

SAARC LEVEL CURRICULUM ON TB AND HIV TRAININGS AND WORKSHOPS

**SAARC Tuberculosis and HIV AIDS Centre (STAC)
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FOREWORD

With the vision of the STAC to support and guide SAARC Member States to make the region free of TB and HIV/AIDS and the mission is to support the efforts of National TB and HIV/AIDS Control Programmes through evidence based policy guidance, coordination and technical support, it is my pleasure to bring the curriculum for the different Cadre of Health Workers in the SAARC regions.

The global target of 90-90-90 by 2020 requires all countries to fast track their response to HIV to achieve these targets. Provision of quality ART services is crucial in achieving the global targets (second and third) of 90-90-90 by 2020. Similarly, there is need for consolidated action to move WHO post-2015 strategy that aims to eliminate TB as a global epidemic by 2035.

Human Resource Development for health care provider is one of the important area of STAC which aims to enhance and update the knowledge, to implement, sustain and scale up of various aspects of TB and HIV/AIDS Control activities in SAARC Member States. This curriculum provides strong guide and reference to organize training for various level of medical officers and health workers of the member states in TB and HIV/AIDS area.

The UNION and WHO guidelines have been taken as reference while developing and revising this curriculum to ensure the competency of the health workers and to ensure the quality of service provided.

I would like to extend my sincere appreciation to our National TB Control Programme Managers, experts and other stakeholders of Member States for their support and guidance to develop this curriculum.

Dr. Tara Nath Pokhrel
Director

1. BACKGROUND

South Asian Association for Regional Cooperation (SAARC) SAARC is an organization of eight countries located in the South Asia and it stands for the South Asian Association for Regional Corporation (SAARC). This is an economic and geopolitical organization, established to promote socio-economic development, stability, welfare economics, and collective self-reliance within the Region. The first summit was held in Dhaka, Bangladesh on 7–8 December 1985 and was attended by the Government Representatives and Presidents from Bangladesh, Maldives, Pakistan and Sri Lanka, the Kings of Bhutan and Nepal, and the Prime Minister of India. The dignitaries signed the SAARC Charter on 8 December 1985, thereby establishing the regional association and to carry out different important activities required for the development of the Region. The summit also agreed to establish a SAARC secretariat in Kathmandu, Nepal and adopted an official SAARC emblem. Due to rapid expansion within the region, Afghanistan received full-member status and some countries are considered as observers. SAARC respects the principles of sovereign equality, territorial integrity, and national independence as it strives to attain sustainable economic growth. The 3% of the area of the world is represented by SAARC countries. It is around 1.72 billion of the people and it is 24% of the world population.

The objectives of SAARC, as defined in its charter, are as follows:

- a) to promote the welfare of the peoples of SOUTH ASIA and to improve their quality of life;
- b) to accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realize their full potentials;
- c) to promote and strengthen collective self-reliance among the countries of SOUTH ASIA;
- d) to contribute to mutual trust, understanding and appreciation of one another's problems;
- e) to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields;
- f) to strengthen cooperation with other developing countries;
- g) to strengthen cooperation among themselves in international forums on matters of common interests; and
- h) to cooperate with international and regional organizations with similar aims and purposes

SAARC has established permanent diplomatic relations with the European Union and United Nations as observers. Foreign Ministers of the SAARC countries are met twice a year and the official meeting of the leaders of the SAARC Member States is held once a year. The recent 18th SAARC Summit was held in the Kathmandu, Nepal on 26th and 27th November 2014. It is planned to organize 19th SAARC Summit in Pakistan. This 19th Summit has been postponed. Regional Centers have been established in Members States in order to promote regional cooperation. These Centers are handled by Boards of representatives from all SAARC Member States and every year separate Governing Board Meeting is organized for the evaluation and monitoring of the activities of the Centers and formulation of the

programmes and budget for the approval of Standing/Programming Committee of SAARC. SAARC Tuberculosis and HIV/AIDS Centre (STAC). The Centre was established in 1992 as

SAARC Tuberculosis Centre (STC) and started functioning from 1994. The Centre had been supporting the National Tuberculosis Control Programmes of the SAARC Member States. The Thirty-first session of Standing Committee of SAARC held in Dhaka on November 09th – 10th 2005, appreciating the efforts of the centre on TB/HIV co-infection and other works related to HIV/AIDS discipline and approved the renaming of the Centre as SAARC Tuberculosis and HIV/AIDS Centre (STAC) with additional mandate to support SAARC Member States for prevention of HIV/AIDS. Since then with its efforts and effective networking in the Member States the Centre is contributing significantly for control of both TB and HIV/AIDS.

Vision, Mission, Goal and Objective of STAC

The vision of the Centre is to be the leading institute to support and guide SAARC Member States to make the region free of TB and HIV/AIDS and the mission is to support the efforts of National TB and HIV/AIDS Control Programmes through evidence based policy guidance, coordination and technical support.

The goal of the Centre is to minimize the mortality and morbidity due to TB and HIV/AIDS in the Region and to minimize the transmission of both infections until TB and HIV/AIDS cease to be major public health problems in the SAARC Region and the objective of the Centre is to work for prevention and control of TB HIV/AIDS in the Region by coordinating the efforts of the National TB Programmes and National HIV/AIDS Programmes of the SAARC Member Countries.

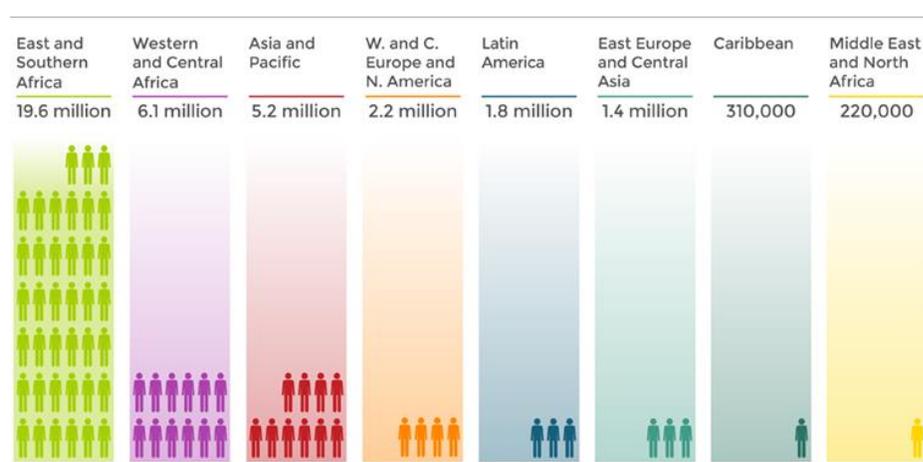
Functions of STAC

- To act as a Regional Co-ordination Centre for NTPs and NACPs in the Region.
- To promote and coordinate action for the prevention of TB/HIV co-infection in the Region.
- To collect, collate, analyze and disseminate all relevant information regarding the latest development and findings in the field of TB and HIV/AIDS in the Region and elsewhere.
- To establish a networking arrangement among the NTPs and NACPs of Member States and to conduct surveys, researches etc.
- To initiate, undertake and coordinate the Research and Training in Technical Bio-medical, operational and other aspects related to control of Tuberculosis and prevention of HIV/AIDS in the Region.
- To monitor epidemiological trends of TB, HIV/AIDS and MDR-TB in the Region.
- To assist Member States for harmonization of policies and strategies on TB, HIV/AIDS and TB/HIV co-infection.
- To assist National TB Reference Laboratories in the Region in quality assurance of sputum microscopy and standardization of culture and drug sensitivity testing and implementation of bio-safety measures.
- To carry-out other important works identified by the Programming Committees/Governing Board.

2. SAARC Regional Training Manual on Anti-Retroviral Therapy

Situation

Nearly 36.9 million people (35.1 million adults and 1.8 million Children) globally were living with HIV in 2017. Among them nearly 21.7 million people were accessing antiretroviral therapy in 2017. Those accessing antiretroviral therapy increased from 8 million in 2010. 59% all people living with HIV were accessing treatment. 59% of adults aged 15 years and older (65% Female where as 53% male) living with



Source: UNAIDS Data 2018

Figure 1: Global and Regional Burden of HIV

HIV had access to treatment, as did 52% [37–70%] of children aged 0–14 years. Nearly 80% of pregnant women living with HIV had access to antiretroviral medicines to prevent transmission of HIV to their babies in 2017. About 1.8 million people became newly infected with HIV and nearly 1 million people died from

AIDS-related illnesses in 2017. (1) SAARC Region has an estimated 2.26 million People Living with HIV and India alone bears an estimated 2.1 million of that number in year 2015. HIV epidemic in the SAARC Region is a collection of different epidemics in the Member States with their own characteristics and dynamics. (2)

Global scale up of anti-retroviral therapy (ART) significantly contributed in the reduction of AIDS related

Annual number of deaths from HIV/AIDS and the estimated number which have been averted as a result of antiretroviral therapy (ART).

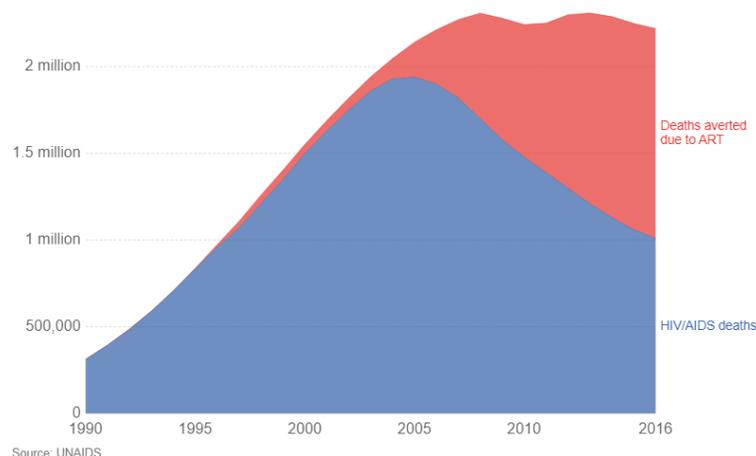


Figure 2: No. of HIV related deaths and averted by ART

deaths worldwide and Asia and the Pacific are also not an exception (Figure 2). (3). AIDS related deaths declined by 51% since 2004 when it was at peak. Scaling up of quality ART services must be backed-up by trained human resources to provide quality treatment monitoring and keep the HIV viral load suppressed as desired.

According to UNAIDS data released on 2018, 21.7 million people were

Accessing ART in 2017

worldwide and it was 2.7 million people on Asia Pacific alone. SAARC member states are included within the Asia and Pacific region. (1)

The global target of 90-90-90 by 2020 requires all countries to fast track their response to HIV to achieve these targets. Provision of quality ART services specifically is crucial in achieving the second and third 90 targets. In order to achieve optimal treatment outcomes, it is necessary to follow standardized treatment protocols and ensure highest levels of adherence to treatment (>95%) and to periodically update them based on emerging evidence.

Considering these advancements in HIV treatment and the global and national commitments, a training curriculum at SARC level also needs to be developed to address HIV and use of anti-retro viral therapy.

Purpose of the training:

The main purpose of this training is to provide knowledge and skills to the doctors, nurse and other health service provider of SAARC member states' National TB and HIV program on diagnosing and managing HIV and HIV-related diseases, including opportunistic infections (OI) and management of ART.

Methodology:

This training course uses participatory approaches and methodologies, such as clinical management algorithms and case studies. This has been designed as the module-based training course; so that participants will learn in a participatory manner. Participants will be divided in small groups (4-5) and read the module and discuss on issues not clear to them, with the support of the facilitators. Every day; main points and other reference material will be presented through PowerPoint presentations during review of previous day's session to develop common understanding and to give focus on the important topics.

Participants:

The participants of this training will be the doctors, nurses, health assistants and other health care service providers involved in HIV diagnosis and treatment.

Duration of training:

This is a 5 (five) days training.

Expected outcome:

The training will increase the participants' knowledge and skills in diagnosing and treating HIV and its associated conditions.

Comparison between STAC document and other international documents in HIV case management and anti-retroviral therapy

Content comparison between the existing SAARC regional training manual 2015 was done with other

available related document. WHO Basic ART Clinical Course 2004 and WHO Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection 2016 were taken to compare with the existing SAARC module.

The 2013 WHO Consolidated Guidelines on the Use of ART for Preventing and Treating HIV Infection followed a public health approach. The aims of the guidelines are to ensure universal access to ART, use of fixed drug combinations, strategic and rational use of medicines, and to optimize existing health care systems to ensure long-term sustainability of HIV treatment activities. The guidelines clearly state that “implementation of the recommendations in these guidelines should be informed by local context, including HIV epidemiology, availability of resources, the organization and capacity of the health system and anticipated cost effectiveness issues. Based on evidence from recent studies (African Temprano and START and other large observational studies), WHO revised the consolidated guidelines on “The Use of ARV Drugs for Treating and Preventing HIV Infection, Recommendation for a Public Health Approach” in 2016.

These three documents have many things in common although the title or terminologies used are different. The detail comparison is presented in Table 1.

Table 1. Content comparison between SAARC training manual with WHO training manual and WHO guidelines on preventing and treating HIV

Existing contents in the training manual of STAC (2015)	WHO Training Manual	WHO Guidelines' recommendations
<ul style="list-style-type: none"> • HIV Background and Epidemiology • Basic Immunology and Natural History of HIV and AIDS • Diagnosis of HIV and HIV-specific Laboratory Investigations • Clinical Presentation and WHO Staging • Overview of HIV Related Disease and Cotrimoxazole prophylaxis • Comprehensive Care for PLHIV • Respiratory Manifestations of HIV Neurological Manifestations and Gastrointestinal Manifestations Dermatological Manifestations of HIV and Lymphadenopathy and Fever in HIV • STIs and Gynecological Manifestations of HIV and Ophthalmologic Manifestations Country Preparedness and Community Preparedness • Site Preparedness • Linkages and referral • 	<ul style="list-style-type: none"> • Introduction to chronic HIV care including ARV therapy • Introduction to HIV/AIDS and opportunistic infections • HIV and antiretroviral drugs • Adherence and resistance • Assess (clinical review of symptoms and signs, medication use, side effects, complications) • Use of HIV care/ART card • Prophylaxis • Adherence preparation • Initiate first line ARV regimen at first level facilities in patients without complications • Four first line ARV regimens • Managing side effects and other causes of symptoms and signs in patients on the four first line ARV regimens • Support ART initiation, then monitor and support adherence • Integrating prevention with treatment • Special considerations for ART in pregnant and post partum women • Special considerations in children • Is ART working? 	<ul style="list-style-type: none"> • HIV diagnosis <ul style="list-style-type: none"> ○ Retesting prior to enrolment in care ○ Pre and post test services ○ Principles and approaches to service delivery ○ HIV diagnosis in infants and children ○ Diagnostics • Antiretroviral drugs for HIV prevention <ul style="list-style-type: none"> ○ Oral pre-exposure prophylaxis for preventing the acquisition of HIV ○ Post exposure prophylaxis ○ Combination of HIV prevention • Clinical guidelines: Antiretroviral Therapy <ul style="list-style-type: none"> ○ Preparing people living with HIV for ART ○ What to expect in the first month of ART ○ When to start ART ○ What to start: first line ART ○ Monitoring the response to ART and diagnosing treatment failure ○ Monitoring of and substitutions for ART drug toxicities ○ Key ARV drug interactions ○ What ART regimen to switch to (second and third line ART)

Existing contents in the training manual of STAC (2015)	WHO Training Manual	WHO Guidelines' recommendations
<ul style="list-style-type: none"> • Goals, principles of ART • ART drug Mechanisms • When to start ART • Pediatric HIV Infection and when to start ART • First line ART and Patient Follow-up and Monitoring • ART drug interactions • HIV and Pregnancy: Prevention of Mother-to-Child Transmission, ART during Pregnancy and ART in Pregnant Women with Previous Exposure to NVP • TB/HIV Co-infection (TB Infection Prevention, Active Case Finding, and Isoniazid Preventive Therapy) • HIV and Hepatitis, Co-infections • ART for PWID and PLHIV on Substitution therapy including opioid Substitution therapy (OST) • Antiretroviral drug toxicity management • What ART regimen to switch to (second-line ART) and Third-line ART 	<ul style="list-style-type: none"> • Arrange- dispense, record data, schedule follow-up • Communication, how to consult effectively, and clinical team work 	<ul style="list-style-type: none"> • Managing common co-infections and comorbidities <ul style="list-style-type: none"> ○ Prevention, screening and management of common co-infections ○ Prevention, screening and management of other comorbidities and chronic care for people living with HIV • Service delivery <ul style="list-style-type: none"> ○ Differentiated care and retention in care ○ Adherence ○ Frequency of clinic visits and medication pickup ○ Delivering HIV services to adolescents ○ Integrating and linking services • Monitoring and evaluation

Existing contents in the training manual of STAC (2015)	WHO Training Manual	WHO Guidelines' recommendations
<ul style="list-style-type: none"> • Nutrition and HIV • Community and Home-Based Care and Palliative Care • Adherence Counseling • HIV Testing and Counseling (HTC) and Provider Initiated Testing and Counseling (PITC) • Post exposure Prophylaxis • Public Private Partnership for ART • Entry into HIV care • Flow of patient at the ART center • Stigma and Discrimination • Introduction to Strategic information of HIV Services (monitoring, evaluation, surveillance and research) • Overview of ART Recording and Reporting 		

Curriculum

This proposed curriculum is aligned to meet the knowledge and skills set required to deliver quality ART services. Caution should be taken while finalizing the contents of the training so that it will include all the latest updates and recommendations from WHO.

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
1	Opening session	<ul style="list-style-type: none"> • Participants introduction • Pre test assessment 	To introduce participants with each other and to assess pre training knowledge	<ul style="list-style-type: none"> • Self introduction • Self administered questionnaires 	<ul style="list-style-type: none"> • Pre test questions 	45 minutes	Training facilitator	Participants will know each others; participants will fill in the pre test questionnaire.
2	Introduction	<ul style="list-style-type: none"> • Course structure, objective of the training, target audience • Level of knowledge and competency of the participants while providing ART services • HIV epidemic and its response • Global targets and commitments – ending AIDS epidemic by 2030 • Introduction Training methodology 	To inform and update on course structure, objective, situation of global and regional contexts on HIV including global commitments	<ul style="list-style-type: none"> • Power Point Presentation 	<ul style="list-style-type: none"> • Power points slides • Reference documents 	120 minutes	HIV Program Expert/Trainer	Participants will have updated information on course structure and objectives; global and regional situation of HIV including global commitments

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
3	HIV and its transmission	<ul style="list-style-type: none"> Types and subtypes of HIV Transmission of HIV Biological and socioeconomic factors facilitating transmission of HIV 	To provide information about types of HIV and its transmission	<ul style="list-style-type: none"> Power point presentation 	<ul style="list-style-type: none"> Power point slides Reference documents 	30 minutes	Program Expert on HIV	Participants will have Updated knowledge on types of HIV and its transmitting factors/conditions
4	Basic Immunology and Natural History of HIV and AIDS	<ul style="list-style-type: none"> Basics of the normal immune system. The HIV lifecycle and its effect on the immune system. Acute infection/seroconversion of HIV Stages of HIV disease progression. 	<p>To explain the basics of normal immune system.</p> <p>To explain HIV lifecycle and its effect on the immune system.</p> <p>To make participants understand the acute infection/seroconversion stage of HIV.</p> <p>To list the stages of</p>	<ul style="list-style-type: none"> Power point presentation Discussion Case study 	<ul style="list-style-type: none"> Power point slides Case story 	45 minutes	HIV clinical Expert	Participants will have knowledge of basic immunology and natural history of HIV and AIDS

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
			disease progression					
5	Diagnosis of HIV and HIV-Specific Laboratory investigations	<ul style="list-style-type: none"> Guiding principles of HIV testing Diagnosing HIV Algorithms for HIV testing, interpreting the results Early Infant Diagnosis (EID) and the algorithm for HIV testing in Children Tests for immunological and virological monitoring of HIV 	<p>To learn about the principles of Counseling and Testing for adult and children</p> <p>To list out various serologic and laboratory tests available for diagnosing HIV infection</p> <p>To identify the approaches in immunological and virological monitoring of HIV</p>	<ul style="list-style-type: none"> Power point presentation Group discussion and presentation 	<ul style="list-style-type: none"> Power point slides Flip chart and case story for group discussion Markers 	60 minutes	Program/clinical/laboratory expert in HIV	Participants will be updated on the provisions of diagnosis of HIV and laboratory monitoring of HIV
6	Clinical presentation and WHO staging	<ul style="list-style-type: none"> Clinical presentation of HIV Acute/primary HIV infection and its differential diagnosis WHO clinical staging of HIV 	To know about the clinical presentation and WHO staging of HIV	<ul style="list-style-type: none"> Power point presentation Case study Group discussion 	<ul style="list-style-type: none"> Power point slides Case story Flip chart and marker 	60 minutes	Clinical expert in HIV	Participants will be updated on clinical presentation and WHO staging of HIV

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
7	HIV related disease and cotrimoxazole prophylaxis	<ul style="list-style-type: none"> • Definition of opportunistic infection • PLHIV and OIs • Common OIs in Asia and SAARC member states • Prophylactic use of cotrimoxazole • Recommendations for cotrimoxazole preventive therapy • Protocols and regimen 	<p>To list out different OIs</p> <p>To explain the use of cotrimoxazole prophylaxis in OIs prevention</p>	<ul style="list-style-type: none"> • Power point presentation • Group discussion 	<ul style="list-style-type: none"> • Power point slides • Flip chart paper 	60 minutes	Clinical expert in HIV	Participants will have knowledge to identify OIs and provide cotrimoxazole prophylaxis
8	Comprehensive care of people living with HIV	<ul style="list-style-type: none"> • Purpose and components of a comprehensive care and treatment program • The HIV continuum of care, Cascade of Care • Management of HIV as a chronic disease • Importance and elements of standards of care • Opportunities within care and treatment programs to promote prevention (positive prevention, 	<p>To provide an opportunity for participants to explore issues and strategies involved in providing comprehensive care and treatment services.</p>	<ul style="list-style-type: none"> • Power point presentation • Discussion • Group work and presentation 	<ul style="list-style-type: none"> • Power point slides • Flip chart paper and markers for group work 	120 minutes	Program/clinical expert in HIV	Participants will have knowledge about the area of comprehensive care for PLHIV

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
		biomedical prevention) Programmatic issues in SAARC member states						
9	Respiratory manifestation of HIV	<ul style="list-style-type: none"> • Clinical presentation of HIV • Acute/primary HIV infection and its differential diagnosis • WHO clinical staging of HIV 	To list etiological agents and clinical presentation of different respiratory manifestation of HIV	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides 	45 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify respiratory manifestation of HIV
10	Neurological Manifestations of HIV	<ul style="list-style-type: none"> • Etiological agents that cause neurological manifestations • Clinical presentation and diagnosis and treatment of specific neurological disorders 	To list etiological agents and clinical presentation, diagnosis and treatment of neurological disorders	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides 	60 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify and manage neurological disorders
11	Gastrointestinal Manifestations of HIV	<ul style="list-style-type: none"> • Etiological agents that cause gastrointestinal manifestations • Clinical presentation of gastrointestinal manifestations and management 	To list etiological agents and clinical presentation, and management of gastrointestinal manifestation	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides 	60 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify and manage gastrointestinal manifestation

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
12	Dermatological manifestations of HIV	<ul style="list-style-type: none"> Etiological agents that cause dermatological manifestations Clinical presentation and management of common skin lesions or infections 	To list etiological agents and clinical presentation, and management of dermatological manifestations	<ul style="list-style-type: none"> Case study Discussion Power point presentation 	<ul style="list-style-type: none"> Flip chart paper and markers Power point slides 	60 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify and manage dermatological manifestations
13	Lymphadenopathy and Fever in HIV Disease	<ul style="list-style-type: none"> Cause for lymphadenopathy Introduction to lymphadenopathy Tubercular lymphadenopathy Persistent generalized lymphadenopathy Fever of unknown origin 	To identify the etiology of lymphadenopathy and fever and plan their management	<ul style="list-style-type: none"> Case study Discussion Power point presentation 	<ul style="list-style-type: none"> Flip chart paper and markers Power point slides 	60 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify and manage Lymphadenopathy and fever associated with HIV
14	Sexually transmitted infection and HIV	<ul style="list-style-type: none"> Etiologies and clinical features of STIs Treatment and management STIs Diagnosis and management of STIs in men who have sex with men and SW 	To understand the etiologies and clinical features of STI and provide treatment. To diagnose and manage STI in key	<ul style="list-style-type: none"> Case study Discussion Power point presentation 	<ul style="list-style-type: none"> Flip chart paper and markers Power point slides 	60 minutes	Clinical expert in HIV/STI	Participants will have updated knowledge and skill to identify and manage STI

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
			population at higher risk of HIV (MSM and SW)					
15	Gynecological manifestation of HIV	<ul style="list-style-type: none"> • Common manifestations of gynecological infections • Clinical features of each infection • Treatment and management of gynecological manifestations 	To identify major gynecological manifestation and manage those manifestations	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides 	60 minutes	Gynecologist/Clinical expert in HIV/STI	Participants will have updated knowledge and skill to identify and manage gynecological manifestation of HIV
16	Ophthalmologic Manifestations of HIV	<ul style="list-style-type: none"> • Common ophthalmologic disorders related to HIV • Common HIV related etiological agents involved in ophthalmologic disorders and their clinical presentation 	To identify and manage common ophthalmologic disorders in HIV	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides 	30 minutes	Ophthalmologist/Clinical expert in HIV/STI	Participants will have updated knowledge and skill to identify and manage ophthalmologic manifestation of HIV
17	Goals, Principles and Mechanisms of Antiretroviral treatment. When to Start ART in Adults	<ul style="list-style-type: none"> • Goals of ART • List key considerations in the management of chronic HIV illnesses • Collateral benefits of ART, the obstacles for ART programs 	To know about the goal of ART To understand the benefit and working mechanism drugs used in	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation • Observation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point 	90 minutes	Clinical expert in HIV	Participants will have updated knowledge and skill to identify and manage ophthalmolog

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
		<ul style="list-style-type: none"> and the prerequisites for scaling up • Mechanism of action of ARVs • Dosages and administration of ARVs • Use of ARV for HIV prevention • ART initiation • Objectives of the clinical evaluation for ART • National recommendations for starting ART in SAARC member states 	<p>ART</p> <p>To explain why, when and how to start ART</p> <p>To describe dosage, administration and monitoring of ART</p>		<ul style="list-style-type: none"> slides • Samples of the ARV drugs 			ical manifestation of HIV
18	First Line Therapy, Patient Follow-up and Monitoring	<ul style="list-style-type: none"> • First line ARV drugs • Clinical monitoring, baseline laboratory tests, immunological monitoring, virological monitoring • Monitoring for tolerability, efficacy, toxicity and resistance to ARVs 	<p>To identify the first line ARV drugs recommended in the country</p> <p>To explain what to monitor in client on ART</p>	<ul style="list-style-type: none"> • Case study • Discussion • Power point presentation • Observation 	<ul style="list-style-type: none"> • Flip chart paper and markers • Power point slides • Samples of the ARV drugs 	75 minutes	Clinical expert in HIV	Participants will have updated knowledge on available first line ARV drugs and monitoring of clients on ART
19	Switching ARVs	<ul style="list-style-type: none"> • Reasons for changing therapies • Treatment failures • Choices for second- 	To identify the reasons for changing therapies and	<ul style="list-style-type: none"> • Case study • Group discussion 	<ul style="list-style-type: none"> • Flip chart paper and 	75 minutes	Clinical expert in HIV	Participants will be skilled in identifying and switching

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome
		<ul style="list-style-type: none"> line ARV regimens • Limitations for selecting alternative therapy 	switch to second line regimens		marker s			ARV regimen when required
20	Side Effects and Toxicity of ARVs	<ul style="list-style-type: none"> • Toxicities and common side effects of each ARVs • Monitoring and managing toxicities and side effects of ARVs • Class specific adverse drug reactions of ARVs • Immune reconstitution inflammatory syndrome. 	To identify side effects of different ARV drugs and manage such side effects and toxicities	<ul style="list-style-type: none"> • Case study • Group work • Individual exercise 	<ul style="list-style-type: none"> • Flip chart paper and marker s • Individual exercise sheets 	60 minutes	Clinical expert in HIV	Participants will be skilled in identifying and managing side effects and toxicities associated with ARV drugs
21	Anti-retroviral Drug Interactions	<ul style="list-style-type: none"> • Use of case studies and drug interaction tables • Interactions of between ARVs, interactions of ARV with other drugs treating OIs and drugs used for OST • Understand the mechanisms of drug interactions 	To know ARV drug interactions, its mechanism and take necessary remedial actions	<ul style="list-style-type: none"> • Case study • Group work • Individual exercise 	<ul style="list-style-type: none"> • Flip chart paper and marker s • Individual exercise sheets 	45 minutes	Clinical expert in HIV	Participants will have updated knowledge on ARV drugs interaction, its mechanism and required remedial actions.
22	Adherence Counseling	<ul style="list-style-type: none"> • Importance of adherence and retention 	To calculate adherence level and gain	<ul style="list-style-type: none"> • Case study • Group work • Individual 	<ul style="list-style-type: none"> • Flip chart paper 	75 minutes	Clinical expert in HIV/Expert	Participants will have updated

SN	Topic	Sub-topics	Objectives	Methodology	Required Materials	Duration	Capacity to deliver the content	Expected Outcome	
		<ul style="list-style-type: none"> Assessment of the individual barriers to adherence and retention Calculating the individual client's adherence Strategies for overcoming adherence and retention related problems Practicing adherence counseling via role play 	skill in providing adherence counseling	<ul style="list-style-type: none"> exercise Role play 	<ul style="list-style-type: none"> and markers Individual exercise sheets 		Counselor	knowledge on calculating ARV drug adherence and skilled in providing adherence counseling	
23	Pediatric Infection	HIV	<ul style="list-style-type: none"> HIV epidemic in pediatric population Clinical presentation of HIV in children Follow-up and immunization for HIV-exposed and HIV-infected children Recommendations for infant feeding in the context of HIV 	To learn about the natural course of HIV disease specifically in children and its diagnosis	<ul style="list-style-type: none"> Power point presentation Case study Group work 	<ul style="list-style-type: none"> Power point slides Flip chart paper and markers Individual exercise sheets 	75 minutes	Pediatrician/ Clinical expert in HIV/	Participants will have updated knowledge on natural course of HIV and its diagnosis among children

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24	Pediatric ART	<ul style="list-style-type: none"> Initiation of ART in children National recommendations of initiating ART First and second line ART Regimen for children Pediatric drug preparations Monitoring response to ART in children Specific adherence challenges in children 	To describe initiation of ART, its monitoring and adherence challenges in children	<ul style="list-style-type: none"> Power point presentation Case study Group work 	<ul style="list-style-type: none"> Power point slides Flip chart paper and markers 	60 minutes	Pediatrician/ Clinical expert in HIV/	Participants will have updated knowledge on administration of ARV, its monitoring and adherence among children
25	Tuberculosis and HIV Co-infection: TB and ART	<ul style="list-style-type: none"> Relationship between TB and HIV Clinical presentations of TB in HIV positive clients Management of TB HIV co-infection Intensive case finding TB screening TB Infection prevention for HIV positive clients Isoniazid Preventive Therapy 	<p>To identify and manage TB HIV co-infection</p> <p>To conduct TB screening among PLHIV</p> <p>To provide isoniazid preventive therapy to PLHIV</p>	<ul style="list-style-type: none"> Power point presentation Case study Group work 	<ul style="list-style-type: none"> Power point slides Flip chart paper and markers Screening questionnaire 	60 minutes	Clinical expert in HIV	Participants will have updated knowledge on TB HIV co-infection management and isoniazid preventive therapy for PLHIV
26	Post exposure	<ul style="list-style-type: none"> Issues and concerns 	To explain	<ul style="list-style-type: none"> Power point 	<ul style="list-style-type: none"> Power 	60	Clinical	Participants

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	prophylaxis	<p>that healthcare workers might have about working with HIV infected persons.</p> <ul style="list-style-type: none"> • Managing occupational exposure to HIV • PEP in sexual assault and other non-occupational exposure • PEP regimens • Helping healthcare workers overcome fears and biases while working 	about provision of post exposure prophylaxis in occupational exposure and sexual assault	<p>presentations</p> <ul style="list-style-type: none"> • Group discussions 	<p>point slides</p> <ul style="list-style-type: none"> • Flip chart paper and markers 	minutes	expert in HIV	will have updated information on provision of post exposure prophylaxis, its regimen and use
27	Pre-exposure prophylaxis	<ul style="list-style-type: none"> • What is PrEP? Why it is needed? • Effectiveness of PrEP • Guidelines for using PrEP and its effectiveness • Risk associated with PrEP 	To explain about the provision of pre-exposure prophylaxis and its associated risks	<ul style="list-style-type: none"> • Power point presentation • Group discussion 	<ul style="list-style-type: none"> • Power point slides • Flip chart papers 	60 minutes	Clinical expert in HIV	Participants will have updated information on provision of pre-exposure prophylaxis and its associated risks
28	HIV and Pregnancy: Prevention of Mother-to-Child Transmission and	<ul style="list-style-type: none"> • Four prongs of Prevention of Mother to child transmission of HIV • HIV in pregnancy 	To understand and describe PMTCT and to list drug regimens for	<ul style="list-style-type: none"> • Power point presentation • Group discussions 	<ul style="list-style-type: none"> • Power point slides • Flip charts 	60 minutes	Gynecologist/Clinical expert in HIV	Participants will have updated knowledge of PMTCT

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	ART during Pregnancy	<ul style="list-style-type: none"> • MTCT of HIV, factors that may increase and reduce transmission • ART for PMTCT • Drug regimens for ART in pregnancy 	ART in pregnancy					prongs and ART for PMTCT
29	CHBC and Palliative care	<ul style="list-style-type: none"> • Introduction to Community and home-based care • Service delivery approaches of community home-based care. • Essential elements and principles of CHBC • Major factors to address when assessing potential CHBC clients and families • Palliative care and its goal • Assess various pain and the barriers to its management • Interdisciplinary team approach for palliative care 	<p>To learn about the approaches and elements of CHBC</p> <p>To learn the management of pain and associated factors as part of palliative care</p>	<ul style="list-style-type: none"> • Power point presentation • Group discussions 	<ul style="list-style-type: none"> • Power point slides • Flip charts 	60 minutes	Clinical/CHBC expert in HIV	Participants will have updated knowledge on CHBC and palliative care their provision on providing HIV care and support
30	Nutrition and HIV	<ul style="list-style-type: none"> • Interaction between HIV and nutrition 	To understand the role of nutrition in	<ul style="list-style-type: none"> • Power point presentation 	<ul style="list-style-type: none"> • Power point 	60 minutes	Clinical/Nutrition expert in HIV	Participants will have updated

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		<ul style="list-style-type: none"> • Clinical context of how infectious diseases influence nutritional status including vicious cycle of micronutrient deficiencies and HIV pathogenesis • Symptoms and causes of poor nutrition • Processes that lead to weight loss and wasting • Role of vitamins and minerals in the body and locally available sources of these micronutrients. • Nutritional assessment for children and adults. 	people living with HIV and to provide skill in conducting nutritional assessment for children and adults	<ul style="list-style-type: none"> • Group discussions 	<ul style="list-style-type: none"> • slides • Flip charts and markers 			knowledge on the role of nutrition in PLHIV and acquire skill in conducting nutritional assessment for children and adults
31	Viral hepatitis and HIV	<ul style="list-style-type: none"> • Epidemiology of viral hepatitis /HIV co-infection. • Influence of viral hepatitis on progression of HIV • Influence of HIV on progression of viral hepatitis 	To learn about HIV co-infection with Hepatitis B and C and administer appropriate management	<ul style="list-style-type: none"> • Power point presentation • Group discussions • Case study 	<ul style="list-style-type: none"> • Power point slides • Flip charts and markers 	75 minutes	Hepatologist /Clinical expert in HIV	Participants will have updated knowledge on HIV and Hep B/Hep C co-infection and their management

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		<ul style="list-style-type: none"> Approaches to HCV and HBV treatment in the context of HIV infection Appropriate ART regimen and monitoring liver function Importance of preventing blood-borne virus transmission in co-infection 						
32	Stigma and discrimination	<ul style="list-style-type: none"> Issues related to stigma and discrimination PLHIV perspective on stigma and discrimination Combating stigma and discrimination Developing personal plan to combat stigma and discrimination 	To learn about different types of stigma and discrimination to PLHIV and develop a personal plan to combat such situations	<ul style="list-style-type: none"> Experience sharing Power point presentation 	<ul style="list-style-type: none"> Power point slides Flip charts and markers 	30 minutes	Counselor trained in S&D	Participants will have updated knowledge on HIV related stigma and discrimination
33	Monitoring, evaluation, surveillance and research	<ul style="list-style-type: none"> Basic elements of strategic information, difference between M&E, Surveillance and Research General overview of M&E framework and M&E data needs 	To describe the basics of M&E, surveillance and research in HIV	<ul style="list-style-type: none"> Power point presentation Group exercise 	<ul style="list-style-type: none"> Power point slides Flip chart, meta cards 	60 minutes	Strategic Information Expert	Participants will have updated knowledge on HIV related M&E, surveillance and research

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34	Overview of ART recording and reporting	<ul style="list-style-type: none"> • Importance of standard recording and reporting tools • Key indicators collected at the national level • HIV-related Recording and reporting requirements 	To list out the recording and reporting tools used in ART	<ul style="list-style-type: none"> • Power point presentation • Group exercise 	<ul style="list-style-type: none"> • Power point slides • Flip chart, meta cards 	60 minutes	Strategic Information Expert	Participants will have updated knowledge the needs of recording and reporting and the available tools
35	Post test assessment and closing	<ul style="list-style-type: none"> • Post test assessment • Formal closing of the training 	To conduct post test assessment and close the training session	<ul style="list-style-type: none"> • Post test assessment 	<ul style="list-style-type: none"> • Post test assessment questionnaire 	30 minutes	Facilitator	Participants will fill in the post test assessment questionnaire

References

1. UNAIDS. Global HIV & AIDS statistics — 2018 fact sheet. 2018.
2. Centre STaHA. SAARC EPIDEMIOLOGICAL RESPONSE ON HIV/AIDS. 2016.
3. Ritchie MRaH. HIV / AIDS: Our World in Data; 2018 [Available from: <https://ourworldindata.org/hiv-aids>].