



**Training of Doctors  
to Deliver  
Quality STI/RTI Services**

**Facilitator's Manual**

# Contents

Page

Background

Instructions for Facilitators

Module 1: Introducing the Workshop

Module 2: Public health importance of STIs/RTIs

Module 3: Common STIs/RTIs and their complications

Module 4: Approaches to STI/RTI management

Module 5: Flowcharts for syndromic management of STIs/RTIs

Module 6: History taking and risk assessment

Module 7: Clinical examination for STIs//RTIs

Module 8: Laboratory tests for STIs/RTIs

Module 9: Client education and counseling

Module 10: Partner management

Module 11: Involving men in STI/RTI prevention and control

Module 12: Management of STIs/RTIs in sex workers

Module 13: Preventing STIs/RTIs in adolescents and youth

Module 14: Management of STIs/RTIs in sexual violence

Module 15: Making condoms work better

# **BACKGROUND**

Suggestion: A brief introduction of this Manual including the STI/RTI scenario, the Workshop and its purpose (in the context of the wider RH and STI/RTI prevention and control programmes); target audience; broad Workshop content, structure and duration; the need for/usefulness of the Manual etc may be given

# Instructions for Facilitators

1. This Training Workshop is intended for doctors responsible for delivering STI/RTI services in medical colleges, district hospitals and targeted intervention sites.
2. The content of the training modules is based on the “National Guidelines on Prevention, Management and Control of Reproductive Tract Infections including Sexually Transmitted Infections”, August 2007, issued by NACO, and similar publications of the World Health Organization (WHO).
3. The scope of the discussions is limited to the job responsibilities of doctors (Medical Officers) as described in the “Operational Guidelines for Programme Managers and Service Providers for Strengthening STI/RTI Services”, NACO, October 2007.
4. The facilitator is expected to be well acquainted with adult learning principles and learning techniques such as interactive presentation, case-study, role play and demonstration.
5. It is absolutely essential that the facilitator has complete conviction in the syndromic management approach to STIs/RTIs and actively practices it.
6. It is mandatory for the facilitator to read through and understand the entire content of this Facilitator’s Manual, including the PowerPoint slides for each module, thoroughly. This will help the facilitator to prepare and become familiar with the content well in advance so that the module/session runs smoothly. It will also help her/him to discuss the topic/s competently and refer to other modules/sessions as and when relevant.
7. The facilitator is advised to arrange a dry run or a practice run of the entire Workshop before conducting the modules/sessions for the Workshop participants (trainees).

## Using Workshop Materials

The Workshop materials are:

1. “National Guidelines on Prevention, Management and Control of Reproductive Tract Infections including Sexually Transmitted Infections”, NACO, August 2007, on which the content of this training Workshop is based. This document will hitherto be referred to as the “National Technical Guidelines” for the sake of brevity.
2. “Operational Guidelines for Programme Managers and Service Providers for Strengthening STI/RTI Services”, NACO, October 2007, which provides the parameters for discussions consistent with the job responsibilities of the trainees (doctors/Medical Officers). This document will hitherto be referred to as the “Operational Guidelines” for the sake of brevity.
3. A set of PowerPoint slides.
4. Facilitator’s Manual for “Training of Doctors to Deliver Quality STI/RTI Services”.

## PowerPoint Slides

1. PowerPoint slides have been created for each training module to assist the facilitator to conduct the module/session systematically and effectively.

2. The slides are meant for reference and recall of key points for discussion
3. The slides are numbered according to the module they belong to and their chronological number within that module. For example, Slide M8/15 is Module No. 8, Slide No. 15 or Slide No. 15 in Module No. 8.
4. We strongly recommend that the facilitator should not read out the slides. S/he should pick up a point or an issue on the slide and discuss it by supplementing it with relevant content from the “National Technical Guidelines” and “Operational Guidelines”. Guidance for the talking points is provided in the Facilitator’s Manual.
5. All the slides have animation to help the facilitator to display the key points on the slides sequentially, step-by-step.
6. The Facilitator’s Manual contains clear instructions on when and how to use each slide. We recommend that these instructions be followed carefully, without deviating from them.
7. We recommend that the facilitator self-operate the computer and change the slides in order to better coordinate between what s/he says and what s/he shows on the slide. The facilitator should not rely on others for changing slides as it invariably results in poor coordination.
8. The facilitator should go through the entire set of slides required for a module/session before using them to ensure a smooth and efficient presentation.

### **Facilitator’s Manual**

1. We strongly recommend that the facilitator reads the Facilitator’s Manual very carefully.
2. The Facilitator’s Manual provides detailed instructions for facilitating each session of the modules.
3. Each module contains the following components:
  - i. Module Number: denotes the module number.
  - ii. Module caption: is the topic covered by the module.
  - iii. Learning objectives: are the objectives to be achieved by the participants on completion of a module.
  - iv. Materials required: provides a list of the materials required for conducting the module. These comprise essential supplies such as blank flip charts, marker pens etc, common to all modules, as well as specific requirements for a certain session/sessions of a module. The facilitator must review the list of materials required for a module while preparing her/his presentation and ensure that s/he has all the necessary materials. The ‘Materials required’ and the following component – “Preparation by facilitator” [see (v) below] – are given in grey shaded boxes at the beginning of each module.
  - v. Preparation by facilitator: contains instructions for the facilitator to prepare herself/himself for conducting the sessions of a given module competently.
  - vi. Module outline: shows the number of sessions in a particular module along with the recommended training technique or methodology.
  - vii. Sessions: The content of each module is distributed across two or more sessions, each with its own objective/s. It is recommended that not more than two facilitators conduct any one session (preferably one facilitator, unless the session is too extensive, such as those in the modules on flowcharts and client education and counseling).
  - viii. Instructions for facilitator/s: Instructions for facilitating sessions are presented in grey shaded areas in boxes. The instructions are in the “active voice”. The facilitator is expected to conduct

the module/session by following these stepwise instructions. The instructions include the actual statements, given in “inverted commas”, which the facilitator is expected to speak out, as well as instructions which s/he is expected to read and follow step by step as s/he conducts the module/session.

- ix. Exercises and group work instructions are also provided in the shaded boxes.
  - x. The facilitator should go through the content of the shaded boxes very carefully and understand the discussion points and how to use them.
  - xi. In addition to the shaded boxes, many sessions contain text which is not shaded. This text provides details of discussion points/issues that are relevant to the session. Some of this text namely, introductory statements for certain modules, and tips and reminders for the facilitator are boxed. We strongly recommend that the facilitator uses this information to make the presentation more informative and helpful.
4. PowerPoint slides are incorporated in the instructions by their individual slide numbers for easy identification and to enable the facilitator to follow the slide sequence in a systematic and stepwise manner.

# **MODULE 1**

## **INTRODUCING THE WORKSHOP**

# MODULE 1

## Introducing the Workshop

### Learning Objectives:

At the end of this module, the participants will be able to:

1. Introduce themselves to the group
2. State and describe the objectives of the Workshop
3. Set behavioral norms for effective learning
4. Provide an overview of the Workshop

### Materials:

- Overhead/LCD projector
- PowerPoint slides for the session
- Blank flip charts
- A flip chart with Workshop objectives written on it (Session 3)
- A flip chart showing a Satisfaction Meter (Session 3)
- Small cards (at least 34) with a pairing word written on each card (for an introduction game; Session 2)
- Marker pens

### Preparation by facilitator:

- Read through the content of the session, PowerPoint slides and reference materials thoroughly.
- Become familiar with the content and its flow.
- Discuss the session beforehand with your co-facilitator and ensure her/his readiness to assist you during the session.

### Module outline

Session No.	Topic	Methodology
1.	Introduction to Module 1	
2.	Getting to know each other	Group exercise
3.	Workshop objectives and norms	Interactive presentation
4.	Pre-workshop assessment	Pre-training assessment

# SESSION 1

## Introduction to Module 1

### Objective:

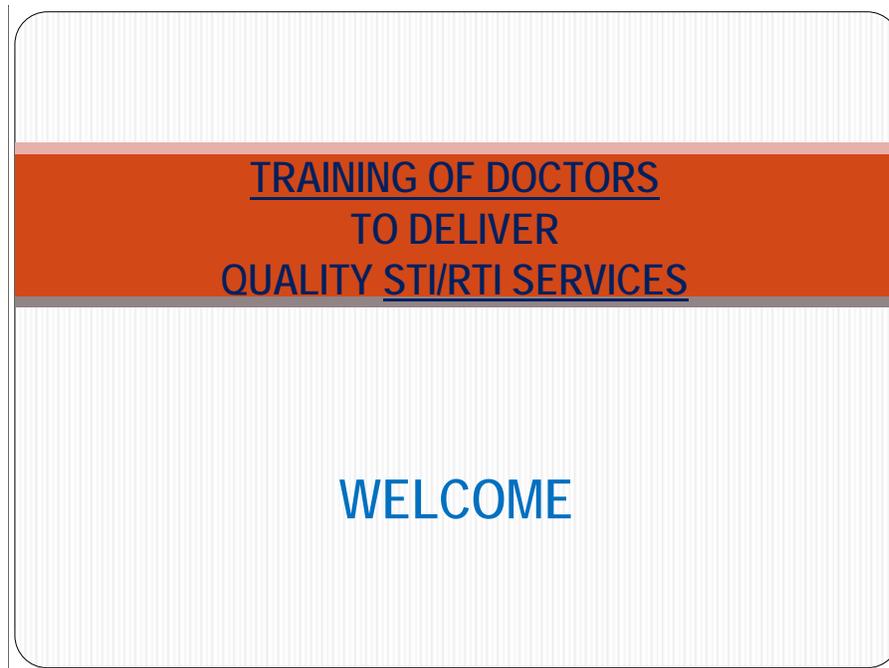
At the end of this session, the participants will be able to:

- Provide an overview of this module

Show Slide 1 and welcome the participants.

Say: “We are very happy to have you here for this Workshop on “Training of Doctors to Deliver Quality STI/RTI Services”.

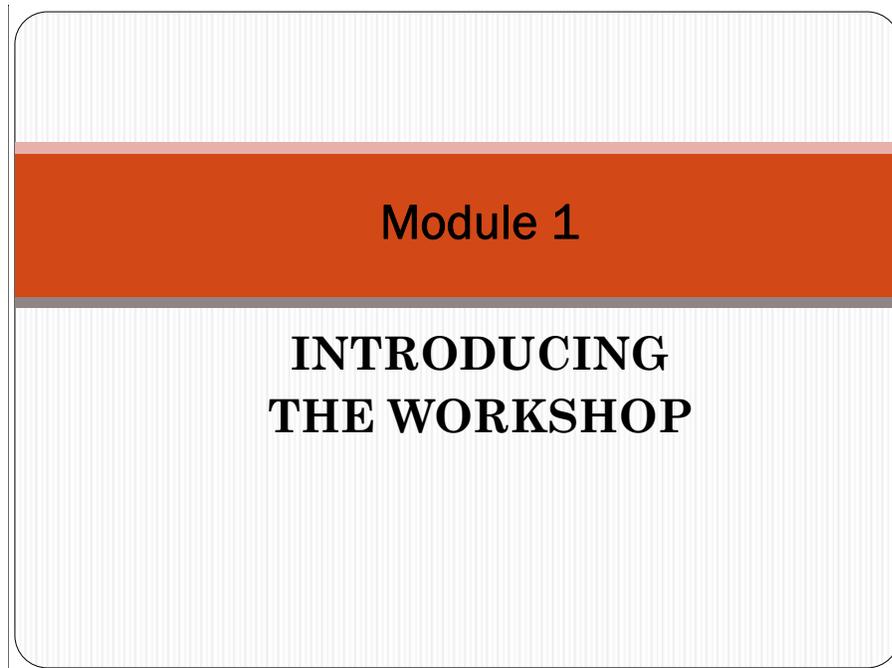
### Slide 1



Now, show Slide 2 and say : “The content of this Workshop is based on the job responsibilities of doctors (Medical Officers) as stated in the “Operational Guidelines” issued by NACO (see Appendix D, page 50).

“We will begin the next session of this module with a game to help us get to know each other. We will then move on to discuss the objectives of the Workshop. We will also set down some ground rules or norms to help us to work comfortably and make the fullest use of our time here. We will conclude the module with a Pre-Workshop Assessment, an exercise which will help us, your facilitators, to appraise your knowledge of STIs/RTIs and their management so that we can

**Slide 2**



## SESSION 2

### Getting to know each other

#### Objectives:

At the end of this session, the participants and facilitators will be able to:

- Identify each other in the group
- Establish rapport with other participants in the group

Welcome the participants once again to this first session of the Workshop and the first module

Introduce the session by saying: “The purpose of this session is to introduce ourselves to each other because, as you are aware, we have participants who have come from different locations. This activity is important in order to ensure that we have an open and participatory atmosphere throughout the Workshop. The next session of this Module will cover the objectives and agenda of the Workshop.”

Now, say: “Now, let us get introduced to each other through a small exercise on introductions. Each participant will be given a card with a word of a well-known word-pair written on it. HIV-AIDS, Husband-Wife, Laila-Majnoo, and Romeo-Juliet are some examples of well-known word-pairs.”

Keep at least 17 word-pairs (that is, 34 cards) ready, assuming that at any given workshop there would be, on average, at least 30 participants and 3-4 facilitators. However, use only as many word-pair cards as the number of participants present.

Now, show Slide 3.

Hand out the word-pair cards; one card to each participant, and say: “You have to find your partner with the help of your card. That is, find the person who has a card with the word which pairs with the word on your card.”

When all the participants have found their ‘word-pair’ partners, ask each pair of partners to get to know each other by talking to each other for 3 minutes, using the points written on Slide 3 under “Know your partner”.

### Slide 3

#### GETTING TO KNOW EACH OTHER

- Get one card from your facilitator
- Find your partner
- Know your partner:
  - Name
  - Qualifications
  - Organization
  - Years of experience
  - One hobby
  - Expectation from Workshop
- Now introduce your partner

When the participants are ready, ask them to introduce their partners. Tell the participant who is being introduced to stand up.

The facilitator/s must also participate in this introduction activity.

Now, move on to Session 3.

## SESSION 3

### Workshop objectives and norms

#### Objectives:

At the end of this session, the participants will be able to:

- List their expectations of the Workshop
- Describe the objectives and norms of the Workshop

Begin the session by saying: “Looking at the title of this Workshop, what would you expect from it?”

Put up a blank flip chart with the caption: “Participant expectations”.

Let each participant share one major expectation.

Write the participants’ expectations on the flip chart. Do not stop or interrupt them even if an expectation is beyond the scope of the Workshop.

Explain that the entire discussion will be based on “what a doctor can do in a typical clinic setting”.

State that other supporting clinic staff such as nurses and laboratory technicians will also be trained at similar workshops so that they can effectively assist the doctor in managing STI/RTI patients.

#### Slide 4

##### WORKSHOP OBJECTIVES

- Appreciate the burden of STIs/RTIs in the community and country
- Take the history and perform clinical examinations of STI/RTI clients
- Demonstrate the use of syndromic management flowcharts to diagnose and treat STI/RTI clients
- Educate and counsel STI/RTI clients about the prevention and successful treatment of STIs/RTIs
- Treat partners of STI/RTI clients attending the clinic
- Provide treatment and client education for STIs/RTIs among special groups

Now, compare the participants' expectations on the flip chart with the Workshop objectives on Slide 4.

If a participant expectation is related to STIs/RTIs but is not directly addressed by the Workshop, explain that it will not be possible to take it up during Workshop sessions; however, facilitators will be available to discuss it during breaks.

If an expectation is not pertinent to the Workshop agenda, mention politely that it will not be possible to meet it at this Workshop.

Put up the previously prepared flip chart with the Workshop objectives written on it, in a prominent place on the wall of the classroom. Let it remain there throughout the Workshop.

Next, hand out a copy each of the "National Technical Guidelines" and "Operational Guidelines" to each participant.

Inform them that the Workshop is of three days' duration – the first two days will be devoted to classroom discussion and skills practice, and the last day to clinical practicum.

Explain that the Workshop programme is tightly structured, requiring everyone's presence and active participation.

Show Slide 5 and clarify that the Workshop is based on the learning principles shown on the slide. Therefore, all the participants are expected to participate actively in the discussions and practice sessions.

### Slide 5

## **LEARNING PRINCIPLES**

**What I hear, I forget**

**What I see, I remember**

**What I do, I understand**

Say: “The purpose of this Workshop is to make the best use of our time and resources to learn the essentials of STI/RTI management within its 3-day duration. Therefore, we need to have some norms to ensure that this learning happens in a congenial atmosphere. Let us try to set some norms for making this happen.”

Ask the participants to name some norms or rules that they would like to follow during the Workshop.

List the norms on a blank flip chart.

Finally, show Slide 6 and add the norms not mentioned by the participants, to the flip chart.

Emphasize that participation by everyone is essential for good learning. Tell them that they are welcome to share their experiences of STI/RTI case management during the discussion sessions.

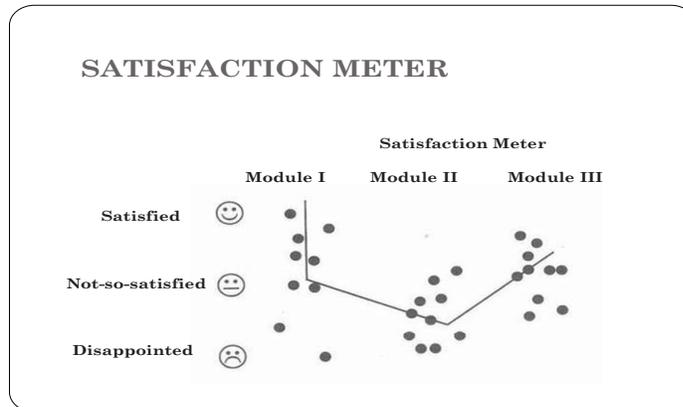
## Slide 6

### WORKSHOP NORMS

- Treat everyone with respect
- Respect timelines
- Speak one at a time
- Provide feedback, respecting **the** feelings of others
- Keep mobile phones in silent mode

Now, show Slide 7 and say: “Everyone will get an opportunity to express her/his views on the quality of the discussions held on each module covered on each day of the Workshop. You can do so by recording your opinion on a ‘Satisfaction Meter’ provided on a flip chart in this room.”

## Slide 7



Place a 'Mailbox' in a corner of the classroom and explain that it will remain there at all times, throughout the Workshop, so that the participants can write down question/s related to the topics covered each day and drop them in it. Encourage them to use the Mailbox; tell them that they need not write their names to their questions.

Also tell them that the facilitator will answer their questions on the following day.

### Remember ...

Put up the **Satisfaction-Meter** every day, one for each module covered on that day.

The "**Mailbox**" serves as a vehicle for the participants to convey any questions/matters arising during the Workshop to the facilitator/s so that they can be addressed promptly. Place the **Mailbox** in an easily accessible place. Check it every evening and answer the questions in it, the next morning.

## SESSION 4

### Pre-Workshop Assessment

#### Objective:

At the end of this session, the facilitators will be able to:

- Assess the participants' current level of knowledge of STI/RTI prevention and management

Show Slide 8 and explain that the purpose of this test is to make a pre-workshop evaluation of the knowledge of the participants.

#### Slide 8

### PRE-WORKSHOP ASSESSMENT

- To assess our current level of knowledge and skills
- To plan for improving specific knowledge and skills areas
- Time 30 minutes

Dispel the apprehensions of the participants by telling them that it does not matter if they do not know the answers to some of the questions.

Overall, their answers will help the facilitator/s to assess their existing knowledge of STI/RTI prevention and management and other issues related to reproductive health. Clarify that this will enable the facilitator to lay more emphasis on topics which show gaps in information when s/he discusses these topics during the course of the Workshop.

- Give each participant a Pre-Workshop Assessment Form.

**Remember ...**

The Pre-Workshop Assessment Forms must be evaluated before the first session following the tea-break on Day 1 of the Workshop. This is essential as it will help the facilitator/s to identify areas in which the participants are relatively well-informed and areas which need emphasis.

The Answer Key of the Pre-Workshop Assessment Form is given at the end of this session for your reference. One of the facilitators should use the Answer Key to correct and score the completed Forms.

Score 1 mark for each correct answer to a question in Sections A and C, and 2 marks for each correct answer to a question in Section B. After correcting each Pre-Workshop Assessment Form, add the total marks obtained and calculate the percentage score.

# Training of Doctors to Deliver Quality STI/RTI Services

## PRE-WORKSHOP ASSESSMENT FORM

Name of State: \_\_\_\_\_ Name of District: \_\_\_\_\_

Name of Block/Taluka : \_\_\_\_\_

Name of Designated STI Clinic: \_\_\_\_\_

Sr. No.: \_\_\_\_\_

Designation of Participant: \_\_\_\_\_

Dates of Workshop: \_\_\_\_\_ Date of Test: \_\_\_\_\_

### Instructions

- Answer all the questions in Sections A, B, and C.
- Read each question and the multiple choices carefully, and tick the correct answer.
- Follow the specific directions for each Section.
- This exercise carries a total of 100 marks.

### SECTION A

*Tick ( ✓ ) the circle 'True' or 'False'.*

1. STIs are passed from person to person mainly through sexual contact.  
 True |  False
2. *Safer sex* refers to practices that allow partners to reduce their sexual health risks.  
 True |  False
3. It is possible to have a STI/RTI without having any signs or symptoms of infection.  
 True |  False
4. STIs/RTIs can be classified according to syndromes and type of infectious agent.  
 True |  False
5. An experienced clinician can accurately diagnose STIs/RTIs based solely on her/his past experience, the client's symptoms and the clinical signs observed during a physical examination.  
 True |  False
6. Etiological management is the most accurate of the three approaches (clinical, etiological and syndromic) to STI/RTI management.  
 True |  False

7. All STIs/RTIs are easily curable with antibiotics.  
 True |  False
8. If left untreated, STIs/RTIs can cause serious complications.  
 True |  False
9. Gonorrhoea is one of the causes of vaginal discharge in women.  
 True |  False
10. Asymptomatic infections cannot be passed to a partner during sexual contact.  
 True |  False
11. Partners need not be referred for STI/RTI diagnosis and treatment unless they have signs and symptoms of infection.  
 True |  False
12. Single-dose therapy is preferable to multiple-dose therapy for STIs/RTIs.  
 True |  False
13. STI treatment and prevention can be important tools for limiting the spread of HIV.  
 True |  False
14. Biologically, both men and women are equally vulnerable to a STI from a sexual partner.  
 True |  False
15. Using spermicides can prevent STI/RTI transmission.  
 True |  False
16. Condoms are the only barrier method proven to be highly effective against STI/RTI transmission and pregnancy prevention.  
 True |  False
17. Cervical cancer can be prevented by screening women for herpes.  
 True |  False
18. In order to communicate effectively with clients, providers should use only medical terminology when discussing sexual anatomy.  
 True |  False

## SECTION B

*Select two correct answers to each question. Place a tick mark ( ✓ ) in the left margin, next to the correct answers.*

1. Why are STIs/RTIs, excluding HIV, regarded as a public health priority?
  - a) Because all STIs/RTIs are incurable even if they are treated promptly.
  - b) Because they have severe health consequences.
  - c) Because treating them promptly can help prevent the spread of HIV.
  - d) Because STIs/RTIs are the Number One cause of death in our country.
  
2. Women are more vulnerable to STIs/RTIs than men are because:
  - a) Pregnancy and breastfeeding lower a woman's resistance to STIs/RTIs.
  - b) Women are often anemic.
  - c) Semen stays in contact with the vaginal wall for a long time.
  - d) Women have less power to negotiate safer sex.
  
3. Which of the following consequences may result if STIs/RTIs are not treated?
  - a) Women may develop breast cancer.
  - b) Women may become infertile.
  - c) Men may become infertile.
  - d) Men may develop brain tumor.
  
4. Which are the most common signs of STIs/RTIs?
  - a) Genital ulcers.
  - b) Genital discharge.
  - c) Generalized swelling of the lymph nodes.
  - d) Loss of weight.
  
5. The two main elements of STI/RTI control are:
  - a) Case management.
  - b) Legalizing prostitution.
  - c) Prevention.
  - d) Providing laboratory diagnosis at all clinics.
  
6. The disadvantages of syndromic management include which of the following?
  - a) The potential over-use of antibiotics.
  - b) Patients must wait for treatment.
  - c) It avoids wrong treatment since all possible RTIs causing signs and symptoms are treated at once.
  - d) It does not work well for vaginal discharge.
  
7. A young woman who has come to you with vaginal discharge is at a high risk for STIs. Before prescribing medication for her, what is most important for you to know from her?
  - a) If she has multiple partners.
  - b) Whether she can afford the medication.
  - c) Whether she is pregnant or breastfeeding.
  - d) When was her last menstrual period?
  
8. Education about sexual health for girls and boys:
  - a) Helps in preventing unwanted pregnancy.
  - b) Delays the age of onset of sexual activity.

- c) Encourages early sexual activity.
  - d) Increases unsafe abortion.
9. Which of the following are open-ended questions?
- a) Tell me about your symptoms.
  - b) Is the discharge milky or clear?
  - c) Did you use a condom the last time you had sex?
  - d) What does the pain feel like?

## SECTION C

**Select only one answer. Place a tick mark ( ✓ ) in the left margin, next to the correct answer.**

1. Which of the following contributes to the rapid spread of STIs/RTIs?
  - a) Lack of sufficient laboratory facilities for diagnosis.
  - b) Poor hygiene.
  - c) Lack of effective drugs.
  - d) High-risk sexual behavior.
  
2. In women, the signs and symptoms of STIs/RTIs are often:
  - a) More easily recognized than in men.
  - b) Less reliable indicators of disease than in men.
  - c) Less likely to become serious than they are in men.
  - d) More likely to affect older women.
  
3. When a patient complains of symptoms of STIs/RTIs, the following examination is ideal:
  - a) A general physical examination.
  - b) A genital examination.
  - c) Both general physical and genital examinations.
  - d) Neither is necessary when using a syndromic approach to STI/RTI management.
  
4. Examination for urethral discharge in men should be done:
  - a) Without retracting the foreskin in uncircumcised men.
  - b) By asking the patient to urinate before the examination.
  - c) By asking the patient to milk the penis if you do not see any discharge.
  - d) By asking the patient to wipe off his penis before you examine him.
  
5. The main causes of urethral discharge are:
  - a) Syphilis and gonorrhoea.
  - b) Herpes simplex and chancroid.
  - c) Gonorrhoea and chlamydia.
  - d) Chlamydia and syphilis.
  
6. A woman has cervical mucopurulent discharge and lower abdominal pain with no rebound tenderness or guarding. Which of the following is correct?
  - a) She should be referred immediately to a surgeon.
  - b) She should be treated for PID.
  - c) Trichomonas vaginalis is probably the causative organism.
  - d) She is unlikely to have complications unless she is pregnant.

7. Genital ulcer disease is important because:
- It is a major cause of infertility.
  - It may facilitate the spread of HIV.
  - It often causes impotence in men.
  - It is usually associated with another RTI.
8. Which of the following laboratory tests is most useful for STI/RTI control in developing countries?
- Screening tests for syphilis such as RPR or VDRL test.
  - Gram stain for gonorrhoea.
  - Urine LED (leukocyte esterase dipstick) for white blood cells.
  - Gonorrhoea culture.
9. A person infected with chancroid will often have:
- Genital ulcers which come and go spontaneously over many months.
  - Genital ulcers that progress, causing extensive tissue damage if not treated.
  - A genital ulcer that lasts one or two weeks and then resolves completely on its own.
  - Multiple, painful vesicles filled with clear fluid.
10. A young female sex worker comes to you with vaginal discharge. She says she has had various STIs/RTIs several times in the past. Which of the following is the most appropriate action to take?
- Find out what she knows about STIs/RTIs.
  - Tell her to find other work.
  - Warn her that she might have a STI/RTI.
  - Avoid topics that might embarrass her.
11. Using the enhanced syndromic approach to STI/RTI management, providers diagnose and treat infections based on:
- The results of laboratory tests.
  - Classifications that have been developed on the basis of the client's symptoms and clinical signs.
  - Only clinical signs found upon physical examination.
  - All of the above.
12. Syndromic management is of limited utility in clients who present with the following syndrome:
- Vaginal discharge.
  - Genital ulcers.
  - Scrotal swelling.
  - Urethral discharge.
13. In men, urethral discharge can be a sign of:
- Chlamydia.
  - Gonorrhoea.
  - Trichomoniasis.
  - All of the above.
14. Swelling or pain in the scrotum can be caused by:
- Chlamydia.
  - Hepatitis C.
  - Yeast infection.
  - All of the above.

15. Which of the following questions may help you assess a person's risk of getting or giving a STI/RTI?
- a) Does your partner live away from home?
  - b) Are you over 30 years old?
  - c) Do you know anyone with AIDS?
  - d) Have you had a new sexual partner in the past three months?
  - e) Have you ever had a STI?
  - f) b, c and e.
  - g) a, d, and e.
16. Hepatitis B, hepatitis C and HIV infection can be transmitted:
- a) Through unprotected sexual intercourse.
  - b) Through shared needles, razors, toothbrushes, skin-cutting tools, or tattooing instruments.
  - c) From mother to child during pregnancy and delivery.
  - d) All of the above.
17. The following are all good ways of preventing STIs/RTIs in married women having a monogamous relationship except:
- a) Making sure that STI/RTI services are available to their husbands.
  - b) Outlawing prostitution.
  - c) Promoting widespread condom use.
  - d) Giving women the skills to negotiate safer sex.
18. Which of the following is a critical component of STI/RTI management?
- a) Condom promotion.
  - b) Partner notification.
  - c) Counseling and education.
  - d) All of the above.

## ANSWER KEY

### SECTION A: Tick ( ✓ ) the circle 'True' or 'False'.

1. STIs are passed from person to person mainly through sexual contact.  
 True |  False  
**Answer:** True
2. *Safer sex* refers to practices that allow partners to reduce their sexual health risks.  
 True |  False  
**Answer:** True
3. It is possible to have a STI/RTI without having any signs or symptoms of infection.  
 True |  False  
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4. STIs/RTIs can be classified according to syndromes and type of infectious agent.  
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**Answer:** False
6. Etiological management is the most accurate of the three approaches (clinical, etiological and syndromic) to STI/RTI management.  
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 True |  False  
**Answer:** True
13. STI treatment and prevention can be important tools for limiting the spread of HIV.  
 True |  False  
**Answer:** True

14. Biologically, both men and women are equally vulnerable to contracting a STI from a sexual partner.  
 True |  False  
**Answer:** False
15. Using spermicides can prevent STI/RTI transmission.  
 True |  False  
**Answer:** False
16. Condoms are the only barrier method proven to be highly effective against STI/RTI transmission and pregnancy prevention.  
 True |  False  
**Answer:** True
17. Cervical cancer can be prevented by screening women for herpes.  
 True |  False  
**Answer:** False
18. In order to communicate effectively with clients, providers should use only medical terminology when discussing sexual anatomy.  
 True |  False  
**Answer:** False

**SECTION B: *Select two correct answers to each question. Place a tick mark ( ✓ ) in the left margin, next to the correct answers.***

1. Why are STIs/RTIs, excluding HIV, regarded as a public health priority?  
 a) Because all STIs/RTIs are incurable, even if they are treated promptly.  
**b) Because they have severe health consequences.**  
**c) Because treating them promptly can help in preventing the spread of HIV.**  
 d) Because STIs/RTIs are the Number One cause of death in our country.
2. Women are more vulnerable to STI/RTI infection than men because:  
 a) Pregnancy and breastfeeding lower a woman's resistance to STIs/RTIs.  
 b) Women are often anemic.  
**c) Semen stays in contact with the vaginal wall for a long time.**  
**d) Women have less power to negotiate safer sex.**
3. Which of the following consequences may result if STIs/RTIs are not treated?  
 a) Women may develop breast cancer.  
**b) Women may become infertile.**  
**c) Men may become infertile.**  
 d) Men may develop brain tumor.
4. Which are the most common signs of STIs/RTIs?  
**a) Genital ulcers.**  
**b) Genital discharge.**  
 c) Generalized swelling of the lymph nodes.  
 d) Loss of weight.
5. The two main elements of STI/RTI control are:  
**a) Case management.**  
 b) Legalizing prostitution.

- c) **Prevention.**
  - d) Providing laboratory diagnosis at all clinics.
6. The disadvantages of syndromic management include which of the following?
- a) **There is a potential for the over-use of antibiotics.**
  - b) Patients must wait for treatment.
  - c) It avoids wrong treatment since all possible RTIs causing signs and symptoms are treated at once.
  - d) **It does not work well for vaginal discharge.**
7. A young woman who has come to you with a vaginal discharge is at a high risk for STIs. Before prescribing medication for her, what is most important for you to know from her?
- a) **If she has multiple partners.**
  - b) Whether she can afford the medication.
  - c) **Whether she is pregnant or breastfeeding.**
  - d) When was her last menstrual period?
8. Education about sexual health for girls and boys:
- a) **Helps in preventing unwanted pregnancy.**
  - b) **Delays the age of onset of sexual activity.**
  - c) Encourages early sexual activity.
  - d) Increases unsafe abortion.
9. Which of the following are open-ended questions?
- a) **Tell me about your symptoms.**
  - b) Is the discharge milky or clear?
  - c) Did you use a condom the last time you had sex?
  - d) **What does the pain feel like?**

**SECTION C: *Select only one answer. Place a tick mark ( ✓ ) in the left margin, next to the ??? correct answer.***

1. Which of the following contributes to the rapid spread of STIs/RTIs?
- a) Lack of sufficient laboratory facilities for diagnosis.
  - b) Poor hygiene.
  - c) Lack of effective drugs.
  - d) **High-risk sexual behavior.**
2. In women, the signs and symptoms of STIs/RTIs are often:
- a) More easily recognized than in men.
  - b) **Less reliable indicators of disease than in men.**
  - c) Less likely to become serious than they are in men.
  - d) More likely to affect older women.
3. When a patient complains of symptoms of STIs/RTIs, the following examination is ideal:
- a) A general physical examination.
  - b) A genital examination.
  - c) **Both general physical and genital examinations.**
  - d) Neither is necessary when using a syndromic approach for STI/RTI management.

4. Examination for urethral discharge in men should be done:
- Without retracting the foreskin in uncircumcised men.
  - By asking the patient to urinate before the examination.
  - By milking the penis if you do not see any discharge.**
  - By asking the patient to wipe off his penis before you examine him.
5. The main causes of urethral discharge are:
- Syphilis and gonorrhoea.
  - Herpes simplex and chancroid.
  - Gonorrhoea and chlamydia.**
  - Chlamydia and syphilis.
6. A woman has cervical mucopurulent discharge and lower abdominal pain with no rebound tenderness or guarding. Which of the following is correct?
- She should be referred immediately to a surgeon.
  - She should be treated for PID.**
  - Trichomonas vaginalis is probably the causative organism.
  - She is unlikely to have complications unless she is pregnant.
7. **Genital ulcer disease is important because:**
- It is a major cause of infertility.
  - It may facilitate the spread of HIV.**
  - It often causes impotence in men.
  - It is usually associated with another RTI.
8. Which of the following laboratory tests is most useful for STI/RTI control in developing countries?
- Screening tests for syphilis such as RPR or VDRL test.**
  - Gram stain for gonorrhoea.
  - Urine LED (leukocyte esterase dipstick) for white blood cells.
  - Gonorrhoea culture.
9. A person infected with chancroid will often have:
- Genital ulcers which come and go spontaneously over many months.
  - Genital ulcers that progress, causing extensive tissue damage if not treated.**
  - A genital ulcer that lasts one or two weeks and then resolves completely on its own.
  - Multiple, painful vesicles filled with clear fluid.
10. A young female sex worker comes to you with vaginal discharge. She says she has had various STIs/RTIs several times in the past. Which of the following is the most appropriate action to take?
- Find out what she knows about STIs/RTIs.**
  - Tell her to find other work.
  - Warn her that she might have a STI/RTI.
  - Avoid topics that might embarrass her.
11. Using the enhanced syndromic approach to STI/RTI management, providers diagnose and treat infections based on:
- The results of laboratory tests.
  - Classifications that have been developed on the basis of client symptoms and clinical signs.
  - Only the clinical signs found upon physical examination.
  - All of the above.**

12. Syndromic management is of limited utility in clients who present with the following syndrome:
- Vaginal discharge.**
  - Genital ulcers.
  - Scrotal swelling.
  - Urethral discharge.
13. In men, urethral discharge can be a sign of:
- Chlamydia.
  - Gonorrhoea.
  - Trichomoniasis.
  - All of the above.**
14. Swelling or pain in the scrotum can be caused by:
- Chlamydia.**
  - Hepatitis C.
  - Yeast infection.
  - All of the above.
15. Which of the following questions may help you assess a person's risk of getting or giving a STI/RTI?
- Does your partner live away from home?
  - Are you over 30 years old?
  - Do you know anyone with AIDS?
  - Have you had a new sexual partner in the past three months?
  - Have you ever had a STI?
  - b, c and e.
  - a, d, and e.**
16. Hepatitis B, hepatitis C and HIV infection can be transmitted:
- Through unprotected sexual intercourse.
  - Through shared needles, razors, toothbrushes, skin-cutting tools, or tattooing instruments.
  - From mother to child during pregnancy and delivery.
  - All of the above.**
17. The following are all good ways of preventing STIs/RTIs in married women having a monogamous relation, except:
- Making sure that STI/RTI services are available to their husbands.**
  - Outlawing prostitution.**
  - Promoting widespread condom use.
  - Giving women the skills to negotiate safer sex.
18. Which of the following is a critical component of STI/RTI management?
- Condom promotion.
  - Partner notification.
  - Counseling and education.
  - All of the above.**

## **MODULE 2**

# **PUBLIC HEALTH IMPORTANCE OF STIs/RTIs**

## MODULE 2

### Public health importance of STIs/RTIs

#### Learning Objectives:

At the end of this module, the participants will be able to:

1. Describe the impact of STIs/RTIs on individuals and the community
2. Discuss the basic epidemiology of STIs/RTIs from a global, country and regional perspective
3. Identify the major factors contributing to the spread of STIs/RTIs
4. Describe the need for the prevention and management of STIs/RTIs
5. Identify the challenges to STI/RTI prevention and management and ways to meet them

#### Materials:

- Overhead/LCD projector
- PowerPoint slides for the session
- Flip charts
- A flip chart with a figure of three concentric circles drawn on it (see Session 2)
- Marker pens

#### Preparation by facilitator:

## Module outline

Session No.	Topic	Methodology
1	Introduction to Module 2	Interactive presentation and discussion
2	Basic terms used in STI/RTI management	
3	Epidemiology of STIs and RTIs: Global and country perspective	
4	Factors contributing to the spread of STIs/RTIs	
5	Impact of STIs/RTIs: Need for prevention and management	
6	Challenges to STI/RTI prevention and management	

### Introduction

The purpose of this module is to help participants to understand the magnitude and urgency of the STI/RTI problem in India and in their own state or region. It also emphasizes the public health aspects of STIs/RTIs including basic epidemiological facts. It is important for the facilitator to assist the participants to relate the STI/RTI problem to the dreaded complications of these conditions as well as its link with HIV/AIDS.

# SESSION 1

## Introduction to Module 2

### Objective:

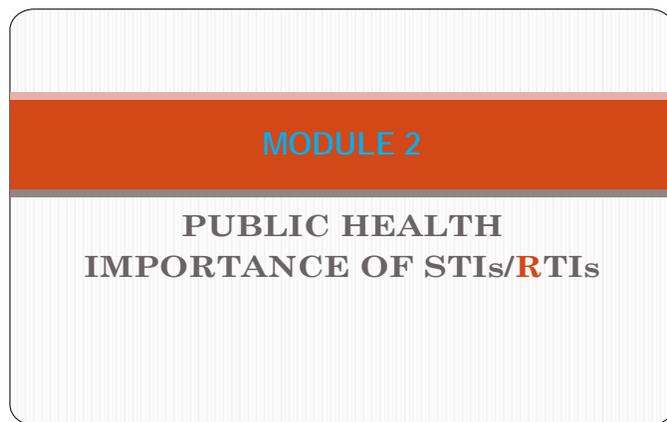
At the end of this session, the participants will be able to:

- Provide an overview of the module including its objectives

Show Slide 1 and say: “In this module, we are going to discuss various aspects of the STIs/RTIs prevalent in our country. These are: basic facts about STIs/RTIs, complications due to untreated or inadequately treated infections, their link with HIV, and diagnostic tools including clinical skills and laboratory tests.”

Explain that besides treating STIs/RTIs, client education, counseling and community prevention with a focus on special high-risk groups are key components of a comprehensive approach to STI/RTI management.

### Slide 1



Show Slide 2 and present the objectives of Module 2. Reaffirm that the purpose of this session is to provide an overview of the STI/RTI problem; specific information and skills development will be taken up in later modules.

Remind and encourage the participants to put questions/suggestions, if any, in the *Mailbox* after the completion of each module.

## Slide 2

### **OBJECTIVES: MODULE 2**

- Describe the impact of STIs/RTIs on individuals and the community
- Discuss the basic epidemiology of STIs/RTIs from a global, country and regional perspective
- Identify the major factors contributing to the spread of STIs/RTIs
- Describe the need for the prevention and management of STIs/RTIs
- Identify the challenges to STI/RTI prevention and management and ways to meet them

## SESSION 2

### Basic terms used in STI/RTI management

#### Objective:

At the end of this session, the participants will be able to:

- Define STIs, RTIs and the basic terms used in STI/RTI management

Ask the participants: “What are RTIs? What are STIs? Are they different?”

Let 3-4 participants respond. Appreciate correct responses.

Now, show Slide 3 and explain the definitions by saying that all RTIs are not necessarily transmitted by the sexual mode. They could be transmitted by other means as we shall see in subsequent sessions.

#### Slide 3

#### DEFINITIONS

- **Reproductive Tract Infections (RTIs):**  
Any infection of the reproductive tract in males and females
- **Sexually Transmitted Infections (STIs):**  
Infections caused by germs such as bacteria, viruses or protozoa that are passed from one person to another mainly through sexual contact

#### What are Reproductive Tract Infections (RTIs)?

The term RTI refers to any infection of the reproductive tract. In women, it includes infections of the external genitals, vagina, cervix, uterus, fallopian tubes, and/or ovaries. In men, RTIs involve the penis, testes, scrotum, and/or prostate.

## What are Sexually Transmitted Infections (STIs)?

STIs are infections caused by germs such as bacteria, viruses, or protozoa that are passed from one person to another through sexual contact.

Explain both definitions and clarify that RTIs as well as STIs can occur in both males and females.

Show Slide 4 and provide examples of RTIs in men and women.

### Slide 4

#### RTIs

- **RTIs in both men and women include:**
  - STIs
- **RTIs in women also include:**
  - Disruption of normal vaginal flora (candidiasis and bacterial vaginosis)
  - Postpartum and postabortion infections
  - Infections following procedures (e.g. IUD insertion)
- **RTIs in men also include:**
  - Prostatitis and epididymitis

Now, ask the group what they understand by HIV and AIDS. Again, appreciate participants who give correct and complete responses. Show Slide 5 and repeat the correct responses.

### Slide 5

#### HIV AND AIDS

- HIV
- AIDS
- HIV is an STI
- Transmitted through **the** same behaviour (85% sexual route)
- Risk of STI = Risk of HIV

## What are HIV and AIDS?

HIV stands for **H**uman **I**mmunodeficiency **V**irus, a retrovirus transmitted from an infected person through unprotected sexual intercourse, by exchange of body fluids such as blood, or from an infected mother to her infant. AIDS stands for **A**cquired **I**mmunodeficiency **S**yndrome. AIDS is the stage of HIV infection that develops some years after a person has been infected with HIV. Since HIV is a STD and is transmitted through the same behavior that transmits other STIs, whenever there is a risk of STI, there is a risk of HIV infection as well (because almost 85% of HIV is known to be transmitted by the sexual route).

Now, pose a question to the group: "Some people use the term "STD" and others use "STIs". What would you prefer to use and why?"

Let 2-3 participants respond. If they respond correctly, repeat their answers to help reinforce the information. If you do not get a correct response, clarify that "STIs" is a better description as it includes all infections, both symptomatic and asymptomatic. The term "STD" denotes the full-blown disease but does not represent "asymptomatic infections".

Explain that from the standpoint of public health, it is essential that we take care of both symptomatic as well as asymptomatic infections in the community to help prevent these conditions in the long run.

## STDs vs STIs

The term "STDs" stands for **S**exually **T**ransmitted **D**iseases. These are infections caused by germs such as bacteria, viruses or protozoa that are passed from one person to another through sexual contact. The term "**S**exually **T**ransmitted **I**nfections" (STIs) is used in place of STDs to indicate that infections do not always result in a disease. We consider these terms interchangeable in this training programme and will use the term "STI" for "STD" for the sake of simplicity.

Now, say: "You must have heard the term, "safe sex". What does it mean?"

Let 2-3 participants respond. Repeat the correct response clarifying that safe sex refers to managing a sexual act in such a way as to prevent both pregnancy and the transmission of sexually transmitted infections.

### What is safer sex?

Safer sex refers to those practices that allow couples to reduce their chances of getting pregnant as well as of transmitting a STI. Generally, safer sex practices prevent contact with genital sores as well as the exchange of body fluids such as semen, blood and vaginal secretions.

#### Exercise

Next, take a flip chart with three concentric circles drawn on it as shown in the figure below. The outermost circle stands for RTIs, the middle one for STIs, and the innermost for HIV/AIDS.

Starting with the outer part of the outermost circle (representing RTIs), ask the participants to name as many RTIs as they can. Write the names on the flip chart on the outer side of the RTI circle. Complete the list using the content material .

Now, working inwards, ask the participants to name STIs. Write these names beside the

## SESSION 3

### Epidemiology of STIs/RTIs: Global and country perspective

#### Objective:

At the end of this session, the participants will be able to:

- Discuss the basic epidemiology of STIs/RTIs from a global and country perspective

Say: “Now, let us discuss the extent of the STI/RTI problem in the world and in India. Before that, let us recall the definitions of two simple terms that we have studied during our basic medical education course.”

Discuss the terms ‘prevalence’ and ‘incidence’ by giving illustrative examples of STIs/RTIs. Show Slide 6 and summarize, explaining the meaning of the two terms.

SI

#### DEFINITIONS

- **Incidence**
  - New cases in a defined population in a specific time period
- **Prevalence**
  - Total cases (new and old) in a defined population **at a specific point in time**

#### What is prevalence?

Prevalence measures how much of some disease or condition there is in a population at a particular point in time. For example: “10% prevalence of chlamydia among pregnant women in a given population at a particular point in time” means that “10% of all pregnant women in the given population have chlamydial infection (both new and old cases) at that particular point in time.

## What is incidence?

Incidence measures the rate of occurrence of new cases of a disease or condition in a population during a specified time period (usually a year). For example, the incidence of chlamydia in India in 2007 could be calculated by finding the number of new cases of chlamydia registered during 2007 and dividing that number by the population of India. As this incidence rate would be very small, the incidence rate is usually expressed as the number of new cases per 100,000 people.

Now, ask the participants to guess the number of STI cases worldwide and in India. After taking 2-3 responses, present WHO estimates of global and regional incidence and prevalence of curable STIs/RTIs by showing Slide 7.

Example: As per WHO estimates, about 340 million new curable STI/RTI cases occur globally, each year.

### Slide 7

#### **SITUATION IN THE WORLD**

- 340 million new cases of curable STIs every year
  - 75-85% in developing countries
- 10 % adults newly infected with curable STIs
  - 12 million new cases of syphilis
  - 62 million new cases of gonorrhoea
  - 90 million new cases of chlamydia
  - 176 million new cases of trichomoniasis

Now, show Slide 8 and present the local statistics on STI/RTI trends in India.

## Slide 8

### SITUATION IN INDIA

Prevalence of **suggestive symptoms** of STIs/RTIs

- Women: 23 – 43%; Men: 4 – 9%
- 6% of men and 12% of women attending OPDs found to be having symptoms suggestive of STI/RTI (ICMR, 2005; multi-centric study, NIRRH, Mumbai)

STI clinic data indicate:

- Syphilis: 12.6 – 57% ; Chlamydia: 20-30%
- Chancroid: 9.9 – 34.7% ; Gonorrhoea: 8.5 – 23.9%

Hospital-based studies among men indicate:

- HSV : 3 –14.9%
- HPV: 4.9 –14.3%

Community-based **laboratory-supported** STI/RTI prevalence study,2002 (ICMR-NACO)

- Prevalence of **STIs/RTIs**: 6% among adult population

#### Remember ...

- It would be ideal to get local statistics of STIs/RTIs from the State Directorate Office and the District MOH.
- Encourage participants to ask questions and raise concerns, if any.
- Encourage them to refer to various studies in India (see Annexure 1).

## SESSION 4

### Factors contributing to the spread of STIs/RTIs

#### Objectives:

At the end of this session, the participants will be able to:

- Describe the major factors contributing to the spread of STIs/RTIs
- Discuss why STIs/RTIs in women are different from STIs/RTIs in men

Initiate the discussion by asking the participants to name the major factors that contribute to the spread of STIs/RTIs in men and women.

The co-facilitator should write their responses on a flip chart.

After generating a list of about 5-6 factors, show Slide 9, compare and complete the participants' list. Explain each bullet point on the slide.

#### Slide 9 –

##### FACTORS CONTRIBUTING TO STI/RTI SPREAD

- Human behaviour – high-risk behaviour
- Lack of access to health care
- Lack of awareness about STIs/RTIs
- Migrant population
- Health care providers not adequately trained
- Poor medical services
- Hygiene and environmental factors
- Hormonal factors
- Socio-economic and other factors

Now, ask the participants to list various groups in the community who are at a high risk of contracting STIs/RTIs. If you do not get a spontaneous or expected response, name 1-2 high-risk community groups and encourage them to add to the list. After getting 3-4 responses, complete the discussion by showing the groups listed on Slide 10. Explain why each is a high-risk group.

## Slide 10

### HIGH-RISK AND VULNERABLE GROUPS

- Adolescent boys and girls
- Women who have multiple partners
- Sex workers and their clients
- IDUs
- Men and women who have to stay away from families for long
- Men having sex with men, including transgender individuals
- Partners of various high-risk groups
- Street children

Next, ask: “Which three major factors increase the risk of STI/RTI transmission in an individual?”

The expected answers could be: biological, behavioral and social factors.

Show Slide 11 and explain why and how each factor on the slide increases the risk of STI/RTI transmission.

## Slide 11

### FACTORS INCREASING RISK OF TRANSMISSION

- **Biological**
  - Age
  - Sex
  - Immune status
- **Behavioural**
  - Personal sexual behaviour
  - Other non-sexual personal behaviour
  - Even without any risk behaviour
- **Social**
  - Status of women in society
  - Sexual violence
  - Child marriages

Now, ask the participants: “Who are at a greater risk of contracting RTIs/STIs, men or women?”

Let 2-3 participants respond. Ask them why they think so.

With the help of Slide 12, explain why women are more vulnerable to ST/RT infections and why the management of STIs/RTIs can be more difficult in women than in men.

## Slide 12

### WHY ARE WOMEN AT A HIGHER RISK?

- **Biological differences**
  - Thin lining of vaginal mucosa
  - Larger exposed area
  - Genital fluids stay in contact for a longer time
  - Young women - immature genital tract, cervical ectopy
  - Symptoms - less reliable indicator
- **Use of vaginal douches**
- **Influence of hormonal contraceptives**
- **Different socio-cultural norms for men and women**

Conclude the discussion by emphasizing that health care providers need to pay special attention to vulnerable populations, high-risk groups, and women while providing STI/RTI services in their centres.

## SESSION 5

### Impact of RTIs/STIs: Need for prevention and management

#### Objective:

At the end of this session, the participants will be able to:

- Describe the impact of STIs/RTIs and understand the need for their prevention and management

Summarize the earlier discussion by saying: “So far, we have talked about the definitions of basic STI/RTI management terms; the extent of the problem in the world, India and our state, and the factors that contribute to the spread of STIs/RTIs. We have also discussed why women are at a higher risk of contracting these infections.”

Now ask: “Against the background of this information and from your own experience, can you tell us what makes STIs/RTIs an important public health problem in India?”

Write the responses on a flip chart.

#### Slide 13

##### **STIs/RTIs – A PUBLIC HEALTH PROBLEM**

- Major cause of ill health in country
- Cause serious complications in men and women
- Increase risk of HIV transmission
- Responsible for reproductive loss
- Increase cost to health system

#### Why STIs/RTIs are an important health problem

- STIs/RTIs are increasing and constitute one of the major causes of ill health in our country as well as in the world. About 6% of the adult population in India suffers from a STI/RTI. This accounts for about 40 million episodes every year.
- STIs/RTIs increase the risk of HIV transmission.
- STIs/RTIs, if untreated, cause serious complications, including infertility, in men and women.
- STIs/RTIs are responsible for reproductive loss: spontaneous abortion, ectopic pregnancy, still birth, prematurity, and neonatal infections.
- In Indian women, one of the serious consequences of STIs/RTIs, if left untreated or inadequately treated, is cervical cancer.

- STIs/RTIs affect the larger community.
- Social impact of infertility:
  - Mother-to-child transmission causing perinatal mortality, morbidity such as disabilities, and maternal loss resulting in orphaned children
  - Maternal mortality due to bad obstetric practices
  - Socioeconomic impact of AIDS
  - Cost to national productivity
  - Decreased life expectancy
  - Increased cost to health systems
  - Psychosocial problems

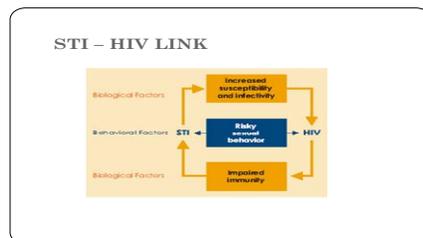
Say: “With the advent of HIV, the past two decades have seen STIs receiving greater attention. This is because of a strong and unique link between STIs and HIV.”

Ask the participants: “What is the link between STIs and HIV?”

Let 2-3 participants respond. Look for correct and complete responses.

Now, show Slide 14 and explain the link.

#### Slide 14



#### HIV: Situation in the world

- According to the UNAIDS Global Report 2006, regions with the largest number of HIV infections include Sub-Saharan Africa, Asia, and Latin America. These are also the regions with the highest prevalence of curable STIs.
- In 2006, approximately 39.5 million people (including 2.3 million children under the age of 15) were infected with HIV whereas approximately 4.3 million people were newly infected with HIV.
- An estimated 2.9 million deaths due to AIDS were reported in 2006.

#### HIV: Situation in India

In India -

- Approximately 2 to 3.1 million people are living with HIV (2007).
- There are 195 Category A and B districts with a high prevalence of HIV.

### TIPS FOR FACILITATORS

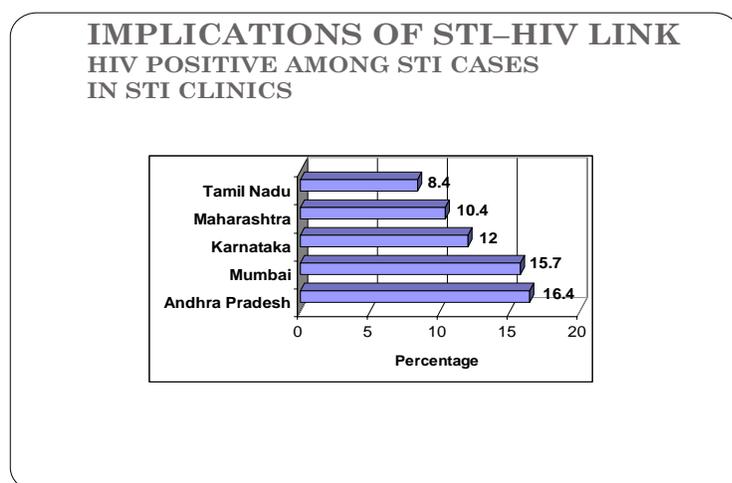
- Present the recent national statistics of HIV/AIDS. You can collect this from the Office of NACO.
- It is a good idea to get local statistics of HIV/AIDS from the State AIDS Control Society (SACS) and the District Hospital or MOH Office.
- Sentinel surveillance data are also available.

A person who has genital discharge due to chlamydial, gonorrhoeal, or trichomonas infection runs as much as four times the risk of contracting HIV from a sexual partner as a person who is not infected with one of these STIs. An ulcerative STI (such as genital herpes, syphilis, or chancroid) poses a significantly greater risk of HIV transmission per exposure than a non-ulcerative STI (such as gonorrhoea or chlamydia) because HIV can pass more easily through genital ulcers. However, STIs that do not cause ulcers also increase HIV risk because they increase the number of white blood cells (which have receptor sites for HIV) in the genital tract, and genital inflammation may result in damage that can allow HIV to enter the body more easily.

In addition, HIV infection may complicate the diagnosis and treatment of other STIs because HIV may change the pattern of the disease or the clinical manifestations of certain infections which, in turn, may affect laboratory tests. In people with HIV infection, STI symptoms may be more severe, the period of infectivity may be increased, and normal treatment regimens may fail.

Now, show Slide 15 and explain how STI prevalence affects the spread of HIV. Give examples of the high prevalence states shown on the slide and explain the impact.

### Slide 15



Finally, sum up the session, re-emphasizing the key issues mentioned on Slide 16.

**Slide 16**

**TO SUM UP ....**

- **STIs/RTIs** are a major public health problem in India
- They cause serious complications in men, women and the newborn
- They present a huge disease and financial burden to the country
- There is a strong link between STIs and HIV

## SESSION 6

### Challenges to STI/RTI prevention and management

#### Objective:

At the end of this session, the participants will be able to:

- List the challenges in to STI/RTI prevention and management and identify ways to meet them

Say: “In spite of the fact that STIs/RTIs and HIV are such a huge problem in our country, there are still many barriers to treatment-seeking. Some barriers are at the level of the provider and/or the health system while others are at the level of the client. Let us try to identify the barriers at both these levels so that we can make the best possible attempt to overcome them.”

Quickly divide the participants into two groups, and ask the groups to list at least 5 barriers each for the provider/institution and the client.

Allow 2 minutes for group work.

Ask one participant from each group to quickly read out the list prepared by her/his group.

Complete the discussion by comparing the lists with Slides 17 and 18.

#### Slide 17:

##### **BARRIERS – SYSTEM AND PROVIDER’S SIDE**

- Failure to recognize magnitude
- Over-emphasis on laboratory-based diagnosis
- Irrational use of drugs
- No standardized treatment regimen by all providers
- Less emphasis on patient education and counseling
- Specialized clinics carry stigma

## Slide 18

### BARRIERS – CLIENT’S SIDE

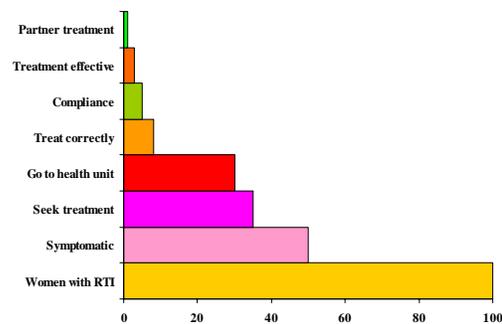
- Lack of knowledge
- Misconceptions
- Asymptomatic infections
- Not all clients seek treatment from trained providers
- Lack of knowledge about service sites
- Reluctance to discuss sexual matters
- Stigma attached to STIs
- Fear of judgmental attitude of providers
- Reluctance to undergo physical examination

Show Slide 19 of a Piot-Fransen model and explain how the number of individuals with STIs/RTIs gets reduced as we move upwards from the lowermost bar to the topmost, and only a few get cured of the infection/s.

Emphasize that we can change this picture if we work together to tackle STIs/RTIs by going beyond treatment and providing education and counseling to individuals and the community at large.

## Slide 19

### PROBLEMS IN MANAGEMENT OF STIs/RTIs: PIOT-FRANSEN MODEL



### The Piot-Fransen Model of STI/RTI Control

The Piot-Fransen model of STI/RTI management graphically sums up the problems in the treatment of STIs/RTIs. The model illustrates some of the obstacles to STI/RTI control. The lowermost bar represents all women with STIs/RTIs in a community while the subsequent bars show the number of individuals identified at each step. The difference between the bars illustrates lost opportunities for preventing STI/RTI transmission.

A comparison of the small topmost bar with the lowermost one shows the proportion of all people with STIs/RTIs in the community who are identified and correctly managed at health facilities. In the typical clinical approach to STI/RTI control, the contribution of clinical services is small. For example, suppose 100 women in your community have STIs/RTIs. Of these women, less than half are likely to have symptoms. Even among symptomatic women, however, perhaps only half will seek or have access to health care at a clinic. Thus, in this example, already less than one-quarter of the women with STIs/RTIs seek care from a qualified health worker.

Then, there are other obstacles:

- How many of the symptomatic women who come to your clinic are accurately diagnosed?
- Even when diagnosed correctly, do the women leave with effective medication and take all the prescribed medication?
- Finally, do women treated for a STI/RTI have their partners treated successfully at the same time to ensure that they are not re-infected?

These are some of the key issues to consider while deciding whether or not the STI/RTI services that you provide will make a difference in your community.

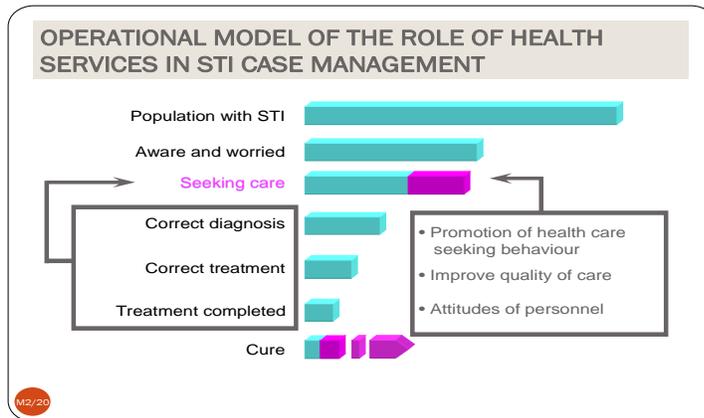
Improving STI/RTI case management at clinics expands the smallest bar resulting in higher cure rates among those who seek care. Nevertheless, it is apparent that improving services has its limits. Clients do not usually visit a health centre unless they have symptoms, and many do not visit even if they have symptoms. Moreover, even among those with symptoms, some choose to seek care from places other than clinics and hospitals. Self-treatment, direct purchase of antibiotics from pharmacists or drug peddlers, and consultation with traditional healers are among the many options available to an individual with STI/RTI symptoms.

In order to convince people to use clinic services, information about STIs/RTIs and the importance of prompt treatment must be available at the community level.

Now, show Slide 20 of a model presented by WHO, and explain by saying: "If strategies for improving health-seeking behaviour are implemented in the community, and supplemented by high-quality services and proper provider attitudes, more and more clients might seek STI/RTI services.

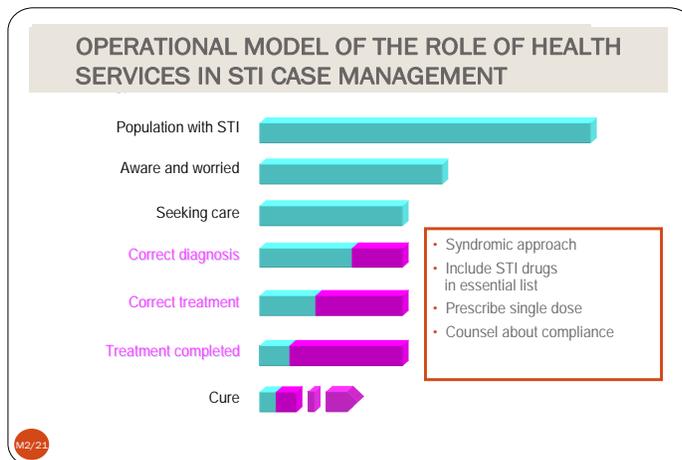
"High-quality services include correct and complete diagnosis and treatment that cures cases. Providing such services will motivate more clients to seek STI/RTI services."

Slide 20



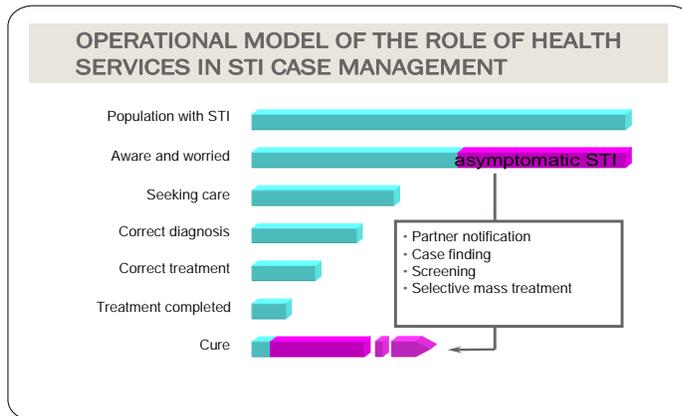
Next, show Slide 21 and explain that the use of the syndromic approach by health care centres will not only result in an increase in correct diagnosis and treatment at first visit but also in better client education and counseling. As a result, a higher proportion of clients will complete the treatment and get cured.

Slide 21



Now, show Slide 22 and clarify that the proper implementation of measures such as partner notification, screening for STIs/RTIs and selective mass treatment will result in increased detection and treatment of asymptomatic infections in the community.

**Slide 22**



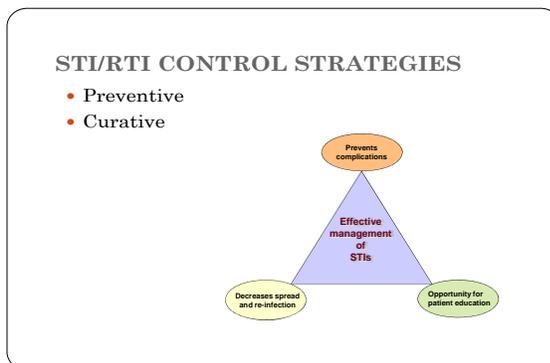
Wrap up the discussion on the Piot-Fransen model by saying: “Thus, there are definite strategies that health care providers can use to bring about a positive change in the situation shown in the Piot-Fransen model by offering high-quality STI/RTI services to needy population groups. We will discuss this aspect in subsequent modules and identify ways of contributing to these efforts.”

Next, tell the participants that it is important to use a two-pronged strategy to deal with STIs/RTIs. This comprises preventive as well as curative strategies.

Show Slide 23 and explain that a curative strategy is not just about providing pharmaceutical treatment but also includes client education and prevention of complications and re-infection.

Assure the participants that we will discuss each of these issues in detail in subsequent sessions to enable us to control STIs/RTIs in our town, state and country as a whole.

**Slide 23**



Finally, ask the participants to summarize the key issues discussed in the session and the key learning points that they have gathered as doctors providing STI/RTI services.

After taking a few responses, show Slide 24 and explain by saying: “Although, as doctors, we provide medical services to STI/RTI clients visiting our clinics, we must give equal importance to the preventive aspects of STIs/RTIs. This is because, since the advent of HIV, these infections have assumed a different and urgent dimension and are consuming the valuable resources of our health system.”

#### **Slide 24**

#### **IMPLICATIONS FOR US, DOCTORS**

- STI/RTI control needs both curative as well as preventive strategies working in tandem
- We (doctors) can play a major role in addressing either strategy
- We must keep in mind the strong link between STIs and HIV while managing STI/RTI cases

Annexure 1:

Table 1: Published Prevalence of Sexually Transmitted Infections in Men in India

	Prevalence ranges (%)								
	Bacterial STIs				Protozoal STIs	Viral STIs			
Study Population	Gonorrhoea	Chlamydia	Syphilis	Chancroid (Clinical diagnosis)	Trichomoniasis	Herpes simplex (Clinical diagnosis)	Human Papilloma Virus (Clinical diagnosis)	HbsAg (Hepatitis B surface antigen)	HIV (Human Immunodeficiency Virus)
<b>Community-based or convenience samples</b>									
Male subjects aged 15 to 45 years (1)	3.4	2.0	0.3	-	-	-	-	6.0	1.4
Male participants of a community education programme (2)	1.7	15	-	-	5.6	-	-	-	0.4
Transport and industrial workers (3)	2.1	-	0.8-4.4	-	-	-	-	-	-
<b>Facility-based</b>									
STD clinic patients (4-11)	8.5-25.9	20.0-30.0	12.6-57.0	16.1-34.7	-	3.0-14.9	4.9-14.3	-	2.0-7.4
Patients attending primary health care centers (3)	-	-	3.6	-	-	-	-	-	-
<b>Specific groups</b>									
Spouses of women with Candida and Trichomonas infections?? (13)	-	-	-	-	60.6	-	-	-	-

[Source: **Diverse realities: Sexually transmitted infections and HIV in India**

**S Hawkes<sup>1</sup> and K G Santhya<sup>2</sup>**

<sup>1</sup> Clinical Research Unit, London School of Hygiene & Tropical Medicine, London, UK

<sup>2</sup> Population Council India, New Delhi, India

*Sexually Transmitted Infections* 2002; **78**:31

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[http://sti.bmjournals.com/cgi/content/full/78/suppl\\_1/i31#T1](http://sti.bmjournals.com/cgi/content/full/78/suppl_1/i31#T1)

**Table 2: Published Prevalence of Sexually Transmitted Infections in Women in India**

Study Population	Prevalence ranges (%)								
	Bacterial STIs				Protozoal STIs	Viral STIs			
	Gonorrhoea	Chlamydia	Syphilis	Chancroid (Clinical diagnosis)	Trichomoniasis	Herpes simplex (Clinical diagnosis)	Human Papilloma Virus (Clinical diagnosis)	HbsAg (Hepatitis B surface antigen)	HIV (Human Immunodeficiency Virus)
<b>Community-based</b>									
Ever/currently married women (14-17)	0.0-4.2	0.5-28.7	0.2-8.8	-	4.3-27.4	-	11.8	-	-
Unmarried and married women (1, 20, 21)	0.3-3.9	5.2	0.2-10.5	-	0.8-14.0	-	-	4.8	2.0
<b>Facility-based and convenience samples</b>									
STD clinic patients (4,7,8,10,11,22)	1.3-10.4	-	29.3-43.3	-	-	4.0-15.4	6.7-15.6	-	1.2-13.6
Commercial sex workers (22-24)	4.9-16.5	-	30.0-63	-	-	-	0.5	-	49.9
Gynecological OPD patients (25-35)	1.0-5.5	0.2-31.3	4.4-5.6	-	0.4-26.0	0.3-25.0	0.6-42.4	-	0.0
Antenatal patients (3, 25, 36-39)	-	2.3	1.0-6.2	-	17.8	-	-	-	0.1-1.2
Gynecological patients with "vaginitis" complaints (40-42)	0.0-2.6	2.6-12.2	2.2	-	1.6-17.6	-	-	-	-
Gynaecological patients with "cervical erosion" (43-44)	-	3.0	-	-	-	-	-	-	-
Infertility & PID patients (45-48)	0.1-11.0	0.5-24.2	0.5	-	0.5	-	-	-	-
Acceptors of tubal ligation (48-49)	0.1-2.2	0.0-0.2	0.5-7.0	-	0.9	-	-	-	-

[Source: **Diverse realities: sexually transmitted infections and HIV in India**

**S Hawkes<sup>1</sup> and K G Santhya<sup>2</sup>**

<sup>1</sup> Clinical Research Unit, London School of Hygiene & Tropical Medicine, London, UK

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## Annexure 2: Complications of untreated STIs/RTIs

Disease	Complications/sequelae
Chlamydia	<i>In men:</i> Urethritis, epididymitis, Reiter's syndrome*, proctitis, infertility <i>In women:</i> Pelvic inflammatory disease (PID), ectopic pregnancy, infertility <i>Mother to infant:</i> Respiratory infection, pneumonia, eye infection.
Gonorrhoea	<i>In men:</i> Urethritis, epididymitis, urethral stricture, infertility <i>In women:</i> PID, ectopic pregnancy <i>Mother to infant:</i> Eye infection, joint infection, life-threatening blood infection
Trichomoniasis	<i>In men:</i> Urethritis, prostatitis, urethral stricture, infertility <i>In women:</i> Uncomfortable symptoms persist for years <i>Mother to fetus:</i> Low birth weight, prematurity
Syphilis	<i>In men &amp; women:</i> Complications of late syphilis like cardiovascular syphilis (heart disease, aortitis, aneurysm), neurosyphilis (brain damage, blindness), destructive lesions of the skin and bones, death. <i>Mother to fetus:</i> Spontaneous abortion, still birth or neonatal death
Chancroid	<i>In men &amp; women:</i> Slow and often incomplete resolution. Can lead to urethral fistulas in men, severe genital scarring in both
Herpes	<i>In men &amp; women:</i> Primary infection can affect central nervous system (CNS), causing stiff neck, headache, and abnormal sensitivity to light. Proctitis <i>In women:</i> Cervicitis <i>Mother to infant:</i> Infant can be infected at birth if mother has the episode
Lymphogranuloma venereum	<i>In men &amp; women:</i> Fibrous masses, scars, inguinal groove, fistula, chronic inflammation of lymph nodes, urethritis <i>In women:</i> Cervicitis

## **MODULE 3**

# **COMMON STIs/RTIs AND THEIR COMPLICATIONS**

# MODULE 3

## Common STIs/RTIs and their complications

**Learning Objectives:**

At the end of this module, the participants will be able to:

1. Identify the sites of occurrence of STIs/RTIs in females and males
2. List and describe the signs and symptoms of common STIs/RTIs
3. Describe various ways of classifying STIs/RTIs
4. List the complications of STIs/RTIs

**Materials:**

- Overhead/LCD projector
- PowerPoint slides for the session
- Blank flip charts
- Two flip charts with drawings of the male and female reproductive system.
- 20 copies of the case study hand-out (for Session 4)
- Marker pens

**Module outline**

Session No.	Topic	Methodology
1	Introduction to Module 3	Interactive presentation and discussions
2	STIs/RTIs and their signs and symptoms	
3	Classification of STIs/RTIs	
4	Complications of STIs/RTIs	

# SESSION 1

## Introduction to Module 3

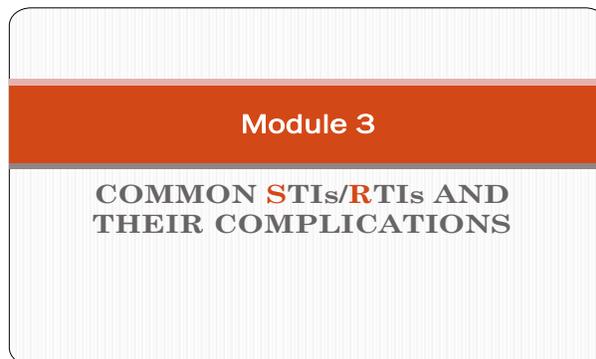
### Objective:

At the end of this session, the participants will be able to:

- Provide an overview of the module including its objectives

Show Slide 1 and tell the participants that this module will cover STIs/RTIs that commonly occur in men and women, their signs and symptoms, and ways of classifying them. Finally, we will look at the complications that can occur in men, women and neonates if these infections are not treated.

### Slide 1



Now show Slide 2 and explain each objective of the module

### Slide 2

**OBJECTIVES: MODULE 3**

- Identify the sites of occurrence of **STIs/RTIs** in females and males
- List and describe the signs and symptoms of common **STIs/RTIs**
- Describe various ways of classifying **STIs/RTIs**
- List the complications of **STIs/RTIs**

## SESSION 2

### STIs/RTIs and their signs and symptoms

**Objectives:**

At the end of this session, the participants will be able to:

- List the different STIs/RTIs in males and females
- List and describe the signs and symptoms of common STIs/RTIs

Before the session begins, arrange two flip charts on stands, facing the class. Write “Male” at the top of one flip chart, and, “Female”, at the top of the other. Divide each flip chart vertically into two columns. On both flip charts, write “STIs” at the top of one column and “RTIs” at the top of the other.

Begin the session by saying: “Now, we are going to discuss different types of STIs and RTIs in males and females.”

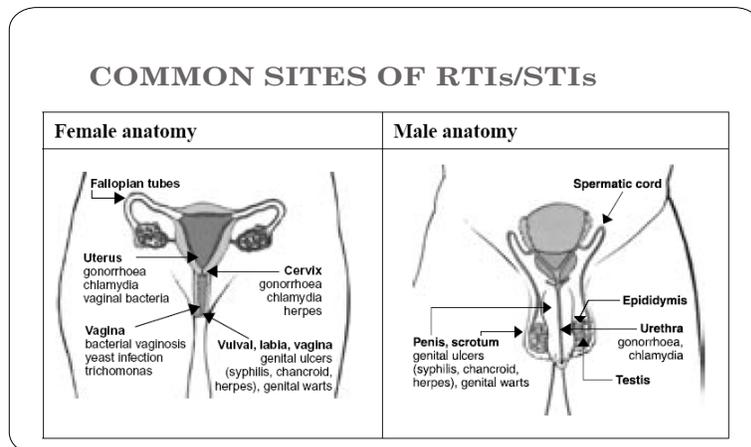
Tell the participants that there are two flip charts in front of them. Invite them to come forward, one by one, and write the name of one STI and one RTI on any one flip chart.

Involve as many participants as possible in listing STIs/RTIs.

After all of them have participated in the activity, show Slide 3 which depicts the female and male reproductive systems and the sites where STIs/RTIs commonly occur.

Next, show Slide 4 which presents the commonly occurring STIs/RTIs in women and men. Compare the participants’ lists with it and complete the lists.

**Slide 3**



## Slide 4

### COMMON STIs/RTIs

- Gonorrhoea
- Chlamydia
- Syphilis
- Chancroid
- Genital herpes
- LGV
- GV
- Trichomoniasis
- Genital warts
- Candidiasis
- HIV
- HBV
- Genital scabies
- Pubic lice
- Molluscum contagiosum
- Bacterial vaginosis

Now, ask the participants to think about some signs and symptoms suggestive of STIs/RTIs in men and women. Tell them not to consider a specific STI, but to think of the signs and symptoms that would make one suspect a STI.

Suggest that they list these separately for men and women. Ask half the participants to make a list for men and the other half, for women.

Allow 5 minutes for listing and take their responses. Request your co-facilitator to note the responses on a flip chart, separately for men and women.

## Slide 5

### SYMPTOMS AND SIGNS OF STIs/RTIs IN MEN

- Urethral discharge/ Burning or pain during micturition or urination / frequent urination
- Genital itching
- Inguinal swelling / scrotal swelling / swollen and painful testicles
- Blisters or ulcers on the genitals, anus or surrounding area, mouth, lips
- Itching or tingling in genital area
- Warts on genitals, anus or surrounding area
- Fever, body ache, muscle ache, dark-coloured urine, jaundice etc.

## Slide 6

### SYMPTOMS AND SIGNS OF STIs/RTIs IN WOMEN

- Unusual vaginal discharge
- Genital itching
- Abnormal and / or heavy vaginal bleeding
- Dyspareunia
- Lower abdominal pain (pain below the belly button, pelvic pain)

## Slide 7

### SYMPTOMS AND SIGNS OF STIs/RTIs IN WOMEN contd.....

- Blisters/ulcers on the genitals, anus or surrounding area, mouth, lips
  - Burning during micturition
  - Itching or tingling in genital area
  - Warts on genitals, anus or surrounding area
  - Fever, body ache, muscle ache, dark-coloured urine, jaundice etc.
-

## SESSION 3

### Classification of STIs/RTIs

#### Objective:

At the end of this session, the participants will be able to:

- Describe various ways of classifying STIs/RTIs

Tell the participants that STIs/RTIs can be classified in three different ways namely, according to the causative organisms (bacterial, viral, protozoal etc.), by their mode of transmission, and by the most common presenting symptoms.

Show Slide 8 and explain, giving 1-2 examples of each method of classification. Tell the participants that we will now discuss each method in detail.

#### Slide 8

##### WAYS OF CLASSIFYING STIs/RTIs

- According to causative organisms
- According to mode of transmission
- According to most common presenting symptoms

Take up the first method of classification based on the causative organisms. Ask the participants to give two examples of each category of organism — bacterial, viral, mixed etc. Show Slide 9 and provide more examples.

#### Slide 9

##### CLASSIFYING STIs/RTIs BY CAUSATIVE ORGANISMS

- **Bacterial:**
  - Gonorrhoea, Chlamydia, Syphilis
- **Viral:**
  - HSV, HPV, HIV, HBV
- **Protozoal:**
  - Trichomoniasis
- **Fungal:**
  - Candidiasis
- **Mixed:**
  - PID, Epididymitis

Now, ask the participants if they can tell the group how STIs/RTIs can be classified according to the mode of transmission.

Let 2-3 participants respond. Commend them if you get the desired response/s. Complete the discussion by showing Slide 10.

## Slide 1

### CLASSIFYING **STIs/RTIs** BY MODE OF TRANSMISSION

- **Endogenous infections:**
  - Examples: yeast infection, vaginosis
- **Sexually Transmitted Infections:**
  - Examples: gonorrhoea, chlamydia, syphilis
- **Iatrogenic Infections:**
  - Examples: PID following abortion or transcervical procedures

Next, tell the participants that the third way of classifying STIs/RTIs is according to the most common presenting symptoms.

Provide some examples such as urethral discharge, genital ulcer, inguinal bubo etc.

Emphasize that this is the most practical and simple way of classifying STIs/RTIs as it makes it easy for the provider to diagnose a case. As a result, the “National Technical Guidelines” also recommend this classification for defining various STI syndromes for syndromic management.

Conclude the session by assuring the participants that we will review this classification system in detail in the next module when we discuss syndromic management of STIs/RTIs

## SESSION 4

### Complications of STIs/RTIs

#### Objective:

At the end of this session, the participants will be able to:

- List the complications of untreated STIs/RTIs in males, females and neonates

Give a brief summary of what has been discussed so far. Say: "So far, we have discussed the body sites where STIs/RTIs can occur, common STIs and RTIs and ways of classifying them. Now, let us discuss the complications or consequences of STIs/RTIs when they are left untreated."

Encourage the participants by saying: "I am sure you have a fair idea about the complications of untreated STIs/RTIs."

Assuming that the participants would be seated in a scattered table arrangement, assign the following topics to different table groups.

- Complications of untreated STIs/RTIs in men
- Complications of untreated STIs/RTIs in women
- Complications of untreated STIs/RTIs in neonates

Allow 5 minutes for group discussion. Ask the groups to note as many complications as possible. Encourage them to think beyond complications of the reproductive system.

After 5 minutes, ask a representative of each group to present her/his group's findings to the larger group. Request your co-facilitator to list these on separate flip charts for each group.

If a topic has been assigned to more than one group, request the groups not to repeat what has already been mentioned by other groups. Or. ask each group to name only 3-4 complications.

After the findings of all the groups have been listed on flip charts, complete the lists by comparing them with Slides 12 to 15.

## Slide 12

### COMPLICATIONS IN MEN

- Urethral stricture
- Phimosis / paraphimosis
- Disfigurement of genitals
- Infertility
- Meningovascular / Cardiovascular complications (syphilis)
- Epididymitis
- Orchitis

## Slide 13

### COMPLICATIONS IN WOMEN

- Pelvic Inflammatory Disease (PID)
- Infertility
- Ectopic pregnancy
- Spontaneous abortion
- Stillbirth
- Low birth weight babies
- Increased susceptibility to opportunistic infections
- Cervical cancer
- Chronic pelvic pain

## Slide 14

### COMPLICATIONS IN NEONATES

- Ophthalmia neonatorum
- Sepsis
- Arthritis
- Meningitis
- Infant pneumonias
- Mental retardation
- Low birth weight

## Slide 15

### SYSTEMIC COMPLICATIONS

- Gastrointestinal: proctitis, proctocolitis, enteritis
- Renal: acute membranous glomerulonephritis
- Neurological: meningovascular involvement, tabes dorsalis, GPI
- Cardiovascular: myocarditis, aortitis, aneurysms
- Ophthalmic: aveitis, iritis, choroidoretinitis
- Musculoskeletal: osteomyelitis, arthritis, myopathy
- Septicemia

Finally, show Slide 16 and summarize the discussion, emphasizing the following:

- STIs/RTIs occur in both men and women and infect the reproductive organs.
- STIs/RTIs can be classified according to the causative organism and mode of transmission. However, classifying them by their presenting symptoms is more effective as it helps providers to make a quick and easy diagnosis and manage STIs/RTIs syndromically.
- There are many complications of STIs/RTIs in men, women and neonates. Therefore, providers must not waste any opportunity of treating STIs/RTIs at the first visit.

## Slide 16

### TO SUM UP .....

#### **STIs/RTIs**

- Occur both in men and women; infect the reproductive organs
- Classified according to the causative organism and mode of transmission
- Classification by presenting symptoms is practical for providers for easy and quick syndromic diagnosis and management of STIs
- Besides HIV infection, many other dreaded complications of STIs in men, women and neonates
- Therefore, health care providers must not waste any opportunity of treating STIs/RTIs at the first visit

**MODULE 4**

**APPROACHES TO STI/RTI  
MANAGEMENT**

# MODULE 4

## Approaches to RTI/STI management

### Learning Objectives:

At the end of this module, the participants will be able to:

1. Define the term "STI/RTI case management"
2. List and describe the critical steps of STI/RTI management
3. Describe and compare the three main approaches to STI/RTI management
4. Explain the relevance of the syndromic approach in current health care settings in India
5. Classify different STIs/RTIs according to syndromes
6. Demonstrate the use of flowcharts using case studies

**Materials:**

- Overhead/LCD projector
- PowerPoint slides for the session
- Flip charts
- Marker pens
- 15-20 cards, each with a case study of syndromic management written on it (from the case study exercises given in Session 4).

### Module outline

Session No.	Topic	Methodology
1.	Introduction to Module 4 & Critical steps of STI/RTI case management	Interactive presentation and group work
2.	Approaches to STI/RTI management	
3.	Classification of STIs/RTIs by syndromes	
4.	Use of flowcharts in STI/RTI management	

### **Introduction**

Traditionally, doctors and other health providers have been trained to diagnose STIs/RTIs based on the results of laboratory tests that identify the specific organism causing the infection (etiological diagnosis). Another approach is to identify STIs/RTIs based on the provider's judgment of the patient's signs and symptoms (clinical diagnosis). The limitations of these methods, particularly in primary health care settings, prompted the development of the syndromic approach which uses symptoms and easily identifiable physical signs to diagnose and treat patients for all possible STIs/RTIs that may cause the syndrome rather than for specific STIs/RTIs. Syndromic management should be used only when a patient presents with a STI/RTI complaint and not for screening for STIs/RTIs because it is not so accurate.

This module presents an overview of the main approaches to STI/RTI management including syndromic management which has been widely adopted and proven useful for most syndromes. However, vaginal discharge is an exception because it is poorly correlated to the major causes of cervicitis namely, gonorrhoea and chlamydia.

## SESSION 1

### Introduction to Module 4 and Critical steps of STI/RTI case management

#### Objectives:

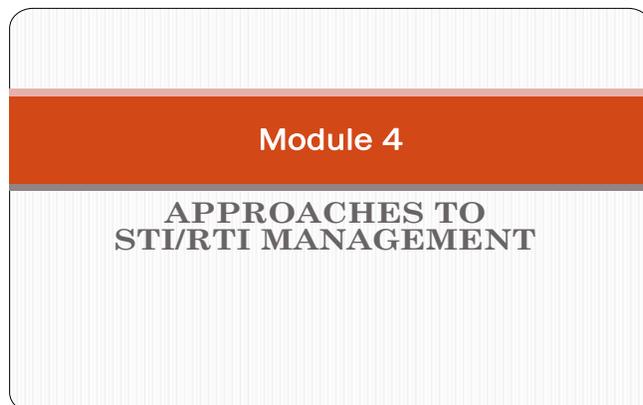
At the end of this session, the participants will be able to:

- Provide an overview of the module including its objectives
- Define the term "STI /RTI case management"
- List and describe the critical steps of STI/RTI management

Begin the session by showing Slide 1.

Say: "In this module, we are going to talk about the key steps of STI/RTI management and compare the main approaches used to manage STIs/RTIs with a view to identify the most relevant approach for a typical clinical setting in a primary health care centre. We will also discuss the classification of STIs/RTIs by syndromes, and the use of flowcharts for managing STIs/RTIs."

#### Slide 1



Now, show Slide 2 and explain the objectives of the module.

## Slide 2

### OBJECTIVES: MODULE 4

- Define the term "STI/RTI case management"
- List and describe the critical steps in STI/RTI management
- Describe and compare the three main approaches to STI/RTI management.
- Explain the relevance of the syndromic approach in current health care settings in India
- Classify different STIs/RTIs according to syndromes
- Demonstrate the use of flowcharts using case studies

Say: "Now , can you tell me what the three principles of comprehensive STI/RTI management are?"

The expected responses should include: correct diagnosis, correct and complete treatment, patient education, and partner treatment.

Show Slide 3 after taking the participants' responses, and state the three principles of STI/RTI case management.

## Slide 3

### PRINCIPLES OF STI/RTI CASE MANAGEMENT

- Correctly diagnosing and treating symptomatic patients
- Providing patient education and partner management
- Preventing re-infection

Next, present a case study and ask the participants to write a prescription for the case. Give them 10 minutes to complete the prescription. Audit the prescriptions. You will find that most participants prescribe differently. Tell them about the importance of standardizing the treatment and reinforce the need for standardized treatment regimens.

Now, pose a question to the group: "What are the different steps involved in the management of any clinical case?"

The expected responses should include the steps listed on Slide 4.

#### Slide 4

##### **STEPS OF CLINICAL CASE MANAGEMENT**

- History taking
- Clinical examination
- Laboratory tests
- Diagnosis
- Treatment
- Advice and counseling
- Follow up

## SESSION 2

### Approaches to STI/RTI management

#### Objectives:

At the end of this session, the participants will be able to:

- Describe and compare the three main approaches to STI/RTI management
- Explain the relevance of the syndromic approach in current health care settings in India

Begin the discussion by telling the participants that there are three main approaches to the management of STIs/RTIs. Ask: “Can anyone name them?”

The expected responses would be: traditional clinical, laboratory-assisted, and syndromic approaches.

Show Slide 5 naming the three approaches.

#### Slide 5

##### APPROACHES TO STI/RTI CASE MANAGEMENT

- Traditional clinical approach
- Laboratory-assisted approach
- Syndromic **management** approach

Say: “Now, let us discuss these approaches and find out which one works best for STI/RTI management and why.”

Start the discussion with the traditional clinical approach.

Remind the participants of the 7 steps used in traditional clinical case management, and ask them what they understand by the traditional clinical approach and the steps involved in it.

Take their responses. The expected responses are: history, physical examination, clinical diagnosis, treatment and patient education/advice, and counseling.

If you do not get complete responses, clarify using the 7 steps. Emphasize that in the traditional clinical approach, the doctor uses her/his clinical judgment to make a diagnosis. Laboratory tests are not involved.

Now, ask: "If these are the steps of traditional clinical case management, what are its advantages and limitations?"

Start with the advantages and follow with the limitations.

Show Slides 6 and 7 and complete the discussion.

### Slide 6

#### TRADITIONAL CLINICAL APPROACH: ADVANTAGES

- Simple
- Inexpensive
- Can be used in any setting
- Immediate diagnosis.
- Immediate treatment.
- No lab expense

### Slide 7

#### TRADITIONAL CLINICAL APPROACH: LIMITATIONS

- Diagnosis is often incorrect or incomplete (especially in mixed infections)
- More than one STI is frequently present at the same time whereas the focus in clinical diagnosis is on diagnosing a single cause
- Asymptomatic infections **cannot** be diagnosed

Summarize the discussion, emphasizing that in the traditional clinical approach the doctor uses her/his clinical judgment to make a diagnosis. Laboratory tests are not involved.

Now, move on to a discussion on the laboratory-assisted approach.

Ask the participants about the steps involved in the laboratory-assisted approach. The expected response should be; In addition to the steps of the traditional clinical approach, the doctor uses laboratory tests to arrive at a diagnosis and provides treatment for the specific organism identified by the laboratory test.

## Slide 8

### LABORATORY-ASSISTED APPROACH: ADVANTAGES

- Possible to get an exact diagnosis using laboratory tests
- Avoids over-treatment
- Avoids wrong treatment
- May avoid antibiotic resistance
- Avoids the negative consequences of telling someone s/he has a STI if s/he does not

Repeat the same process for listing the limitations of the laboratory-assisted approach and show Slide 9 to complete the participants' list.

## Slide 9

### LABORATORY-ASSISTED APPROACH: LIMITATIONS

- Expensive
- Trained laboratory technicians are needed
- Infrastructure and supplies are needed
- Patient must return for test results
- Patient must wait for treatment
- Asymptomatic infections can also be detected
- All STIs **cannot** be identified by laboratory tests as each test has **its** own sensitivity and specificity

Close the discussion on the laboratory-assisted approach by saying that laboratory-based diagnosis is considered as the "gold standard". However, it has many limitations such as unavailability, high cost, waiting for laboratory test results to start treatment etc.

Now, take the discussion forward to syndromic management. It is expected that many participants having attended earlier round/s of training, would know about it.

Ask them to list the steps involved in syndromic management which should include: identification of the syndrome using flowcharts and treatment of the syndrome rather than any specific infection. Show Slide 10

## Slide 10

### SYNDROMIC MANAGEMENT APPROACH

- Diagnosis is based on the identification of **syndromes** which are a combination of the symptoms the client reports and the signs the health care provider observes
- The recommended treatment **is** effective for all the diseases that could cause the identified syndrome
- Provides single-dose treatment as far as possible
- Comprehensive: it includes patient education **and** counseling

Now, ask the participants to enumerate the major advantages of syndromic management. After taking 4-5 responses, show Slide 11 and complete the list.

## Slide 11

### SYNDROMIC MANAGEMENT: ADVANTAGES

- Fast—the patient is diagnosed and treated in one visit
- Highly effective for selected syndromes, especially **urethral** discharge and genital ulcer disease (GUD). Also good for lower abdominal pain/PID.
- Relatively inexpensive since it avoids use of laboratory **tests**
- No need for patient to return for lab results
- All possible STIs causing signs and symptoms are treated at once
- Scientifically tested in many part of the world
- Easy for health workers to learn and practice for patients
- Integrated into other primary health care services more easily
- Can be used by providers at all levels
- It standardizes treatment regimens

Follow a similar process for the limitations of syndromic management. Complete the discussion by showing Slide 12.

**Slide 12**

**SYNDROMIC MANAGEMENT:  
LIMITATIONS**

- Not useful in asymptomatic individuals
- Over-treatment if patient has only one STI that causes a syndrome
- Financial cost of over-treatment, side-effects
- Increases potential for creation of antibiotic resistance especially if full course is not completed
- Not effective in some cases such as vaginal discharge

After completing the discussion on the advantages and limitations of all the three approaches, request the participants to look at these approaches using the same steps that were discussed for traditional clinical case management, and identify the similarities and differences between them.

Show Slide 13 which gives a comparison of the three approaches.

Re-emphasize the underlined text under syndromic management such as picking up relevant flow charts, making syndromic diagnoses, and providing syndromic treatment.

Assure the participants that it is evident from the comparison table that basically, the steps involved in all the three approaches are similar. The only major difference lies in syndromic diagnosis and treatment.

**Slide 13**

**COMPARISON OF APPROACHES**

<b>Traditional clinical approach</b>	<b>Laboratory-assisted approach</b>	<b>Syndromic approach</b>
Interviews patient for symptoms	Interviews patient for symptoms	Interviews patient for symptoms <b><u>Picks the relevant flowchart</u></b>
Does a clinical examination	Does a clinical examination	Does a clinical examination for finding signs <b><u>Uses flowcharts as tools</u></b>
Uses clinical experience to identify symptoms and signs of a specific STI	Collects samples for testing / refers to laboratory for tests	<b><u>Syndrome identification</u></b>
Treats for the specific STI	Treats for STIs identified by the results of the laboratory tests	<b><u>Treats patient for the most common organisms responsible for that syndrome (usually 2-3 STIs)</u></b>
Educates patient for compliance and prevention, promotes condoms and emphasizes the importance of partner management	Educates patient for compliance and prevention, promotes condoms and emphasizes the importance of partner management	Educates patient for compliance and prevention, promotes condoms and emphasizes the importance of partner management

Now, ask: “Why is the syndromic approach considered most suitable for the management of STIs/RTIs?”

Let 2-3 participants respond. Show Slide 14 and explain the public health importance of STIs/RTIs and the necessity of treating all STI/RTI cases at the first visit, at any level of health care.

Also ask the participants to go through the Appendices at the end of this module namely, Appendix 1 which provides evidence of the effectiveness of syndromic management, Appendix 2 on further references on the subject for reading, and Appendix 3 on some references on the limitations of this approach.

## Slide 14

### WHY DOES SYNDROMIC MANAGEMENT HAVE SPECIFIC RELEVANCE TO STIs/RTIs?

- STI clients hesitant to approach doctors
- Often choose far-off doctors
- Do not prefer to revisit
- First visit may be the last chance
- If opportunity missed the first time – it is like pushing client towards HIV (2-9 times)
- Dealing with 1 STI case is an opportunity to treat at least 1 more case (may be more)
- IT IS A PUBLIC HEALTH PROBLEM, not about one individual

Clarify the points on Slide 14 by saying:

- “Like many other doctors, you must have experienced that STI/RTI clients are hesitant to approach a doctor because of the shame and stigma attached to STIs/RTIs.
- “They usually go to a far-off centre or a private doctor for treatment to avoid being recognized.
- “Most of them do not return for follow up visits; again, because they want to remain unidentified due to the stigma and/or fear that the doctor may scold them.
- “As a result, for practical purposes, their first visit could be the last visit for us. This means that our only chance of treating them is NOW!
- “If we miss this opportunity, we are almost allowing the person not only to walk on the path of the dreaded complications of STIs/RTIs that we have discussed, but to contract HIV, which can easily infect (2-9 times greater chances) a person co-infected with a STI/RTI.
- “Moreover, when we deal with one STI patient, there is at least one partner at the other end who also needs treatment. There could even be more partners. So, it also gives us an opportunity to provide treatment and advice to the partners.
- “And finally, please remember that this is not only about the individual sitting in front of you but many more partners related to that individual. Therefore, it is a public health problem and not an individual problem.

“Since syndromic management allows you to treat all the most common infections possible at first visit, and many with single-dose therapy, it is the most relevant management approach available for containing STIs/RTIs, and thereby HIV infection, in our respective work areas as well as in our country.”

Finally, close the discussion by saying that although the syndromic approach is the best approach in our health care settings, the support of simple laboratory tests, if available, could be taken to know more about the infection/s. This will not only help us to enhance the effectiveness of syndromic management but also provide us with valuable epidemiological data on STIs/RTIs. The approach of using laboratory tests in conjunction with the syndromic approach is called enhanced syndromic management.

**However, caution participants that under no condition should syndromic treatment be delayed or denied to any STI/RTI patient during his/her first visit to the clinic due to pending laboratory results.**

### **CAUTION**

- ❖ It is very essential for facilitators not to show disrespect toward any particular management approach during discussion. Many doctors are very egoistic about their clinical skills. Also, doctors who have their own laboratories think that the laboratory-assisted approach is the best. Therefore, be non-judgmental or unbiased during this discussion.
- ❖ While explaining Slide 14 about the public health relevance of the syndromic approach, facilitators must proceed step-by-step and explain the situation described in the first three bullet points. Most doctors will agree about the reluctance of patients to make clinic/doctor visits and revisits for follow up.
- ❖ Emphasize that the first visit could be the client's only visit and doctors should make the best use of this opportunity by providing correct and complete treatment including client/health education and counseling.
- ❖ It is extremely important for all the participants/doctors to be completely convinced about the relevance of syndromic management of STIs/RTIs in our current settings.
- ❖ It is possible that participants may raise certain common concerns given in Appendix 4 at the end of this module. Read all the information about these concerns/criticisms thoroughly and be ready to respond to any expressed concern.
- ❖ Respond to concerns only if the participants raise them. If not, do not discuss them. Just ask the participants to read these at leisure from their "National Technical Guidelines".

## SESSION 3

### Classification of STIs/RTIs by syndromes

**Objective:**

At the end of the session, the participants will be able to:

- Classify different STIs/RTIs according to syndromes

Remind the participants about the three ways of classifying STIs/RTIs discussed in the last session, namely -

- According to the causative organisms
- According to the mode of transmission, and
- According to the presenting symptoms or syndromes

Tell them that we have discussed the first two classifications in Module 3.

Say: “Since we have discussed the syndromic approach for STI/RTI management, it is now appropriate to look at the classification of STIs/RTIs according to their presenting symptoms or syndromes.”

Take the example of urethral discharge or genital ulcer and explain how different STIs/RTIs are covered under one syndrome depending on the major presenting symptoms.

Close the discussion showing Slides 15 and 16 on STI/RTI syndromes in men and women respectively. Tell the participants that since these syndromes will be covered in later sessions, they should remember the causative organisms of these syndromes. This would help them to identify the appropriate drug for treating each organism.

**Slide 15**

<b>STI/RTI SYNDROMES IN MEN</b>		
Symptoms	Syndrome	Common STIs/RTIs
Urethral discharge	Urethral/Vaginal discharge syndrome	Gonorrhoea, chlamydia, trichomoniasis
Genital ulcers	Genital ulcer syndrome	Chancroid, syphilis, genital herpes
Inguinal bubos	Inguinal bubo syndrome	Lymphogranuloma venerium, chancroid
Scrotal swelling	Painful scrotal swelling	Gonorrhoea, chlamydia
Genital skin conditions	Genital skin conditions	Genital warts, molluscum contagiosum, pediculosis pubis, genital scabies
Ano-rectal discharge	ARD (Ano-rectal discharge)	Gonorrhoea, chlamydia
Cough and throat irritation	Gonococcal pharyngitis	Gonorrhoea, chlamydia

Slide 16-

### STI/RTI SYNDROMES IN WOMEN

Symptoms	Syndrome	RTIs/STIs
Vaginal discharge	Vaginal cervical ?? discharge syndrome	Cervicitis: gonorrhoea, chlamydia, trichomoniasis, herpes simplex, vaginitis: trichomoniasis, candidiasis, bacterial vaginosis
Lower abdominal pain	Lower abdominal pain	Gonorrhoea, chlamydia, mycoplasma gardnerella, anaerobic bacteria (bacteroids, eg. gram positive cocci)
Genital Ulcers	Genital ulcer syndrome	Syphilis, chancroid, genital herpes
Genital skin conditions	Genital skin conditions	Genital warts, molluscum contagiosum, pediculosis pubis, scabies
Ano-rectal discharge	Ano-rectal discharge	Gonorrhoea, chlamydia
Cough and throat irritation	Gonococcal pharyngitis	Gonorrhoea, chlamydia

## SESSION 4

### Use of flowcharts in STI/RTI management

#### Objective:

At the end of this session, the participants will be able to:

Use case studies to demonstrate the use of flowcharts for decision-making in STI/RTI management

Summarize the previous discussion by saying: “So far, we have seen that among the three approaches, the syndromic approach for STI/RTI management is the most relevant option in our health care settings. We have also seen how different STIs/RTIs can be classified according to their major presenting symptoms or syndromes and looked at different STI/RTI syndromes in men and women. Now, we are ready to discuss the use of flowcharts.”

Ask the participants whether they have used a flowchart before. Most of them would not have used one.

Next, ask participants who have used a flowchart to describe what a flowchart is and how it works,

After getting responses from 1-2 participants, show Slide 17 and explain how flowcharts work.

While explaining, you may want to use one of the flowcharts in the next module as an example.

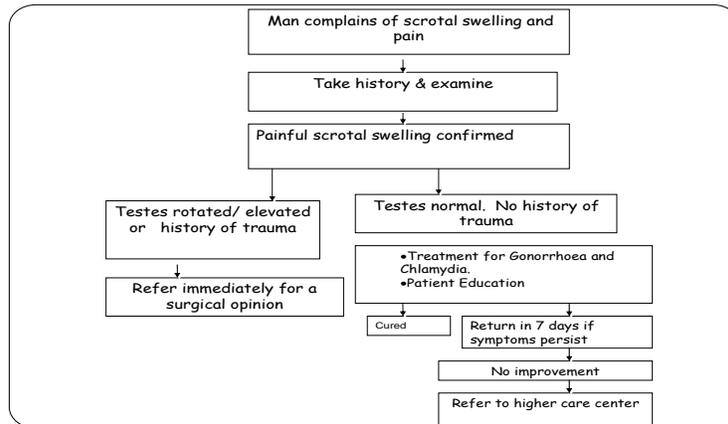
#### Slide 17

##### USING FLOWCHARTS

- Determine the clinical problem
- Pick up appropriate flowchart by looking at the clinical problem box at the top
- Take history
- Perform clinical examination
- Make decisions based on history and clinical examination
- Follow more boxes to consider and make choices
- Follow the arrows
- Do not skip steps
- Take one step at a time until you reach the end of the branch
- Each exit path leads to an action box that tell you how to manage the case

Now, show Slide 18 and explain the use of a flowchart for scrotal swelling in males (Page 26-27 of the “National Technical Guidelines”).

### Slide 18



After ensuring that all the participants have understood the use of flowcharts, ask them to see Pages 24 to 37 of the “National Technical Guidelines” showing actual flowcharts.

Remind them about the different syndromes addressed through flowcharts.

Now, show Slide 19 and tell them that we will quickly practice how to choose an appropriate flowchart using the major presenting symptoms stated by the patient.

### Slide 19

#### IDENTIFYING APPROPRIATE SYNDROMIC MANAGEMENT FLOWCHARTS

- Case studies
- Read the case
- Look at the symptoms of the patient
- Identify the syndrome
- Decide which flowchart to pick up for further action

Next, hand out the previously prepared case study cards to the participants (Write one case study on each card from the case studies given below this shaded box). Depending on the number of participants and the number of cards available, either provide one case study per participant or ask them to work in pairs (with the person next to them).

Ask them to read the case study describing the major presenting symptoms and identify the syndrome and the flowchart they would use for it.

Allow two minutes to consider and ask each participant/pair to read out the case study loudly and name the syndromic flowchart to be used. Appreciate good work.

### CASE STUDIES FOR EXERCISE

1. Pandit is a 30 year-old man who is married and has five children. He has come to the clinic with urethral discharge and admits that he frequently has unprotected sex with women other than his wife.

**Response:** Urethritis flowchart

2. Shankar, a 24 year-old married man, comes to the clinic for a sore on the penis. He admits to having had unprotected sexual intercourse with a female sex worker.

**Response:** Genital ulcer flowchart

3. Radha, a 25 year-old woman who has been married for three years and has no children, visits a designated STI clinic. She complains of lower abdominal pain for no apparent reason and vaginal discharge since the last five days.

**Response:** Lower abdominal pain flowchart

4. Suman, a 26 year-old woman, comes to a designated STI clinic for a family planning method. During a family planning counseling session with the nurse, Suman mentions that she has been having unusual vaginal discharge.

**Response:** Vaginal discharge flowchart

5. Raghu, a 21 year-old college student, comes to a designated STI clinic for swelling and pain in the inguinal region. He had visited four commercial sex workers in the last two months.

**Response:** Inguinal bubo flowchart.

6. Salim, a 20 year-old college student, visits a designated STI clinic for swelling and pain in the scrotal region. He has a history of unprotected sexual exposure once during the last 15 days.

**Response:** Scrotal pain and/or swelling flowchart.

7. Fatima, a 23 year-old woman, visits a designated STI clinic for oral ulcers. She also gives a history of ulceration in the genital region with discharge. On enquiry, she reveals that she is a commercial sex worker.

**Response:** Oral and anal STIs flowchart

8. Madan, a 33 year-old man, visits a designated STI clinic for soft, non-painful swelling in the anal region. He gives a history of indulging in anal sex with men.

**Response:** Ano-genital warts.

9. Ganga, a 28 year-old married woman, brings her five year-old child to the designated STI clinic for multiple boils over the hands and legs with severe itching. On enquiry, she gives a history of itching in the genital region.

**Response:** Genital skin conditions (scabies)

### MORE CASE STUDIES FOR EXERCISE

1. Reena, a 28 year-old married woman, has itching in the genital region. She also complains of vaginal discharge and burning while passing urine. **Answer:** VCD
2. Kanta, a 30 year-old married woman with a single partner, comes to your clinic with vaginal discharge. **Answer:** VD
3. Mala is a 24 year-old recently-married woman with a single partner who has a genital ulcer. **Answer:** GUD
4. Rajesh is a 30 year-old married man who has come to the clinic with urethral discharge. **Answer:** UD
5. Geeta is a 16 year-old student who has a boy friend and has recently had relations with him on two or three occasions. Now, she is complaining of white discharge and fever. **Answer:** VD
6. Veera is a 25 year-old married woman with a complaint of abdominal pain. On enquiry, she gives a history of vaginal discharge off and on for one year. **Answer:** LAP
7. Sangita, a 35 year-old woman, is a commercial sex worker who has multiple sores on the genitals. **Answer:** GUD
8. Rekha, a 40 year-old woman, has come with chronic lower abdominal pain and low backache. **Answer:** LAP
9. Harish, 22 year-old unmarried student, who has come to the clinic with pain and swelling in the genital region. **Answer:** IB
10. Pratap, a 35 year-old married man, has come with pain and a burning sensation while passing urine. **Answer:**

Now, show Slide 20 summarizing the key points of the session. Draw the participants' attention to the bold and underlined text.

### Slide 20

#### TO SUM UP .....

- Syndromic management is a **scientific and proven approach**.
- Syndromic approach **does not deny use of laboratory tests**. It can supplement the approach (enhanced syndromic approach).
- This approach ensures **correct and complete treatment** of all **most common organisms** responsible for a particular syndrome.
- Syndromic management goes beyond pharmaceutical treatment to **include client education and counseling**.
- The **clinical skills of a doctor are well utilized** in syndromic approach.

M4/20

Finally, show Slide 21 and describe the crucial role that doctors can play in implementing syndromic management of STIs/RTIs.

Close the session by saying that we will take up all the syndromic management flowcharts in the next module. Tell them that we will visit each syndrome in detail and discuss syndromic diagnosis, treatment, patient education. and follow up action.

## Slide 21

### ROLE OF DOCTORS IN SYNDROMIC MANAGEMENT

- Use syndromic management for providing correct and complete cure to STI/RTI clients.
- Even if you have a simple or modern lab support, never delay the treatment waiting for the laboratory results. Provide syndromic regimens. The client may not wait or come back.
- Pharmaceutical treatment must be supplemented with client education and counseling for better impact of your treatment and for prevention of infections in future.

M4/21

## APPENDIX 1 (MODULE 4)

### IMPORTANT EVIDENCE OF THE EFFECTIVENESS OF THE SYNDROMIC APPROACH FOR STI MANAGEMENT

REFERENCE No.	STUDIES/TITLES	KEY FINDINGS
1.	Health Care Provider Survey in Healthy Highways Project, India	The study found that STI treatment in India was not addressing best and current medical standards.
2.	<u>Mwanza, Tanzania Study:</u> Improvement in treatment services significantly reduced the prevalence of sexually transmitted diseases in rural Tanzania: results of a randomized controlled trial.	The WHO-advocated syndromic approach to STI treatment reduced HIV incidence by 42 percent. In the absence of sexual behaviour change, the most plausible explanation for the reduced HIV incidence was a shortening of the average duration of STIs, thus effectively reducing the probability of HIV transmission.
3.	Research in Malawi: Treatment of urethritis reduces the concentration of HIV-1 in semen: implications for prevention of transmission of HIV-1	The study provides strong evidence that STIs are associated with higher HIV infection rates and that syndromic management of STIs can make HIV-positive men less infectious. HIV concentrations in the seminal plasma of HIV seropositive men with urethritis were eight times higher than in seropositive men without urethritis. Antimicrobial therapy directed against STIs based on syndromic management, resulted in a significant decrease in the concentration of HIV in the semen of urethritis patients.
4.	<u>The HIV/AIDS Prevention and Control SYNOPSIS Series</u>	The report synthesizes project experiences of FHI in 14 countries in Latin America and the Caribbean region and discusses the importance of syndromic management of STIs in STI/HIV control.
5.	<u>Mwanza, Tanzania study:</u> Cost-effectiveness of improved treatment services for sexually transmitted diseases in preventing HIV-1 infection in Mwanza Region, Tanzania	A study of the cost-effectiveness of improved treatment services for STDs through syndromic management in preventing HIV infection obtained favourable results. The study suggests that cost-effectiveness should further improve when the intervention is applied on a larger scale and recommends that resources be made available for this highly cost-effective HIV control strategy.

6.	China study: Is syndromic management better than the current approach for treatment of STDs in China?: Evaluation of the cost-effectiveness of syndromic management for male STD patients.	An evaluation of the cost-effectiveness of syndromic management for male STI patients in resource poor settings of China showed that syndromic management can provide better treatment for men with STIs at a significantly lower cost.
7.	<u>Pune Study</u> : The etiology of genital ulcer disease by multiplex polymerase chain reaction and relationship to HIV infection among patients attending sexually transmitted disease clinics in Pune, India:	A review of current studies found that flowcharts used in the syndromic diagnosis and treatment of urethral discharge and genital ulcer disease in men had high sensitivities or cure rates (urethral discharge: 87-99%; genital ulcer disease: 68-98%).
8.	Syndromic management of sexually transmitted diseases: is it rational or scientific?	Syndromic management is scientific and rational
9.	Presumptive specific clinical diagnosis of genital ulcer disease (GUD) in a primary health care setting in Nairobi.	
10.	Genital ulcers: etiology, clinical diagnosis, and associated immunodeficiency virus infection in Kingston, Jamaica.	
11.	Dangor Y et al. Accuracy of clinical diagnosis of genital ulcer disease.	
12.	The clinical diagnosis of urethral discharge	Even highly skilled STI specialists will misdiagnose or miss concurrent infections in a significant proportion of cases of genital ulcers and urethral discharge, when making diagnoses on the basis of their own clinical experience

## **APPENDIX 2 (MODULE 4)**

### **REFERENCES ON SYNDROMIC MANAGEMENT OF STIs**

1. Taylor N. Sofres: *Health Care Provider Survey in Healthy Highways Project, India* (with technical assistance from Family Health International and funded by the UK Department for International Development) 2000.
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3. Hoffman, I and Vuylsteke, B: "STD syndromic management". In *HIV/AIDS Prevention and Control SYNOPSIS Seriesa*, Family Health International, AIDS Control and Prevention Project, Latin America and Caribbean Regional Office, November 1997.
5. Gilson, Lucy et al: Cost-effectiveness of improved treatment services for sexually transmitted diseases in preventing HIV-1 infection in Mwanza Region, Tanzania. *The Lancet*. 350:1805-1809,1997.
6. Hongjie, L et al: Is syndromic management better than the current approach for treatment of STDs in China?: Evaluation of the cost-effectiveness of syndromic management for male STD patients. *Sex Transm Dis*. 30(4):327-330, 2003.
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10. Behets, FMT et al: Genital ulcers: etiology, clinical diagnosis, and associated immunodeficiency virus infection in Kingston, Jamaica. *Clin Infect Dis*. 28:1086-1090, 1999.
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13. Pettifor, Audrey et al: How Effective Is Syndromic Management of STDs: A Review of Current Studies. *Sex Transm Dis*. 27(7):371-385, 2000.

14. AIDSCAP/Family Health International: *HIV/AIDS Prevention and Control Series: STD Syndromic Management*, Published by Latin America and Caribbean Regional Office, AIDSCAP/Family Health International, November 1997.
15. World Health Organization: WHO training publication: *STD Case Management — The Syndromic Approach for Primary Health Care Settings*, Module 2.

## APPENDIX 3 (MODULE 4)

### RERERENCES ON SOME LIMITATIONS OF SYNDROMIC CASE MANAGEMENT

1. Hawkes S et al: Reproductive-tract infections in women in low-income, low-prevalence situations: assessment of syndromic management in Matlab, Bangladesh. *The Lancet*, 354:1776-81, 1999.
2. Dallabetta GA, Gerbase AC and Holmes KK: Problems, solutions, and challenges in syndromic management of sexually transmitted diseases. *Sex Transm Infect.* 74 Suppl 1: S1-11, 1998.
3. Vuylsteke B: Current status of syndromic management of sexually transmitted infections in developing countries. *Sex Transm Infect.* 80:333-4, 2004.
4. Hoyo C et al: Improving the accuracy of syndromic diagnosis of genital ulcer disease in Malawi. *Sex Transm Dis.* 32:231-7,2005.

## APPENDIX 4 (MODULE 4)

### COMMON CONCERNS ABOUT SYNDROMIC MANAGEMENT

#### **1. Why does the national programme focus on STI management?**

The rapid spread of HIV infection and its strong link with STIs is the reason for recommending early detection and effective management of STIs, preferably “at points of first contact” between patients and their selected health care providers. By increasing effective and patient-satisfying treatment early in an STI patient’s disease expression, the chances of decreasing the spread of STIs as well as decreasing the STI patient’s susceptibility to HIV are increased.

Another reason for this new attention to STIs is obvious: the sexual behaviours that lead to STIs also promote the spread of HIV.

A major recent and respected study of the Health Care Provider Survey in the Healthy Highways Project, India found that STI treatment was not addressing best and current medical standards.<sup>1</sup> Hence, one of the strategies of the NACO project is to increase awareness among medical providers of the recent and improved medical approaches to STI treatment of male clients of female sex workers - often the key spreaders of STIs including HIV into the general population.

#### **2. Are there studies confirming the validity of syndromic management of STIs for HIV prevention?**

The following studies confirm and support the validity of syndromic management of STIs for the HIV prevention strategy:

In a landmark pilot study in Mwanza, Tanzania, the use of the syndromic approach to STI treatment advocated worldwide by WHO, reduced HIV incidence by 42 percent.<sup>2</sup> The most plausible explanation for this observed reduction which occurred in the absence of sexual behavior change was that the STI treatment programme reduced HIV incidence by shortening the average duration of STIs, thus effectively reducing the probability of HIV transmission.

Subsequent research in Malawi<sup>3</sup> produced strong evidence that STIs are associated with higher HIV infection rates and that syndromic management of STI treatment can make HIV-positive men less infectious. In the Malawi study, HIV concentrations in the seminal plasma of HIV seropositive men with urethritis was eight times higher than in seropositive men without urethritis. After the urethritis patients received antimicrobial therapy directed against STIs based on syndromic management, the concentration of HIV in semen decreased significantly.

The HIV/AIDS Prevention and Control SYNOPSIS Series,<sup>4</sup> of Family Health International, AIDS Control and Prevention Project, Latin America and Caribbean Regional Office, has synthesized project experiences in 14 countries in the region. This report discusses the importance of syndromic management of STIs in STI/HIV control.

### **3. Is syndromic management a cost-effective HIV prevention strategy?**

The Mwanza, Tanzania study,<sup>5</sup> on the cost-effectiveness of improved treatment services for STDs through syndromic management in preventing HIV infection obtained favourable results. The study suggests that cost-effectiveness should improve further when the intervention is applied on a larger scale, and recommends that resources be made available for this highly cost-effective HIV control strategy.

### **4. The syndromic approach wastes money: it requires us to waste a lot of drugs by treating patients for infections they may not have.**

A study<sup>6</sup> on the evaluation of the cost-effectiveness of syndromic management for male STI patients in resource poor settings of China shows that syndromic management can provide better treatment for men with STIs at significantly lower cost.

WHO indicates that the syndromic approach actually makes STI care less expensive in the long run because:

- The equipment, skills, and systems needed to make an etiological (laboratory-assisted) diagnosis are expensive.
- Failed treatment or incorrect clinical diagnosis that results in inappropriate or incomplete treatment make the cost of treating patients higher because they have to be treated again, may develop complications that are more expensive to treat, and may continue to spread the infection.

### **5. The syndromic approach does not use a doctor's clinical skills and experience like the traditional clinical approach does. The approach does not seem scientific enough.**

For many clinicians, it is difficult to accept that using clinical judgment alone (traditional clinical approach) could be a problem. A review of current studies<sup>7</sup> reports that flowcharts used in the syndromic approach for the diagnosis and treatment of urethral discharge and genital ulcer disease in men had high sensitivities or cure rates (urethral discharge, 87-99%; genital ulcer disease, 68-98%).

WHO states that that even highly experienced STI specialists using clinical diagnosis will often fail to make the correct diagnosis and indicates that clinical diagnosis is accurate for only 50% of STI cases and also misses mixed infections (when the patient has more than one STI).

Evidence from several studies<sup>7-11</sup> also shows that the syndromic approach is scientific and rational.

Clinical diagnosis can be problematic because:

- STIs often vary in the way they appear upon examination (i.e., they often do not appear as a "textbook" case).
- A person may have more than one infection at a time, making clinical diagnosis even more difficult.

- Previous self-treatment or previous treatment by another provider (or a traditional healer) may alter the signs and symptoms by the time the person comes to the clinic.

Although the laboratory-assisted approach can be reliable for management of STIs, it is often not available to health providers in our country because it depends on trained laboratory technicians, availability of laboratory supplies and, in some cases, expensive specialized equipment. Additionally, from the public health point of view, this method may require the patient to return for a second visit to collect laboratory results and receive treatment, thereby causing a delay in starting treatment and possible additional exposures and spread of STIs before treatment. Sometimes, STI patients may not return to the doctor for treatment after testing. During this time, they remain infectious and complications can occur.

Even highly skilled STI specialists will misdiagnose or miss concurrent infections in a significant proportion of cases of genital ulcers and urethral discharge, when making a diagnosis on the basis of their own clinical experience.<sup>11, 12</sup>

WHO states that the algorithms (flowcharts) suggested in syndromic management are based on epidemiological studies conducted throughout the industrialized and developing world and a number of validation comparisons of syndromic diagnosis with laboratory-assisted diagnosis have found them to be similar in terms of accuracy. As a result, syndromic diagnosis has been recommended by WHO in many settings all over the world and the Indian government (NACO) has also adopted this approach for our country.

#### **6. The approach treats only the most common causes.**

It is better to treat the patient for the most common causes first, and treat him/her for other causes only if the symptoms do not improve. It is more effective to treat the patient immediately than to require return visits for treatment. In many settings, it is difficult for patients to make repeat visits to a clinic. Additionally, if a patient is not cured of symptoms by the initial treatment, the patient is less likely to return to the clinic for additional treatment — or may even seek inappropriate alternatives or self-treatment. In addition, patients who become asymptomatic or are not treated for other potential causes of the syndrome immediately may continue to spread the infection to partners.

#### **7. What about the increased potential for antibiotic resistance with this approach?**

Antibiotic resistance occurs when people do not take enough antibiotics to cure an infection completely. The syndromic approach encourages doctors to give standardized treatment using the most effective medications available for a given syndrome and to use single-dose therapy whenever possible, thereby preventing problems of patient compliance. Effective communication between the doctor and patient, as suggested in the syndromic approach, also makes it more likely that patients will continue to take the medication as requested after they leave the clinic.