily be plotted over time and reviewed on a regular basis. When combining data from multiple sites, the same number of sites must be used over time.

Just as for trends in the number of STI cases among FSWs, the analysis of new STI cases among males at STI clinics must be interpreted carefully. Key issues include whether the increasing case numbers are a result of higher clinic volume due to promotion of services, or other issues not

Figure 13. Number of STI cases among males – selected states, India (2002–2006)



Source: National AIDS Control Organization India, computerized management information system

related to higher STI prevalence among men. Another consideration is whether the number of cases among FSWs or attendance at STI clinics follows a similar trend.

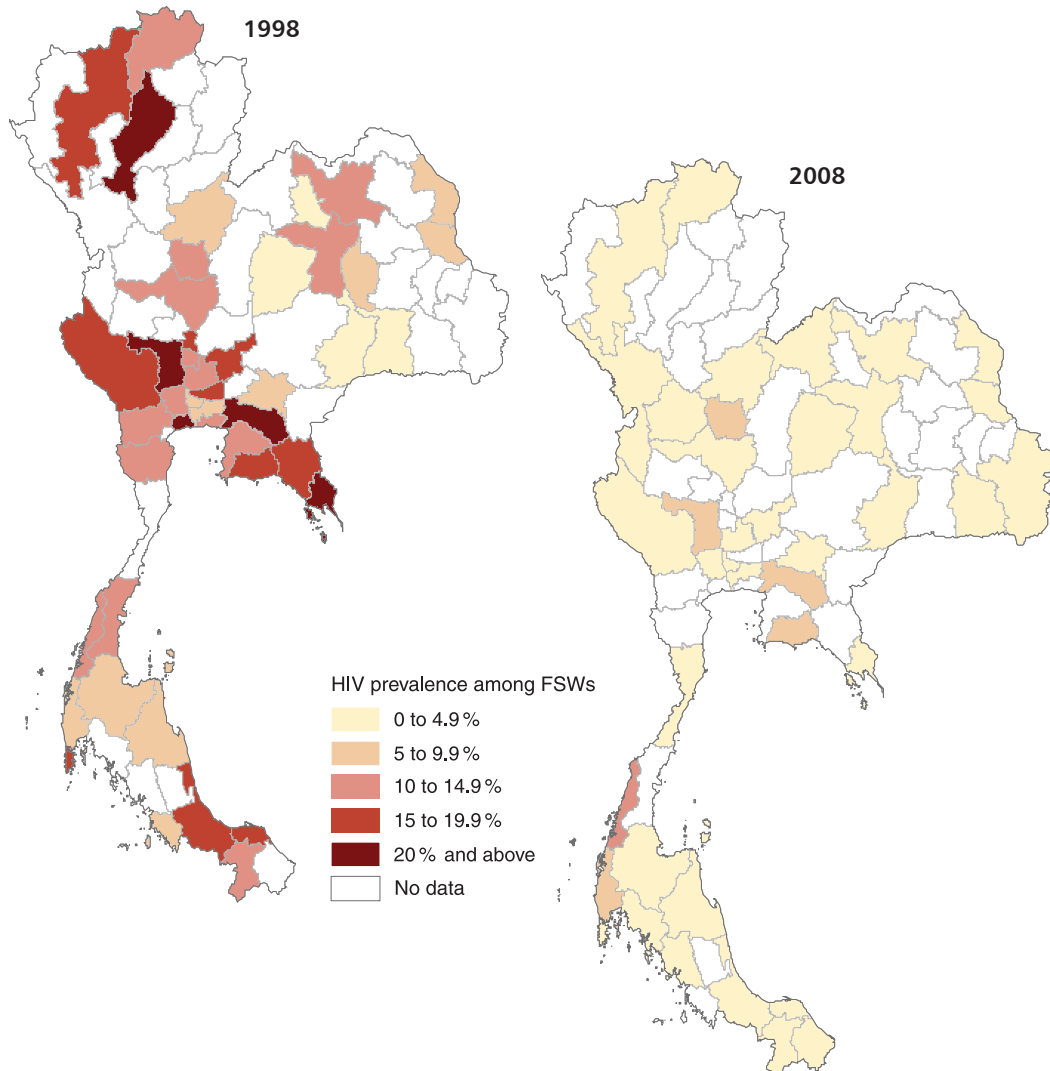
Indicator 10.

Indicator 10. HIV prevalence among FSWs

The most important question for prevention programmes is whether new HIV infections among FSWs are decreasing. HIV prevalence is an imperfect, but often the only feasible, method for trying to assess biological changes in the epidemic. However, this indicator **cannot** be used to assess the performance of specific interventions due to the complexity of transmission dynamics and the multiple factors that influence measures of prevalence, which are not under the control of service providers. When HIV prevalence trends are examined, they must be interpreted with other data to check if there is more evidence to support the trend observed (e.g. trends in STI prevalence, condom use, or change in policy) (see Box 4).

One of the most effective ways of displaying data on HIV prevalence is to use geographical maps to show the differences in prevalence across different areas and whether these are geographical patterns or isolated pockets of high prevalence.

Figure 14. HIV prevalence among FSWs by district, Thailand, 1998 and 2008



Source: Bureau of Epidemiology, Ministry of Public Health, Thailand

One of the challenges in interpreting these types of maps is that data from all areas may not be available. It is important to remember that the absence of data is not the same as the absence of an epidemic.

5.3 Generating reports for programme management purposes

M&E data are useful only if reviewed by managers and decision-makers, and are followed up by further investigation or action. Some of the most effective

programmes are those that institutionalize regular review of M&E data at different levels of management.

Table 3. Types of reviews and their purpose

Types of data reviews	Purpose
Weekly planning meetings of NGO staff (both outreach and clinical staff)	Staff review service uptake in the previous week and develop plans and staff-specific targets for doing outreach or referrals over the next week.
Quarterly reviews of implementers in a geographical area (e.g. district or provincial level)	Routine monitoring data are reviewed across sites to see whether targets being met are uniformly high across the area and to discuss commonly encountered problems, or best practices that can be shared.
Annual reports and reviews of the year's achievements	These reviews summarize the year's achievements, combining routine monitoring data with data collected on an annual basis (e.g. level of EE engagement, linkages to care and treatment, or data from periodic surveys as they become available). Ultimately, these reviews of programme progress may be translated into action plans and budgets for the following year.

5.3.1 Creating standard reports and data dashboards

Standard data-driven and graphical report formats can be valuable tools for **bringing structure** to these regular reviews and ensuring that management reviews are **evidence based**. Presenting M&E data in graphical formats can be very effective in describing a situation that may require some type of management intervention to improve the programme. Reports for managers should also incorporate a **clear interpretation** of the data so that people who are unfamiliar with the specific programme context come to the same conclusion about the issue. Designing a good report format depends on **understanding the audience** for whom it is intended.

Box 6. Creating a data dashboard

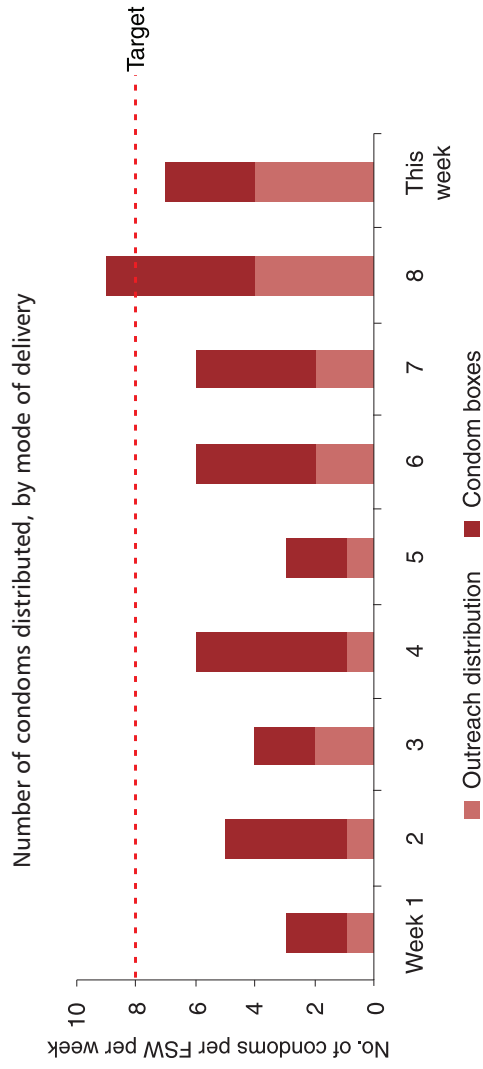
A **DATA DASHBOARD** is a term that has been used to describe a kind of standard report format designed to summarize the status of the critical areas of a project/programme in one page. Just as in the dashboard of a car, the things that are most important for the driver/manager to keep track of are displayed in a way that is easy for the driver/manager to grasp and put into action. Similar graphics and summaries of information can be made available in a data dashboard for FSW TI programmes. Dashboards can be created to serve different purposes, including the different types of data reviews described in the earlier section.

The following pages provide three examples of data dashboards that are useful for different types of review:

- Weekly review and activity planning for on-site managers;
- Quarterly review of performance for implementers; and
- Annual review and action planning/budget review meetings for programme managers.

Figure 15. Weekly data dashboard – Site XX, Week 7–13, July 2008

Overall FSW numbers 325 (2004)	Target group 250	Number of EEs registered 45	
		No. of Contacts (\geq Target=10)	Avg of prev 4 wks
Outreach staff	This week	12	10.5
Rosalie (P)		10	8.4
Marie (P)		13	12.7
Ava (P)		8	10.2
Valerie (O)		6	7.3
Sonya (O)		9	8.5
Peer avg		10.7	10.4
ORW avg		7.5	7.9
Staff avg		9.7	9.6



Vacant position	Vacant since
Outreach worker	26 June 2008
Counsellor	15 May 2008
Accountant	4 April 2008

Vacancies \geq 3 months

Weekly targets:

Outreach: $>$ 10 contacts per outreach staff

Condom distribution: $>$ 8.2 condoms per FSW

STI Clinic volume: $>$ 10 FSWs

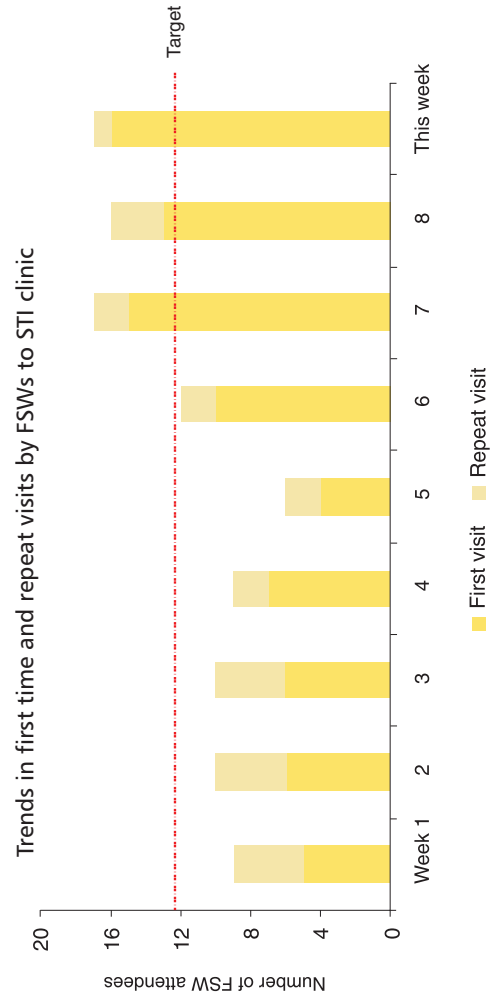
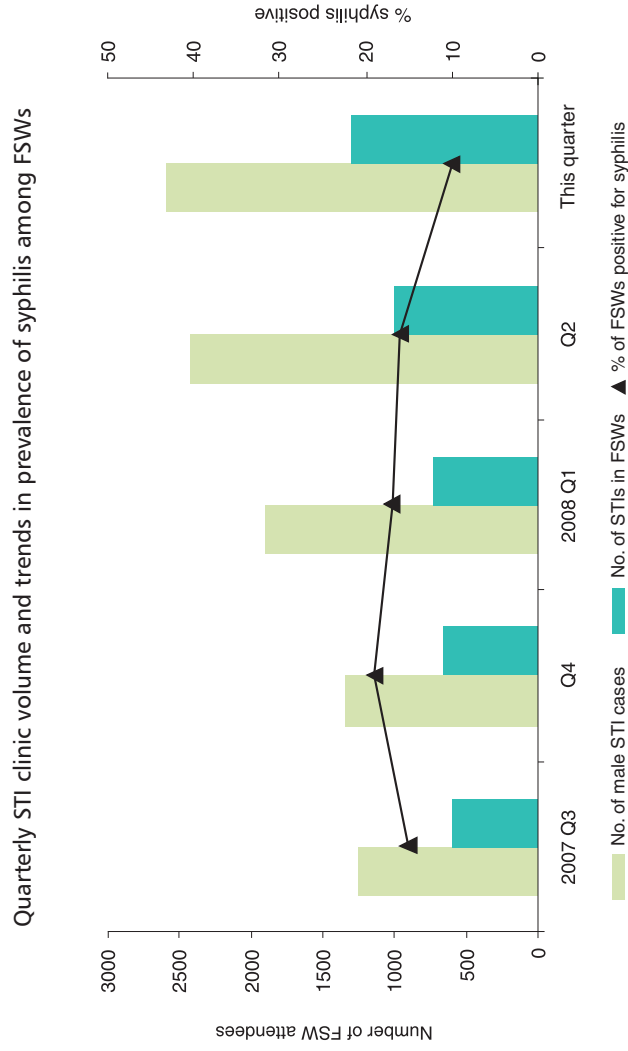


Figure 16. Quarterly data dashboard – Province XX, July–September 2008

Overall FSW numbers	2700	Total number of EEs	384	Number of FSWs in active EEs	2300
		% of FSWs contacted through outreach* (≥ Target=90%)			
Sites	This quarter	Avg of prev 3 quarters			
City A	72	65			
City B	56	59			
City C	65	60			
City D	20	15			
City E	84	90			
City F	30	25			
City G	35	37			
City H	28	40			
Province Avg	49	49			

* Denominator is number of FSWs in active EEs



Quarterly targets

Outreach: 90% of FSWs in active EEs

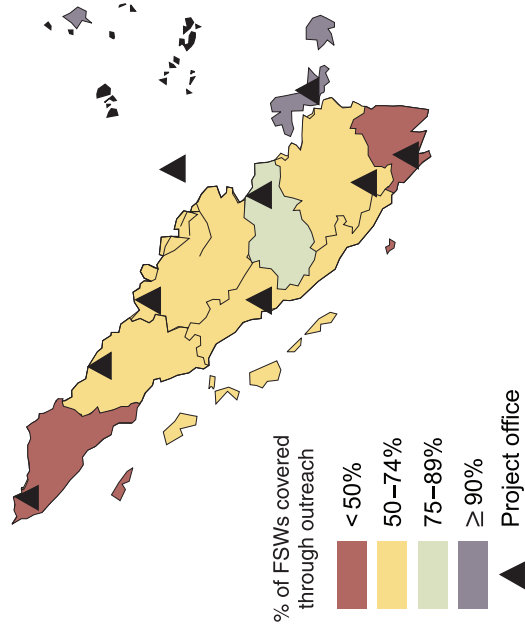
Condom distribution: >60 condoms per FSW (in cities A, B, C, D, E);

>30 condoms per FSW (in Cities F, G, H)

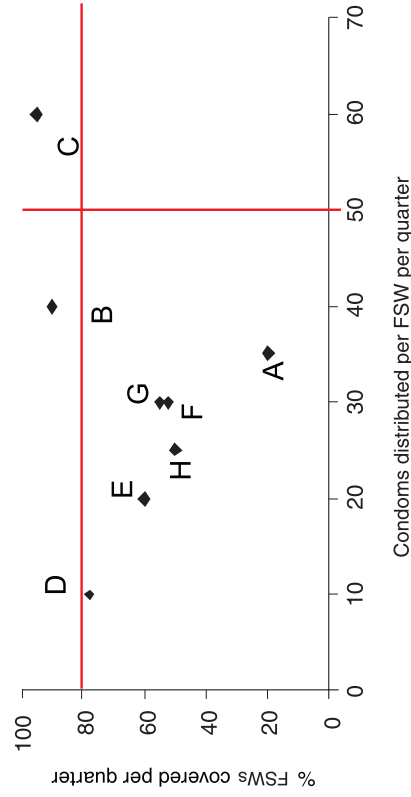
STI clinic: 1150 (50%) FSWs in active EEs

Figure 17. Annual summary report – Country XX, 2008

Total number of SWs mapped (year of mapping)	14 500 (2006)
(Target met)	
Percentage of FSWs in project areas	This year 11 000
No. of active EEs (% of total EEs mapped)	2007 9500
No. of FSW project offices	1256 (75%)
No. of FSW STI clinics	987 (60%)
No. of FSW sites offering VCT	9
No. of sites linking to care, support and treatment	16
	8
	14
	8
	6



Comparison of FSW coverage with number of condoms distributed, by City (A–H)



2008 Targets
 Outreach: 80% of FSWs in active EEs
 Condom distribution: >50 condoms per FSW per month
 STI clinic: 1150 (50%) of FSWs in active EEs

Summary of Annual Policy review:



Annexes





Annex 1: Designing a standardized M&E system

It is better to have a reliable, well-defined basic dataset rather than a sophisticated dataset of unknown quality or standardization. A reliable M&E system which produces data that can be compared across sites must be managed by a central body (e.g. National AIDS Control Programme) and starts with clear guidance to the individual reporting units about what monitoring data should be collected and when, and how to report and use these. Maintaining a good system requires regular feedback on the data that are reported.

Template of an M&E plan

An M&E plan that is included in the guidelines of an FSW TI programme has the following sections:

A. List of core indicators (often displayed in a table that includes information about the key subgroups, frequency of reporting and source of data)

Example

Indicator	Subgroups	Frequency	Source of data
Percentage of FSWs who report condom use at last sex with client	By type of FSW	Annually	BSS
Percentage of FSWs contacted by outreach coverage	By type of FSW	Every 6 months	Outreach register

B. List of **data collection formats** used at each facility/intervention site for recording routine monitoring data with a brief description of each

Example

STI clinic register

DIC register

Outreach register

Condom box stock sheet

—*STI clinic register*

This register records the patients who attend the clinic on a daily basis.

The sheet is filled in by the intake nurse and summarizes the information recorded on the individual patient medical record.

—*DIC register*

This register records the persons who come to the DIC for any service.

C. **List of reporting forms**, i.e. those forms used to compile the information from individual registers. This is the format in which data are sent to higher levels of management on a periodic basis. Each form should be described in brief.

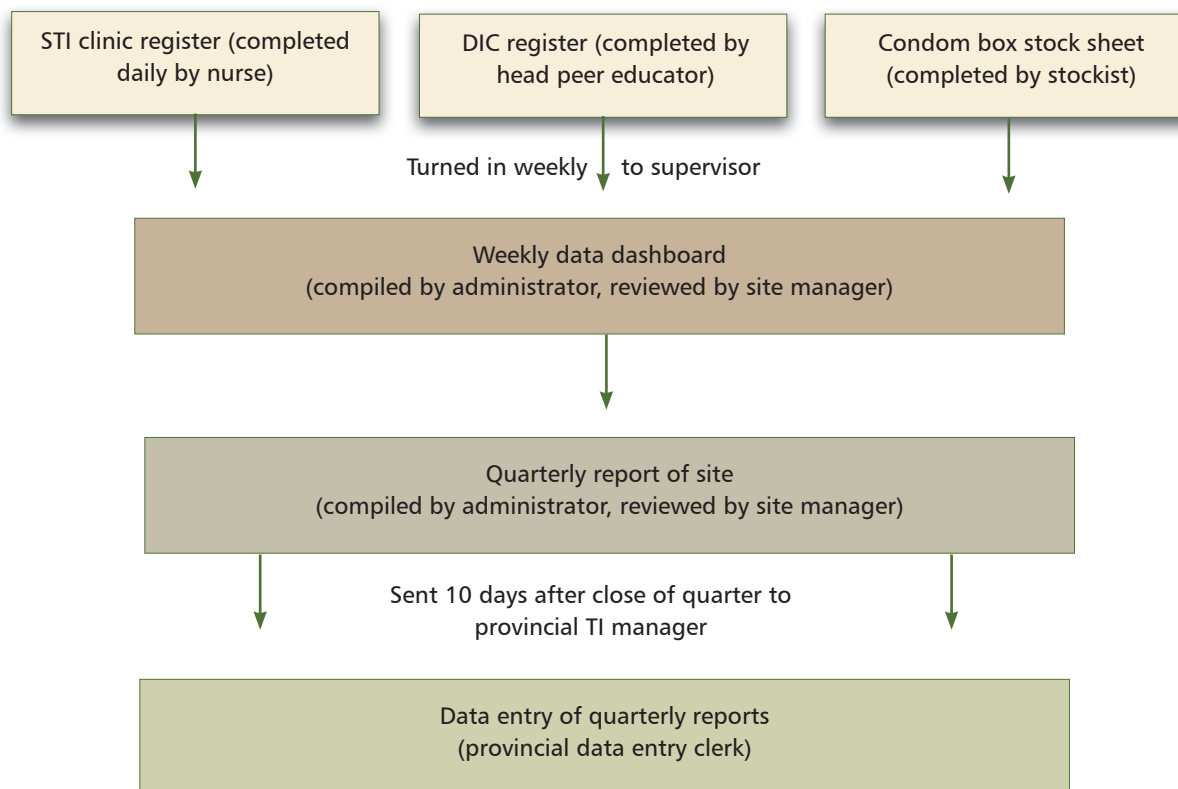
Example

Weekly data dashboard format – supervisors compile data from daily registers into a weekly summary, used for compiling the quarterly report and for weekly staff meetings and activity planning.

Quarterly reporting format – this form summarizes the key indicators reported to the provincial headquarters.

D. **Data flow diagrams** which show the flow of information from the initial point of data collection to the final transmission of reports to the national level. Boxes can be used to show each step in the process (data collection, compilation, data entry, transmission) and should include all the formats described in the previous two sections.

E. A description of the **basic rules of data storage and archiving**, including issues of confidentiality and data security.



F. **A copy of each data collection format** and an accompanying instruction sheet on how to complete each section, including definitions (e.g. what is considered a contact) and codes that should be used. (See Annex 5 for examples of instruction sheets.)

G. **A copy of each reporting format** and accompanying instructions with the definition or calculation for each item of information required.

Annex 2: Detailed definitions of recommended indicators

Indicator 1a.

Indicator 1a	Frequency	In other guidelines	Source
Percentage of FSWs contacted through outreach	Quarterly	UNGASS	Clinic register/ activity log book

Why is it important?

Coverage is a critical aspect of the effectiveness of a TI programme. Without reaching a majority of FSWs in the community, condom norms cannot be established, FSWs are less empowered to negotiate condom use with clients, and condoms are not easily accessible during sex with clients.

This indicator provides a measure of coverage relevant for programmes that use outreach by peer educators or other types of outreach workers to engage FSWs in the programme. In addition to being a critical mode for distributing condoms, outreach serves as an entry point for providing BCC, referring FSWs to clinical services and generally maintaining contact with FSWs to understand their concerns and priorities.

How is it defined?

Numerator: the number of FSWs who have been contacted by an outreach worker or peer educator during the quarter

Denominator: the number of FSWs mapped in the catchment area of the intervention site

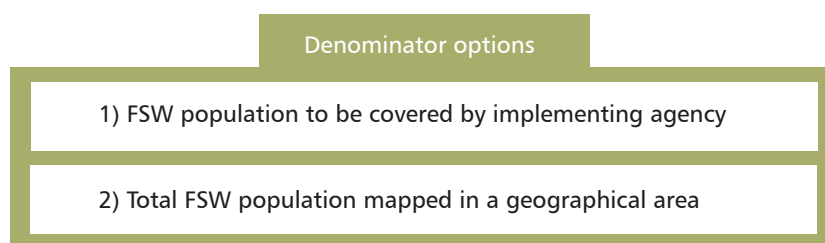
Although an FSW may use several types of services offered by the intervention, using outreach contact to define coverage helps to simplify the counting process. The activities or services provided through outreach may vary among different country programmes; however, most outreach encounters for FSWs should result in the distribution of condoms. More stringent, standardized definitions of what should count as a meaningful

outreach contact may be specified in the national guidelines and monitoring framework developed by each country.

A reliable denominator is the key to a coverage indicator that is informative about programme performance. The definition of this indicator assumes that each intervention site is assigned a mutually exclusive geographical area for coverage and mapping has been conducted to determine the approximate number of FSWs in the catchment area. The size of the FSW population in the assigned catchment area of the site should be updated annually due to the highly mobile and evolving nature of sex work.

In some instances, a site may not be responsible for providing services to all the FSWs in the geographical area. If this is the case, coverage should be calculated two ways:

- 1) to measure the performance of the implementing agency, the denominator used should be the number of people they are responsible for providing services to;
- 2) to measure the national programme's ability to scale up TIs and saturate the FSW population, the denominator used should be the total number of FSWs estimated to be in an area (i.e. through the mapping exercise).



How are the data collected?

The number of contacts should be available from activity logs maintained by the outreach workers and peer educators. Special formats may be needed to help peer educators with low literacy.

Compiling outreach contact records to count individuals who have been reached over a three-month period can be difficult. This kind of tracking requires special formats that display which contacts were made with which individuals over a period of time and can distinguish between new and repeated contacts. It is easier to track contacts to individuals when a peer educator or outreach staff person is assigned to cover the same hotspot(s)

over time and is expected to make contact with the same group of FSWs. When outreach is organized in this manner, local managers can more easily track the number of contacts or individuals reached by an outreach worker/peer educator and assess the relative productivity of different outreach staff relative to each other and to historical performance. See Annex 5 for examples of data collection forms.

Denominator data for the number of FSWs in a geographical area should be collected through mapping exercises that identify hotspots where FSWs are known to gather. Estimates of size can be made through a combination of observation and head counting, as well as discussion with FSW key informants, and other local key informants familiar with the area and the population (e.g. rickshaw drivers, local shop owners, or madams/pimps, etc.)

Measuring the indicator for different subgroups

This indicator can be measured separately for different types of sex workers and sex workers who have been practising sex work for less than one year, as it may be more difficult to reach some types of FSWs or to engage younger FSWs who may be more in need of services.



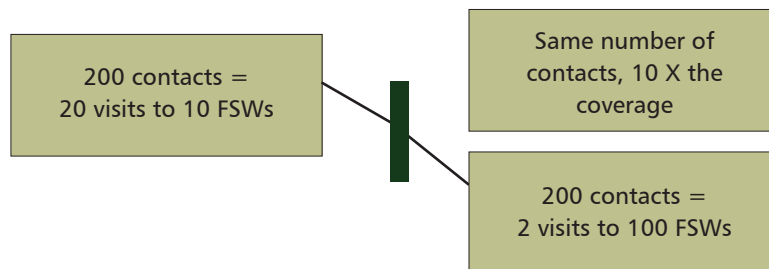
Field tips

Counting contacts vs counting individuals

New programmes may have difficulty in tracking contacts made with the same individuals over a period of three months. This type of tracking requires a system of unique identifiers (e.g. ID numbers) assigned to FSWs receiving services, or an outreach system in which each outreach worker is assigned a specific group of FSWs to contact on a regular basis.

If the intervention does not have a method to track individuals, the number of contacts should be used instead. Counting contacts will overestimate the number of individuals reached, because it includes multiple contacts with the same FSW. For this reason, it is not fair to compare coverage of sites that track individuals with coverage of sites that count contacts.

Actual coverage of individuals can be checked against data from periodic probability-based surveys that are conducted in some sites. Questions can be added to the survey instrument to see whether the respondent has been contacted by an outreach worker or peer educator in the past year and in the past three months.



Measuring outreach coverage over the past year is consistent with the guidance from the United Nations General Assembly Special Session (UNGASS) and US President’s Emergency Fund for AIDS Relief (PEPFAR), which is used for making international comparisons. However, an effective TI must make regular, sustained contact with the FSWs in their catchment area, making a quarterly coverage target more useful for programme management purposes.

Indicator 1b.

Indicator 1b	Frequency	In other guidelines	Source
Percentage of EEs with active involvement in TIs	Annually		EE site registration data

Why is it important?

Coverage is a critical aspect of the effectiveness of an FSW intervention. Without reaching a majority of FSWs in the community, condom norms cannot be established, FSWs are less empowered to negotiate condom use with clients, and condoms are unavailable at sex venues.

This indicator provides a measure of coverage which is relevant for programmes that serve FSWs who work in EEs. These types of interventions are only effective if the owners of the establishments are engaged in and supportive of HIV prevention efforts. A critical aspect of their engagement is whether they allow condoms to be promoted and support FSWs who refuse to have sex with clients if condoms are not used.

How is it defined?

Numerator: the number of EEs where owners agree to actively participate in the FSW intervention (more specific criteria for active participation are described below)

Denominator: the total number of EEs that have been mapped in the area (i.e. those establishments where some of the women who work there also sell sex to clients they meet at the establishments)

The unit of coverage is defined in terms of EEs, which may include different types of sites: brothels, massage parlours, karaoke bars, hotels or guest houses, etc.

The definition of active participation by EEs should be consistent with the national guidelines. For example, in some areas, the minimum criteria for participation might require:

- a) the owner to attend an education session about the intervention programme and agree to encourage EE workers to apply the “no condom, no sex” principle
- b) intervention outreach staff to have access to the women working in the EE to provide condoms or information
- c) women working in the establishment to be allowed to attend education sessions, access the STI clinic, or participate in other events organized by the intervention
- d) condoms and information, education and communication (IEC)/BCC materials to be available on-site to clients and women working at the establishment.

How are the data collected?

Active participation of establishments can be assessed at a regular time on an annual basis by going to each EE in the area. Establishments are counted as active if they meet the minimum criteria at the time of the assessment.

The denominator for this indicator is derived from a list of EEs that have been mapped in the area. This mapping exercise should be updated annually.

In areas where large numbers of EEs are located, it may be necessary to prioritize establishments according to their potential impact. For example, establishments with more than 10 working women may be a higher priority than those with fewer women. The coverage indicator can then be calculated for both groups separately, and also for overall coverage.

Indicator 2.

Indicator 2	Frequency	In other guidelines	Source
Number of condoms distributed	Quarterly		Condom distribution records

Why is it important?

A primary objective of FSW interventions is to reduce the number of risky sex acts by increasing condom use. This indicator is used to arrive at the approximate number of condoms accessible to people who may be engaging in commercial sex. By comparing the number of condoms distributed to the estimated number of commercial sex acts, it is possible to determine whether sufficient numbers of condoms were made available to people engaging in commercial sex. While the condoms distributed are not necessarily used, it provides an estimate of the proportion of commercial acts that were made safer through condom use.

How is it defined?

Number of condoms distributed to persons engaged in commercial sex acts

Condoms counted for this indicator include those distributed through outreach (to individuals or establishments), at condom depots/boxes, through vending machines, or at retail outlets promoted through social marketing programmes.

Definitions of free distribution

Mode of distribution	Definition of distribution
Outreach activities	Any condom given to an FSW for use. Condoms used for demonstration of correct use are not counted.
Condom depots	Calculated as the number of condoms removed from a self-service condom box or basket made available at DICs or sex solicitation/venue points. Numbers can also be based on quantities used to refill actual condom depots.
Distribution should NOT be counted based on the supply given to NGOs or implementing agencies. These data should only be used to corroborate reported numbers distributed by outreach and condom depots.	

Definitions of distribution through social marketing

Mode of distribution	Definition of distribution
Outreach activities	Any condom sold as part of outreach activities
Condom vending machines	Calculated as the number of condoms removed from a vending machine made available at DICs or sex solicitation/venue points. Numbers can also be based on quantities used to refill actual vending machines.
Social marketing retail outlets	Number of condoms restocked at participating retail outlets. These numbers need not be based on actual sales.

How are the data collected?

Data for this indicator will come from routine programme records.

Distribution activity	Data collection format used ^{††}
Through outreach	Daily activity registers used by outreach staff should include the number of condoms given or sold to contacts.
Through self-service units	Stock reports used for filling condom depots or vending machines should note the date and the amount refilled.
Through retail outlets	Sales reports should show date, location of the outlet and numbers sold.

^{††}See Annex 5 for sample data collection formats.

To simplify the tabulation process, a list of reporting units should be made and categorized by location (i.e. geographical area and/or type of reporting unit). A spreadsheet or database with the following fields may be helpful in organizing the data.

Month/year	Reporting unit (coded)	Location (may need several fields to enable analysis at different levels)	No. of condoms distributed free	No. of condoms distributed by social marketing

Data from outreach activities may be best compiled separately from other sources of data. This is because the activity registers used to report outreach activities have other important monitoring data which may be more efficient to sum up and enter into the same datasheet (see Annex 5 for sample data collection formats). Spreadsheets or databases can be designed to link data from multiple data collection formats based on reporting unit codes and/or geographical areas.



Field tips

Free distribution and social marketing sales can be captured because these activities are managed under the umbrella of FSW interventions. It is not usually possible to capture the number of condoms that are distributed through regular, commercial outlets. These data are not easily available and may include condoms used for family planning purposes, and not just those used for disease prevention.

In some countries, free condom distribution may be managed by a unit other than the National HIV/AIDS Control Programme, e.g. the office responsible for Reproductive Health and Family Planning. As long as the free condoms counted as part of this indicator are distributed to implementing agencies working on FSW interventions, it does not matter which group is managing the distribution. Making use of the definitions and methods of data collection described above will help the indicator to be more meaningful with respect to the performance of the FSW intervention.

Indicator 3.

Indicator 3	Frequency	In other guidelines	Source
Percentage of FSWs who came for STI screening in the past six months	Quarterly		STI clinic register

Why is it important?

Regular screening visits are a cornerstone of the STI control component of FSW interventions. This is due to the high levels of reinfection among FSWs and the frequently asymptomatic presentation of STIs among women. Measuring the proportion of FSWs who follow the recommended frequency of STI visits indicates the degree to which health- and treatment-seeking behaviour has changed, and the proportion of FSWs who will receive syndromic management or presumptive treatment, depending on the services offered by the TI programme.

How is it defined?

Numerator: Number of FSWs who attend the STI clinic and may receive routine examinations, laboratory-based screening and/or presumptive treatment) during the quarter

Denominator: Number of FSWs mapped in the catchment area

Clinic attendance for follow up of treatment for a previously diagnosed episode of STI is not counted in the numerator. FSWs who receive general clinical services (e.g. treatment for anaemia, headache, general HIV/AIDS care, counselling and testing, or other non-reproductive health illnesses) AND who are not examined or screened for STI should not be counted. Ideally, individuals should be counted only once during the reporting period.

This indicator should be adjusted to match the frequency of coming for STI screening which is recommended by the national guidelines for STI management among FSW populations.

How are the data collected?

Data should be recorded on standardized clinic registers that contain basic information about persons coming for STI-related issues. The register format used should allow easy tabulation by clinic over a reporting period. An example of an STI register is provided in Annex 5.

Measuring the indicator for different subgroups

This indicator can be measured separately for different types of FSWs as it may be more difficult for EE-based or brothel-based FSWs to access STI clinic services. Engaging FSWs who have been practising sex work for less than one year in improving health-seeking behaviour is an important opportunity for interventions to promote safe sex before an FSW acquires HIV.

Indicator 4.

Indicator 4	Frequency	In other guidelines	Source
Percentage of TI sites that offer on-site or referral linkages to care, support and treatment	Annually		Outreach activity register, clinic register

Why is it important?

In addition to HIV testing, providing on-site services or strong referral linkages to care, support and treatment services is important for serving the larger needs of a population vulnerable to HIV infection. This indicator measures the scope of FSW interventions to provide a bridge between prevention and other HIV services.

How is it defined?

Numerator: The number of FSW intervention sites that provide clinical and/or psychosocial services for HIV-positive persons either on-site or have a formal mechanism for referral to these services

Denominator: The total number of FSW intervention sites

A site is defined as the unit used for reporting purposes (e.g. by NGO, by contract, by district, etc.).

This indicator may be calculated separately for sites that offer on-site care, support and treatment, and those that offer referral mechanisms. The national programme may define several categories depending on the most common mode of delivering services for care, support and treatment.

Example

- Category 1: Complete referral services for counselling and testing; basic AIDS care, diagnosis and treatment of opportunistic infections (OIs), provision of antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV, psychosocial support
- Category 2: On-site counselling and testing; basic AIDS care and psychosocial support; referral for OI diagnosis and treatment, and ART/PMTCT
- Category 3: Complete range of services for care, support and treatment on-site.

Referral linkages should be defined in such a way that they are counted only if the referral meets a minimum standard of effectiveness. Short of assessing whether clients are able to easily access the referral services, referral systems must include:

- a) current lists of sites offering various care, support and treatment services that are friendly and accessible to FSW populations
- b) specific contact information of staff who work at the sites to which FSWs are being referred
- c) a system for regular communication between the FSW intervention site and the referral site where follow up is conducted on persons who were referred for services.

How are the data collected?

An inventory of services provided at each site can be submitted on an annual basis as part of annual reports. National programmes can catalogue this information using a register for all NGOs providing FSW interventions.

See Annex 5 for an example of this format.

Indicator 5.	Indicator 5	Frequency	In other guidelines	Source
	Percentage of FSWs who received an HIV test in the past 12 months and who know their results	Every 2 years	UNGASS, UA	FSW survey

Why is it important?

As a group particularly vulnerable to HIV, counselling and testing services for FSWs are critical for identifying those who are positive in order to link them early to care, support and treatment. When follow-up services are readily available for FSWs, it is important to encourage FSWs to be tested on a regular basis. Currently, there is a large gap in meeting the need for care, support and treatment among marginalized populations infected with HIV.

Linkages to care, support and treatment also demonstrate that this prevention intervention provides services that address the larger concerns of the FSW community. This can contribute to the overall buy-in by and relevance of the intervention for the FSW community, strengthening the prevention aspects of the programme.

How is it defined?

Numerator: Number of FSWs who have been tested at least once in the past 12 months

Denominator: Number of FSWs who participate in the survey

Only current FSWs should be included in the numerator and denominator. Current FSWs are defined as those who have had a client in the past month.

In answering this question, it is important to ask a follow-up question as to whether the respondent received the result of that test. This ensures that the testing was voluntary and not part of an anonymous unlinked survey as is done for surveillance purposes. If FSWs do not receive their test results,

they would also not be referred for follow-up services, particularly if they are HIV-positive.

How are the data collected?

These data are ideally collected through probability-based samples of FSWs. See Annex 3 for more information on conducting probability-based surveys.



Field tips

In areas where HIV prevalence among FSWs is high, it is important to exclude from the denominator people who found out they were positive more than a year ago. Once FSWs know they are positive, they do not have a reason to go for testing in subsequent years. As uptake of testing services scales up and large numbers of FSWs find out they are positive, removing these people from the denominator may substantially change the percentage calculated.

Example

Suppose the total number of FSWs in an area is 200, and in the first year of the programme, 100 FSWs are tested. If 25% of those tested were positive, this would mean 25 people ($100 \times 0.25 = 25$) know they are positive. These people would not be expected to test in the following year because they already know they are positive. So in Year 2, the denominator of people that you would expect to get tested should be $200 - 25 = 175$. If another 100 people are tested in the following year, the percentage tested should be calculated as $100 / (200 - 25) = 57\%$.

In the example given above, this kind of adjustment could change the indicator by a large amount. The need for this type of adjustment is greater when the HIV prevalence among the FSW population is very high and the proportion of people getting tested is also relatively high.

Indicator 6.

Indicator 6	Frequency	In other guidelines	Source
Percentage of FSWs who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Every 2 years	UNGASS	FSW survey

Why is it important?

According to the stages of change theory, knowledge and awareness of condoms as a means of preventing HIV is the first step in behaviour change. This indicator measures knowledge as a necessary but insufficient prerequisite to adopting condom use consistently and/or refusing to have sex with clients without condoms.

How is it defined?

Numerator: The number of FSWs answering five standard questions on knowledge correctly

Denominator: The total number of FSWs who participate in the survey

According to the UNGASS and US Government's definition, FSWs must answer the following five questions correctly to be categorized as having correct knowledge:

1. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?
2. Can a person reduce the risk of getting HIV by using a condom every time they have sex?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites?
5. Can a person get HIV by sharing food with someone who is infected?

UNGASS guidance suggests that questions 4 and 5 can be substituted by other misconceptions about transmission that are more appropriate for the given local context. Some examples include: "Can a person get HIV by hugging or shaking hands with a person who is infected?" or "Can a person get HIV through supernatural means?"

How are the data collected?

These data are ideally collected through probability-based surveys of FSWs. See Annex 3 for more information about conducting FSW surveys.

Indicator 7.

Indicator 7	Frequency	In other guidelines	Source
Percentage of FSWs reporting the use of a condom with their most recent client	Every 2 years [¶]	UNGASS, MDG	FSW survey

[¶] More frequently through mini-surveys linked to interventions

Why is it important?

Condom use during all commercial sex acts is a key objective of FSW interventions. This indicator measures how condom use behaviour changes, as reported by FSWs. If the right things are being done on a large enough scale, condom use behaviour should change over time.

An intervention may increase condom use in many ways: encouraging clients to use condoms, making condoms more accessible, supporting the willingness and ability of an FSW to negotiate condom use, and/or advocating for a social-political environment that supports condom use.

How is it defined?

When these data come from a survey of FSWs, the definition is as follows:

Numerator: the number of participants who answer “yes”, to the question, “Was a condom used the last time you had sex with a client?”

Denominator: the total number of FSW respondents

Only current FSWs should be counted in both the numerator and the denominator. Current FSWs should be defined as those who have had a client in the past month.

How are the data collected?

The recommended way to collect these data is through probability-based surveys of FSWs. This question can also be asked through samples of FSWs who visit a DIC or a clinical site.

Measuring the indicator for different subgroups

An enabling environment and exposure to the intervention may vary considerably by type of FSW and how new to sex work a respondent is. With survey data, it is relatively easy to calculate this indicator separately for different subgroups such as typology and length of time in sex work.



Field tips

Reducing social desirability bias

This indicator can only be collected through self-reporting by FSWs or clients. Sometimes, FSWs may report higher levels of condom use than what they actually use to avoid being judged adversely. This type of overreporting is a form of social desirability bias. Bias may be reduced if the survey is conducted by an independent group not associated with the intervention. Other innovative methods, such as the “polling booth approach” or use of audio-assisted self-interviewing, provide means for FSWs to answer questions without having to be interviewed directly, even if a respondent cannot read.

Overreporting can be assessed by including multiple questions about condom use (e.g. consistent condom use, condom use with regular partners, not being able to use a condom when wanting to, etc.) and looking at the plausibility of the responses. For example, “consistent condom use” is expected to have similar trends (but at a lower level) to “condom use with last client”. Thus, high condom use among regular partners may indicate overreporting, because FSW interventions are unlikely to affect this behaviour.

Annex 3 contains more specific details on how to conduct probability-based surveys, how to improve the quality of data from facility-based surveys, and examples of questions that can be used to assess the reliability of data on condom use during sex with last client.

Indicator 8.

Indicator 8	Frequency	In other guidelines	Source
Percentage of FSWs who report being able to refuse a client if a condom is not used	Every 2 years		FSW survey

Why is it important?

This indicator assesses the empowerment of FSWs to control their working environment and insist that clients use condoms. This indicator measures the TI programme’s ability to create an enabling environment to support FSWs in protecting themselves. Changes in feelings of empowerment may be related to increasing self-efficacy of the FSW, solidarity among FSWs to adopt

condom use as a norm, and the power structures, such as establishment owners and madams/pimps who support condom use.

How is it defined?

When these data come from a survey sample of FSWs believed to be representative of the larger FSW population, the definition is as follows:

Numerator: the number of respondents who answer “yes” to the question, “If a client refused to use a condom, could you refuse to have sex with him?”

Denominator: the number of respondents in the survey

Only current FSWs should be included in the numerator and denominator. Current FSWs are defined as those who have had a client in the past month.

How are the data collected?

These data are ideally collected through probability-based samples of FSWs. Because this question asks respondents to imagine what they would do in a given situation, the specific wording of the question in the local language may require special attention to convey the meaning.

See Annex 3 for more information about conducting probability-based surveys.

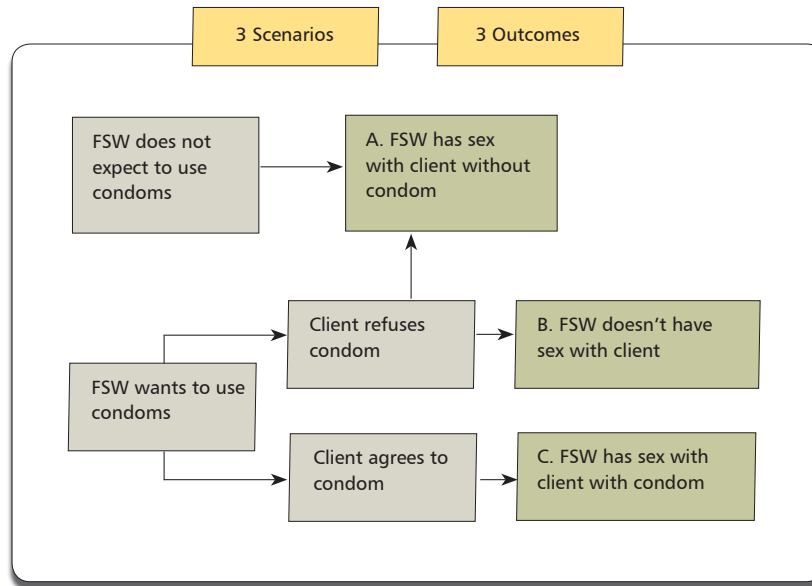
Measuring the indicator for different subgroups

This indicator can be measured separately for different types of FSWs and those who have been practising sex work for less than one year, as it is likely that issues of empowerment and an enabling environment will vary by these subgroups.



Field tips

In areas where condom use is strongly enforced by entertainment establishments, it may be less common for a client to refuse to use a condom. Adding two follow-up questions to the survey: “In the past month, how often have clients refused to use condoms?” and “In the past month, have you refused to have sex with a client because a condom was not used?” will help to describe whether FSWs feel more empowered and/or the environment has changed and clients’ refusal to use condoms has been reduced.



Indicator 9a.

Indicator 9a	Frequency	In other guidelines	Source
Number of STI cases among FSWs	Every 6 months		STI clinic register

Why is it important?

A low prevalence of curable STIs (e.g. syphilis, chlamydial infection, gonorrhoea, chancroid, etc.) among FSWs is an important outcome of STI control efforts and can have a positive influence on the transmission of HIV. A low prevalence of STIs among FSWs may reflect greater accessibility of STI services, increased awareness of and interest in the benefits of seeking treatment for symptoms of STI, and higher levels of condom use between FSWs and clients or regular partners.

How is it defined?

This is defined as the number of new cases of STI diagnosed among FSWs in the reporting period.

The baseline prevalence of different curable STIs will vary from area to area, so each FSW intervention may focus on a different curable STI on which to base their specific indicator. The best specific infection to choose for this indicator is one which is found at a relatively high prevalence among FSWs, such that declines in prevalence may be measurable. The STI chosen for the

indicator should also reflect what STI services the intervention provides. For example, if syphilis is a common STI among FSWs and the intervention encourages regular screening for syphilis, then a good choice for this indicator may be the changes in syphilis prevalence among FSWs coming for regular testing.

If an intervention only provides syndromic management of STIs, but encourages routine physical examination, then the indicator should be defined as the proportion of FSWs who come for physical examinations and who are diagnosed with an STI syndrome.

How are the data collected?

These data should be collected as a part of routine filling in of STI clinic registers that summarize what STI services each patient receives and the test result if laboratory testing is part of the routine STI services. If an STI clinic register is not maintained, laboratory records could be used to collect data on STIs which are diagnosed through laboratory tests. If neither registers nor laboratory records are available, a sample of FSW patient records can be reviewed every six months or so to calculate the proportion who have been diagnosed with an STI over a standard period of time, e.g. one month.

In areas where FSWs use clinics that are not exclusively for FSWs, it is important that the clinic records have a way to separate the test results of FSW patients from those of other types of patients in a way that does not violate the privacy of patients.

Surveys of FSWs which already include a blood specimen could consider adding syphilis testing. These results should be interpreted carefully, depending on the method used for sampling. *See Annex 5 for a sample form.*

Measuring the indicator for different subgroups

Patterns of STI among different types of FSWs may provide further information about differences in the levels of risk and effectiveness of programmes among these different groups. This indicator can also be measured separately for those coming for the first time ever to an STI clinic, and for those who have come previously for screening. First-time screening data give a better picture of STI rates in the wider community, while data on repeat visits more directly reflects the quality of STI services.

Indicator 9b.

Indicator 9b	Frequency	In other guidelines	Source
Number of new STI cases among males reported at STI clinics	Monthly		Health facility records

Why is it important?

In many areas, male patients at STI clinics frequently report recent contact with FSWs as the likely source of infection. In this situation, monitoring the rates of new STI cases among males in selected clinics provides a good way of monitoring whether prevention efforts among FSWs may be reducing the rate of STIs among men.

If condom use in sex work settings increases, the likelihood of HIV and other STIs being transmitted should decrease and fewer males should experience symptoms and seek treatment. However, declines in STI cases among males must be interpreted with caution, as interventions may also encourage male clients to seek STI services when they experience symptoms of an STI.

How is it defined?

The definition of STIs should conform to the diagnostic methods used in the reporting clinics for curable STIs. These include gonorrhoea, chlamydial infection, syphilis and chancroid. Where syndromic case management of STIs is used, STIs among males may be reported as urethral discharge (UD) and genital ulcer disease (GUD). Where gonorrhoea cultures and/or Gram-staining are routinely performed, gonorrhoea and non-gonococcal urethritis (NGU) can be monitored in addition to UD.

Only patients who come in for a new episode of STI symptoms should be counted. This will avoid double counting of patients coming for a follow-up visit for an STI episode that had been diagnosed at an earlier visit to the clinic.

For this type of indicator, it is not possible to have a denominator. Instead, the number of new cases during each reporting period can be compared with the previous number. A steady decline in the number of cases over time, especially among the subgroup which reports having had recent sex with an FSW, provides some evidence that fewer STIs are being transmitted between FSWs and clients.

Some programmes that have used STI cases among males as an indicator of performance have collected geographical information about where clients of FSWs have gone to buy sex. These data can help to pinpoint hotspots or sex venues where more effort is needed to promote condom use and address barriers to an enabling environment.

How are the data collected?

These data can be collected universally (i.e. all clinics equipped to diagnose STIs routinely report STI cases) or through a “sentinel” system. Sentinel STI surveillance involves selection of one or more sites per district. Ideal clinics for sentinel surveillance are those that have a high volume of STI cases in the main town or clinics which are known to be used by male clients of FSWs. The advantage of using a sentinel system is that it is possible to concentrate the efforts made to ensure reliability, completeness and timeliness of reporting. These data may ultimately be easier to interpret, even if they do not provide a comprehensive picture of all male STI patients.

In addition to the number of cases, it is useful if the data collection formats also record whether the patient is a recent client of an FSW and, if so, the locations they have recently visited to buy sex.

Indicator 10.

Indicator 10	Frequency	In other guidelines	Source
HIV prevalence among FSWs	Every 2 years	UNGASS, UA	FSW survey

Why is it important?

The overall measure of the impact of TIs for FSWs is whether HIV transmission has been prevented and the HIV prevalence among FSWs remains low or at the same level. In theory, assessing progress in reducing the occurrence of new infections is best done through monitoring changes in incidence over time. However, in practice, prevalence data rather than incidence data are available. In analysing prevalence data of most-at-risk-populations to assess the impact of prevention programmes, it is desirable to report on those persons who are newly initiated to behaviours that put them at risk for infection (e.g. participated in sex work for less than one year, etc.). This indicator should not be used as a direct measure of the specific performance of an intervention for FSWs. This is because changes in HIV

prevalence reflect many factors besides the impact of interventions. The level of change expected will also depend on the stage of the epidemic. However, it is useful for a national programme to know if the trend of the epidemic is changing in a positive direction, and it is useful to examine the trend in HIV prevalence among FSW.

How is it defined?

When these data come from a survey of FSWs the definition is as follows:

Numerator: the number of FSWs whose survey test result is positive

Denominator: the total number of FSWs who provide a biological specimen for testing

Only current FSWs should be counted in both the numerator and the denominator. Current FSWs should be defined as those who have had a client in the past month.

How are the data collected?

These data are best collected through probability-based surveys of FSWs in community settings. In some cases, a facility-based approach can be used, e.g. sequential samples of patients in selected TI clinics. Most importantly, to be able to look at trends over time, the same survey protocol should be used in each round of the survey.

Data for this indicator can be collected annually or less frequently, e.g. every 2–3 years, depending on local circumstances. More frequent data collection is advised in areas with a concentrated or generalized epidemic (i.e. where the prevalence of HIV among FSWs is above 5%), or in areas where other information about FSWs suggests an increase in risk behaviour or changes in the population of FSWs. Resource constraints will play a role in determining how frequently biological surveys can be conducted.

Measuring the indicator for different subgroups

Measuring HIV prevalence among different subgroups of FSWs can be helpful if these subgroups are likely to have different patterns of risk. For example, brothel-based FSWs may have a higher volume of clients per week than women who solicit clients from EEs. These different levels of risk would be expected to translate into different levels of HIV prevalence, which could be monitored separately. In some cases, measuring HIV prevalence among

FSWs who have been doing sex work for a relatively short period of time (e.g. <1 year) may give a better idea of how quickly new FSWs are becoming infected. However, these data cannot be generalized to the rate of new infections among all FSWs. This is because the risk practices of newer FSWs are likely to be very different from those of older, more experienced FSWs.

See Annex 3 for more information on conducting probability-based surveys and how to improve the data collected through facility-based surveys.



Annex 3: Overview of data collection methods

The two main approaches to collecting data are through (a) probability-based surveys and (b) routine programme data collected as part of implementing the intervention. The latter includes facility-based surveys of sequential FSWs coming for services and tracking of activities delivered by service providers.

1. Probability-based surveys of FSWs and other populations

Data for five of the 12 recommended indicators are ideally collected through probability-based samples of FSWs. Three of these are indicators that are important for outcome evaluation at the national level. Using a probability-based sampling approach provides higher quality data, but requires more resources to carry out properly. Due to the resources required for this type of survey, it is practical to conduct these surveys only periodically (e.g. every two years). Probability-based surveys should be planned carefully to optimize the utility of the information they provide.

Data from these types of surveys can help to assess the reliability of data collected on a more routine basis (e.g. comparing the percentage of FSWs who say they have used NGO services compared with the proportion calculated from outreach registers and the number of FSWs in the catchment area of the NGO). In addition to collecting data for the indicators themselves, it is also important to collect information that describes the population included in the survey (e.g. age, marital status, mobility patterns, types of solicitation points, numbers of clients, etc.).

What is a probability-based sample?

Probability-based sampling is the most rigorous method for obtaining a sample of FSWs that are representative of the larger group of FSWs in the community. Probability sampling works by using statistically valid

approaches to select participants and requires survey teams to use strict protocols for the field work. Through these methods, the probability of selection is known and can be taken into account by weighting the data during analysis.

Special probability sampling methods have been developed for FSW populations and those belonging to other high-risk groups. These innovative methods allow a probability sample to be drawn while taking into account the high degree of mobility and/or the hidden nature of these high-risk populations. Two methods used for probability sampling of FSWs are time–location cluster (TLC) sampling and respondent-driven sampling (RDS).

TLC is appropriate for FSW populations that are found in publicly accessible venues, and involves the construction of a sampling frame that considers both place and time of day/day of the week to define the clusters. During the recruitment of participants, the total number of FSWs found at that TLC is also noted and is used in the procedure for weighting.

RDS is useful when a substantial part of the FSW population does not gather in public places or areas where recruitment cannot be done during their work hours (e.g. EEs). Rather than constructing a sampling frame, a small number of FSWs are selected as seeds to start chains of recruitment in which FSWs refer their friends to the survey. A strict limit on the number of people recruited by each FSW and a system of incentives for both participation and recruitment are key aspects of conducting RDS and ensuring a probability-based sample. To be valid, RDS also requires several assumptions about the structure of the FSW population. The most important is that FSWs in the community network with each other (e.g. FSWs in one establishment have a high likelihood of knowing people who work at other EEs). Special statistical methods and software are required to analyse RDS data.

For more detailed information about probability sampling methods for high risk groups, see *Module 5: Surveillance of HIV risk behaviours*, WHO SEARO 2006. (URL: http://intranet/LinkFiles/Publications_Module-5.pdf)

1.1 Using surveillance data for programme evaluation

Increasingly, second-generation surveillance (SGS) systems, particularly in low-level and concentrated epidemics, have begun to conduct probability-based surveys of high-risk groups, including BSS and integrated biological

and behavioural surveys (IBBS). To conserve resources, some countries conduct probability-based surveys of high-risk groups, intending the survey to serve both a programme evaluation purpose and a surveillance purpose.

A few questions added to the behavioural component of these surveillance surveys can provide a cost-effective way of collecting outcome data for TI programmes. However, a few design issues should be considered to ensure that the data collected are useful and appropriate for programme evaluation purposes.

- 1) Site selection – the selection of surveillance sites may be driven by the characteristics of the epidemic (e.g. where the epidemic is most severe) and the need to monitor trends in biological and behavioural markers in representative areas of the country (e.g. regional representation). In contrast, selecting sites for surveys to evaluate programmes should be driven by where the interventions are placed. Sometimes, they must also consider the need to include evaluation areas representing sites implemented by different agencies, to compare performance. In some cases, the selection criteria for surveillance of programme evaluation may coincide, but often the sites selected diverge. Reliance on surveys designed for surveillance purposes should be assessed to see how well the sampling addresses issues of programme evaluation.
- 2) Unit of analysis – a related issue has to do with the geographical unit to which point estimates are made. For example, for surveillance purposes, a national- or state-level estimate of condom use behaviour may be desired. However, if the programme wants to evaluate outcomes at the district level because this is the administrative unit for TIs, the surveillance data may not be informative.
- 3) Definition of the target population – it is important to consider which FSWs are included in a survey and whether it matches the group whom the intervention targets. For surveillance purposes, it may be useful to define eligibility for the survey as inclusive of a broad spectrum of types of FSWs to understand the overall picture of the HIV epidemic. However, a TI programme may focus on a particular type of FSW (e.g. only street-based, or only EE-based). Using a surveillance survey that includes the wider spectrum does not provide a fair measure of programme performance. If the sample size is sufficient, it may be possible to do stratified analysis and look at the subgroup relevant to the TI programme.

1.2 General tips for interpreting data from surveys

When presenting and interpreting survey data, whether it is a probability-based survey or a facility-based survey, it is important to clearly define whom the sample is representative of in terms of type of FSW, frequency of work, duration of sex work, geographical area, pattern of mobility and exposure to the intervention. Other specific characteristics may also apply depending on the eligibility criteria (e.g. age, place of residence, definition of active/current FSW, inclusion of FSWs who exchange sex for either money or gifts, etc.). Extrapolation of the findings to a more general population of FSWs may be appropriate, but should not be presented without discussion of which FSWs may not have been included in the sample.

A probability survey gives two important types of information: the frequency/percentage of FSWs who engage in certain behaviours or have a specific disease; and a measure of how reliable that frequency or percentage is likely to be. The measure of reliability is most commonly presented as a “confidence interval” or a “*P* value”. The reliability of the data is based on the amount of random error that results from using the probability sampling method. It takes into consideration the number of people included in the sample and the value of the frequency or percentage that is being measured. In reports or presentations of data, the confidence intervals should always be presented with the point estimate. Confidence intervals describe the likely range within which the true value falls. Survey data are difficult to interpret without this information, especially when looking at differences between groups or changes over time.

In addition to considering random error, there may be other sources of bias, or systematic errors that may skew the survey result from the true value. Bias is not a statistical issue. It cannot be reduced through increasing the sample size, or quantified by calculating confidence intervals. To assess bias in survey data, analysts must look at refusal rates and the characteristics of those who refuse; understand what deviation from the recruitment protocol may have occurred; and compare sociodemographic characteristics (e.g. age, place of residence, type of FSW, exposure to the programme, etc.) of the survey sample, to known characteristics of the population intended to be represented by the survey.

Assessing bias is also helpful when interpreting trends in the uptake of services, risk behaviours, and even prevalence of disease. Trends are a measure of change in a population over time and assume that a consistent method is used and the same population of people are included at each time-point. Using the same protocols and survey instruments may be under the control of the survey team, but the FSW population is often mobile and likely to change over time. Many environmental factors can impact the number of FSWs operating in an area, how frequently FSWs take clients, and the pattern of solicitation. Identifying and acknowledging these changes in the composition of the FSW population should be discussed as part of interpreting trends.

Defining the unit of analysis is also relevant for probability-based surveys. In this context, the equivalent of a reporting unit is the geographical level to which analysis can be done, given the sample size. For example, if a survey of street-based FSWs was conducted and a sampling frame for a province was constructed, the unit of analysis would be the province. If the sample was stratified across districts in the province and sufficient numbers of people were interviewed in each district, then the unit of analysis could be the district. It is important to not overanalyse survey data and arrive at conclusions when the number of people in the subgroups are not enough to do a separate estimate. It is possible to recalculate whether there is enough statistical power to do a subgroup analysis based on the size of the subgroups and whether it is appropriate to present those results.

2. Routine programme data collected through implementation activities

Two types of data collection activities are described in this section: surveys conducted at the intervention sites and counting service statistics (e.g. outreach contacts, attendance at clinics, condoms distributed).

2.1 Role of facility-based surveys

Collecting behavioural data from FSWs who attend the STI clinic or come to the DIC is a much easier approach to conducting a survey compared with probability-based samples. This ease in logistics means that facility-based surveys can be conducted more frequently than probability-based surveys.

However, there are some limitations to the use of these types of data which should be considered when interpreting and presenting the results.

- 1) People who come to the TI facilities are not representative of the larger community of FSWs. It may be difficult to characterize how the population coming for services is different from the larger group. At best, a facility-based survey of FSWs may be generalizable to the group of FSWs seeking services.
- 2) The population seeking services is likely to change over time. Many factors can influence the type of population that comes for services, including efforts to promote uptake of services and changes in the social environment (e.g. among establishment owners or police attitudes). These population shifts make it difficult to determine whether trends in behaviour represent real changes or only reflect a difference in the group of people accessing services. When interpreting trends in facility-based data, it is important to note any changes in the volume of FSWs coming to the facility or shifts in the characteristics of FSWs included in the survey at different time points.
- 3) Involving service providers in conducting a survey may increase overreporting of socially desirable or sensitive behaviours such as condom use. Some FSWs may falsely report positive changes in behaviours, if they think their answers will be known to the outreach workers/peer educators. This may be because they want to avoid judgement or disapproval, or just because they want to help the programme appear to be having a positive effect and because their responses are not truly anonymous.

In some cases, behavioural data may be collected as part of routine risk counselling by health-care providers, counsellors or outreach staff. These data would be routinely collected and recorded on individual patient/client records. To calculate a frequency or percentage for the group of FSWs accessing services over a specific period of time, a special effort at reviewing patient/client files can be made. Interpreting the results from a review of records of this type should consider that data collected for counselling purposes may be different from data collected through anonymous surveys.

In some situations, using facility-based data is the only feasible method of collecting HIV prevalence data. This approach is most often used in conducting HIV sentinel surveillance to measure HIV prevalence among

high-risk groups. With this approach, STI clinics where large numbers of FSWs come for routine syphilis testing serve as sentinel sites.

Facility-based seroprevalence data should be used only if the following conditions hold true:

- 1) A strict sequential sample of FSWs coming to the clinic is used. No special effort should be made (such as giving incentives to staff to increase the clinic volume or to conduct outreach to bring people into the clinic during the survey period).^{§§}
- 2) Blood specimens must be collected as part of routine syphilis testing which is offered throughout the year, not just during the survey period, OR people who come to the clinic must voluntarily give informed consent to have their blood tested for HIV and a record of refusals is maintained.
- 3) The same method for conducting the survey in the facility is used in subsequent years. Strong process documentation must be maintained to record how the survey was conducted in each round.

2.2 Service statistics

Service statistics are generally recorded on registers by the staff conducting the activity. These registers often have multiple uses beyond being a tool for reporting monitoring data. Registers may have a client management function, be used for stock management, or as a record of staff productivity for managers to review.

The formats used to collect service statistics should be designed to meet the needs of these multiple uses of the data. The data should be easily and clearly entered, which means they must be appropriate for the skills and time constraints of the person carrying out the activity/filling in the register. The recommended indicators that require tracking-type data of programme activity are covered by the formats given as examples in Annex 5. The sheets can easily be modified to add or subtract elements specific to a country's TI programme. Not all formats are useful for all country programmes.

^{§§} If regular clinic volume is not sufficient to meet a pre-determined sample size, recruitment should be stopped at the normal end of the surveillance period or the protocol should be amended to do year-round testing of blood specimens submitted for syphilis.



Annex 4: Questions for inclusion in FSW surveys

The following list provides questions needed to construct the indicators recommended for FSW TI programmes. Additional questions are included, which can be considered for validation and further interpretation as mentioned in the sections on definitions of indicators, labelled “How can these data be used?” Some questions are highlighted in yellow to indicate those that may also be considered for inclusion in facility-based surveys (discussed in the next section).

Questions required for constructing the recommended indicators

1. The last time you had sex with a client, did you use a condom?
2. If you had a client who did not want to use a condom, do you think you would refuse to have sex with him?
3. Have you been tested for HIV in the past 12 months?
4. If yes, I don't want to know the results, but did you receive the results of that test?
5. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?
6. Can a person reduce the risk of getting HIV by using a condom every time they have sex?
7. Can a healthy-looking person have HIV?
8. Can a person get HIV from mosquito bites?
9. Can a person get HIV by sharing food with someone who is infected?

Questions for validation and further interpretation

Profile of the FSW respondents

1. Where do you most often solicit clients? Read responses – (list all the most common places for solicitation, e.g. [a] at a brothel, [b] at a hotel or guesthouse, [c] at a bar, [d] from the street or other public area, [e] other)

2. What is your current age?
3. How long have you been practising sex work?
4. In the past week, how many paying clients have you had?
5. On the last day that you worked, how many clients did you have?
6. In the last week that you worked, how many days did you have paying clients?

Reliability of condom use

- In the past one month (or x months), how often did you use condoms with your clients? (Always, most of the time, sometimes, never)
- The last time you had sex with your regular partner, did you use a condom? (Yes/No)
- In the past one month (or x months), how often did you use condoms with your regular partner? (Always, most of the time, sometimes, never)

Interpretation of condom use empowerment

- In the past month, how often have clients refused to use condoms when asked? (Always, most of the time, sometimes, never)
- In the past month, have you refused to have sex with a client because a condom was not used? (Yes/No)

Validating coverage indicators from routine monitoring data

- In the past year, have you used services from _____NGO? (insert the name of local NGO)
- In the past year, have you received free condoms (through an outreach service, DIC or sexual health clinic)?
- In the past month, have you been contacted by an outreach worker?
- In the past month, have you received condoms from an outreach worker?
- In the past three months, how often have you been to an STI clinic? (time-frame can be tailored to match the time-frame of data captured through routine monitoring data)

Annex 5: Sample data collection formats

1. TI site registration form

Purpose: To summarize the services provided by each TI project site

Maintained by: Central administration/Programme officer

Updated: As information changes, at least annually

Site code no.		Date site initiated	
Implementing agency/NGO			
District/geographical area			
Address			
Phone			
Email			
Programme manager			
No. of FSWs mapped in the area		Date of last mapping exercise	
Services provided			
Outreach	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Free condom distribution	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Social marketing of condoms	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
STI services	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Type of clinic	<input type="checkbox"/> Fixed	<input type="checkbox"/> Mobile	<input type="checkbox"/> Preferred provider <input type="checkbox"/> Referral only
Counselling and testing	<input type="checkbox"/> On-site	<input type="checkbox"/> Referral	<input type="checkbox"/> None
Basic AIDS care	<input type="checkbox"/> On-site	<input type="checkbox"/> Referral	<input type="checkbox"/> None
OI diagnosis and treatment	<input type="checkbox"/> On-site	<input type="checkbox"/> Referral	<input type="checkbox"/> None
ART	<input type="checkbox"/> On-site	<input type="checkbox"/> Referral	<input type="checkbox"/> None
Psychosocial support	<input type="checkbox"/> On-site	<input type="checkbox"/> Referral	<input type="checkbox"/> None

Instructions for filling in

Site code no.	Enter the three-digit code assigned to this TI site.
Date site initiated	Enter the date the NGO started their TI programme.
Implementing agency/NGO	Write the name of the NGO contracted to provide the TI services.
District	Write the full name of the district where the main project office is located.
Address	Write the mailing address of the main project office.
Phone	Enter the phone number of the main project office.
Fax	Enter the fax number of the main project office, if available.
Email	Enter the email address that should be used for official communication.
Programme manager	Enter the name of the person responsible for managing the project site.
No. of FSWs mapped	Enter the number of FSWs estimated to be in the catchment area.
Date of last mapping exercise	Enter the date corresponding to the mapping exercise used to estimate the number of FSWs entered in the previous field.
Services provided	Check the boxes that correspond to the services provided by the NGO.
Outreach	This refers to project staff, including peer educators who go outside the project office/DIC to contact FSWs.
Free condom distribution	Distribution may be done through outreach or by putting condoms in boxes/depots for FSWs to take as needed.
Social marketing of condoms	This refers to promotion of subsidized brands of condoms targeted at FSWs or their clients.
STI services	May include a fixed clinic specifically for FSWs, a mobile clinic that moves to areas that are convenient for FSWs to access, preferred provider in the community contracted on a part-time basis to take on FSW patients, or referral only, in which FSWs are referred to private or government clinics for STI services.
On-site or referral	On-site services are those provided in the DIC or a fixed FSW clinic. Referrals for FSWs should include specific information about a place to go for services that will be friendly and welcoming to FSWs.

2. Registration of entertainment establishments

Purpose: To maintain a listing of EEs where FSWs solicit clients

Maintained by: Central administration/Programme officer

Updated: With each site visit/as information changes, at least annually

Site code no.			
Establishment name			
Type of establishment			
District/geographical area			
Address			
Phone			
Owner			
Date site registered with 100% CUP			
No. of women working at establishment			
Level of participation	Date of change and why		
Condom boxes on site	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Workers able to access STI services	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Workers able to attend 100% Condom Use Programme (CUP) events	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
100% CUP staff can access establishment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Instructions for filling in

Site code no.	Enter the three-digit code assigned to this EE.
Establishment name	Enter the name of the EE.
Type of establishment	Choose the most relevant category for this EE: KB: karaoke bar, DB: dance bar, SB: service bar, MP: massage parlour, B: brothel, O: other.
District	Enter the name of the district where the establishment is located.
Address	Enter the street address and useful landmarks for this site.
Phone	Enter the phone number for reaching this site.
Owner	Enter the name of the owner or manager who can be contacted for gaining access to this EE.
Date site registered with 100% CUP	Enter the date the owner or manager agreed to participate.
No. of women working at establishment	Enter the approximate number of women who provide services at the EE.
Level of participation	Enter "yes" or "no" for each of the different types of involvement. If there has been a change, enter information about when participation has changed and why.





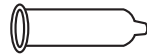
3. Activity registers for outreach workers/peer educators

a. For counting contacts – outreach workers/peer educators with low literacy levels

Purpose: To record the activities performed by outreach workers or peer educators

Maintained by: Outreach workers and peer educators, to be turned in to supervisors on a weekly basis

Completed: As outreach is conducted, forms are filled in to maintain data quality

Date	<input type="text"/>	ID number	<input type="text"/>
Notes	<input style="height: 100px;" type="text"/>		
Please tick on the following as appropriate			
			
			
<p><i>Source:</i> Adapted from Karnataka Health Promotion Trust. <i>Planning with the community. Guide to community involvement in planning and monitoring sex work programmes.</i> Bangalore, KHPT, 2005.</p>			

Instructions for filling in

ID number	Enter the ID number of the FSW(s) who were contacted
Hands together	Rapport building and brief contact
Two people standing	A one-on-one BCC session with an FSW
Group of people	A group BCC session with FSWs
Doctor's stethoscope and pills	The FSW was referred to attend clinic
Condom	Condoms were given to the FSW

b. For counting contacts – literate outreach workers/peer educators; can be used to track individuals

Maintained by: Outreach workers or peer educators

Updated: Filled in daily as activity is conducted, one sheet per month

Site code:

District:

Outreach staff name/code no.:

Month:

Year:

FSW ID no.	One-on-one communication (enter date)			Condoms distributed (enter no. of pieces)						Total	STI referral	Attended clinic		
	New	No.	Date	No.	Date	No.	Date	No.	Date				Condoms	Contacts
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
Total new:													Totals:	

Instructions for filling in

Site code: Enter the three-digit code corresponding to the TI site.

District: Enter the district where the main project office is located.

Outreach staff name/code no.: Enter the name or ID code of the outreach worker/peer educator conducting the activity.

FSW ID no.: For each FSW contacted by the outreach worker/peer educator during the month, list the individual by their chosen identifier.

New: When the FSW is contacted for the first time ever through outreach, write the date (day) in the column for New.

For each contact, write the date (day) in the white column, and write the no. of condoms given in the adjacent green column.

At the end of the month, tally the number of contacts and the number of condoms given in the Totals columns to the right.

If the FSW is referred to the STI clinic during the month, indicate the date on which the referral was made.

If the FSW has been to the clinic during the month, indicate this with a check mark in the Attended clinic column.



**World Health
Organization**

South-East Asia Region

Western Pacific Region

This toolkit aims to demonstrate how a small number of recommended indicators can provide critical information to guide interventions. These tools can be used at different levels of management to track the progress of a programme and focus efforts on achieving targets. Special attention is paid to how data can be used by on-site managers to help them make periodic decisions.

The intended audience for this toolkit includes **project directors or project managers of sites, monitoring and evaluation (M&E) officers** from nongovernmental organizations, **state/provincial health officers** and **national M&E officers**.

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