2078

STI Services Assessment at the Public Health Facility in Bagmati Province

Government of Nepal
Ministry of Health and Population
National Centre for AIDS and STD Control
Teku, Kathmandu

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ACKNOWLEDGEMENT

The Government of Nepal started response to HIV/AIDS endemic in 1995 with release of National policy on AIDS and STI Control with commitment to provide free effective treatment for HIV/AIDS and sexually transmitted infection (STI).

Today the HIV epidemic is under good control nationally. We have the lowest incidence of HIV since the first case of HIV was detected in Nepal. The HIV response in Nepal is the best example of how the government, partners, donor, civil societies, and communities work together to achieve better results and make measurable impact.

Sexually Transmitted Infection (STI) is the major public health problem affecting millions of lives across the globe annually. An estimated 374 million cases of curable sexually transmitted infections occur annually worldwide. STIs are associated with increased acquisition and transmission of HIV and can lead to chronic disease, birth complications, infertility, cancer, and death.

I hope the findings from the "The STI assessment at the public health facility in Bagmati Province" will provide recommendations to plan the National STI program by addressing gaps in effective implementation of the services provided. It will set a baseline for conducting more comprehensive national assessment of STI services. The assessment has highlighted the key interventions area where more improvements are required which needed an urgent action. We are fully committed to provide quality health services for sexually transmitted infection and invest in system to strengthen the services.

I want to congratulate the NCASC technical teams for their contribution in successful completion of the assessment. I also want to thank the Communicable Disease Unit - WHO for providing technical support in conducting this assessment.

Dr Sudha Devkota
Director

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Anti-retroviral therapy
BCC	Behavioral Change Communication
CT	Chlamydia Trachomatis
DDA	Department of Drugs Administration
FSW	Female Sex Workers
HPV	Human Papilloma Virus
HTC	HIV Testing and Counseling
HTS	HIV Testing Service
IBBS	Integrated Biological and Behavioral Surveillance surveys
IEC	Information Education Communication
IHMIS	Integrated Health Management Information System
LAPS	Lower Abdominal Pain Syndrome
MCH	Maternal and Child Health
MSM	Men who have Sex with Men
MSW	Male Sex Workers
MoHP	Ministry of Health and Population
NAAT	Nucleic Acid Amplification Test
NGOs	Non-Governmental Organizations
NCASC	National Center for AIDS and STD control
OPD	Out-Patient Department
PEPFAR	President's Emergency Plan for AIDS Relief
PID	Pelvic Inflammatory Disease
PLHIV	People Living with HIV
PWID	People Who Inject Drugs
STDs	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
VDS	Vaginal Discharge Syndrome
WHO	World Health Organization

Executive Summary

INTRODUCTION

Sexually Transmitted Infection (STI) is the major public health problem affecting millions of lives across the globe annually. An estimated 374 million cases of curable sexually transmitted infections occur annually worldwide. STIs are associated with increased acquisition and transmission of HIV and can lead to chronic disease, birth complications, infertility, cancer, and death.

While the estimated burden of STI is rising globally, only limited numbers are being reported in the national health systems in Nepal. The estimates of STIs are mostly available for the surveys conducted among key populations like people who inject drugs, female sex workers, men who have sex with men, and transgender, while study among the general adult populations are limited. STI services are recommended at all the health facilities and National STI treatment guideline recommends syndromic approach to management and care for STIs. However, low reporting of STI cases in the national system, low priority of STIs intervention in the national policy, and stigma associated with STI infections has significantly impacted the STI services and program implementation in Nepal. This assessment aims to understand the availability and quality of STI services at the public health facilities. It further explores about the perception of STI service providers and patients seeking STI services.

METHODS

This was a mixed method assessment of STI services utilizing cross-sectional study, and qualitative interviews with the services providers and patients. The assessment was conducted between September 2021 to November 2021 in 15 public health facilities purposively selected from five districts (Kathmandu, Lalitpur, Bhaktapur, Kavre and Dhading) of the Bagmati province including different tiers of the facilities ranging from health posts to tertiary care hospitals.

The list of health facility selected are as below:

Kathmandu	Kavre	Lalitpur	Bhaktapur	Dhading
1. Bir Hospital	5. Dhulikhel PHCC	7. Bajrabarahi PHCC (recently upgraded to hospital)	10. Bhaktapur Hospital	13. Dhading Hospital
2. Maternity Hospital	6. Khopasi PHCC	8. Badegaun PHCC	11. Duwakot HP	14. Naubise HP
3. Mulpani PHCC (recently upgraded to hospital)		9. Lele PHCC	12. Katunje HP	15. Gajuri PHCC
4. Gokarna PHCC (recently upgraded to hospital)				

At all the health facilities, the assessment ascertained the availability of STI medications and laboratory tests; capacity of service providers on managing STI cases, availability of condoms and partner notification system; basic facility infrastructure for STI services; the presence or absence of STI guidelines, policies, and procedures; and data recording and reporting of STI cases at the facility level. In-depth interviews among service providers and STI patients were conducted using discussion guides and the content were analyzed based on thematic analysis.

KEY FINDINGS

As per the national strategy on HIV program, one of the key components is detection and management of STI up to the health post level. During the assessment, it was observed that only limited STI related health services were available in each of the health facility. Drugs for management of STI are listed under essential drugs list and were supplied and distributed free of cost from HPs and PHCCs, however, they were often out of stocks at the PHCC and HPs as they were not supplied in regular and consistent manner. Benzathine penicillin, the first line drug to treat the syphilis was not available in all health facilities except in Dhading district hospital.

It was also observed that health facilities were found to be providing STI services for patients through general OPD, ANC, family planning and ART centers. As most of the health facilities visited did not have separate space for the STI clinic, most of the STI patients especially male were reluctant to share their problems.

Service providers on the other hand were also not confident on with the syndromic approach of STI management. The major constraint was none of the health facilities had STI trained service providers in place for management of STI problems. The services being offered were basically based on service provider's knowledge and training which they had received long time back. The health

facility also lacked guidelines/SoP and flowcharts for STI case management.

All health facilities except Duwakot health post was equipped with lab facility and many HPs and PHCCs did not offer lab services for STI diagnosis. Only 8 health facility (53%) had a screening test kits available for syphilis. Gram stain could only be done at the 3 health facility (20%). The service charge for lab services also varied by the health facility.

STI cases were not properly recorded and reported in the Integrated Health Management Information System (IHMIS). Although it is mandated to report details about the STI cases, it was observed that none of the health facility reported STI cases in the IHMIS in 2077/2078. STI cases were also recorded in different IHMIS forms in general OPD, maternal and newborn health registers, family planning records thus, making it difficult to ascertain exact estimates of STI cases.

STI related counseling were being provided by service providers without any training in STI counseling, and in four health facilities with ART centers it was being done by ART trained counselors. Although the service providers were aware about partner notification and follow up, it was not much emphasized. STI related information, education and counseling materials were not available in any of the health facilities to support counseling and STI awareness.

Service providers expressed that they were willing to provide effective STI service provided that they were given proper training, and regular supply of drugs and logistics are ensured. Similarly, patients seeking STI services were satisfied with service providers and STI services.

CONCLUSION AND RECOMMENDATIONS

This evaluation of STI services found significant gaps in provision of comprehensive STI care, specifically related to availability of STI essential drugs, laboratory tests, preventive and counselling services, condoms provision, capacity of health workers in managing STI cases and quality in data recording and reporting of the STI cases from health facility. The assessment also showed a need of capacity development of service providers on STI case management through regular trainings and assign STI focal point at the health facility. The assessment also recommends adequate and consistent supply of STI drugs, recommended STI screening laboratory services as well as focus on health promotion and preventive activities for STIs including provision of condoms and BCC/IEC materials to the STI patients. Partner notification should be standardized with proper mechanism for confidentiality concerns and provision of patient follow-up and education. The monitoring and evaluation of the STI services should further strengthen to ensure the quality of STI services as well as improving the recording and reporting the STI cases.

1

Background

1. BACKGROUND

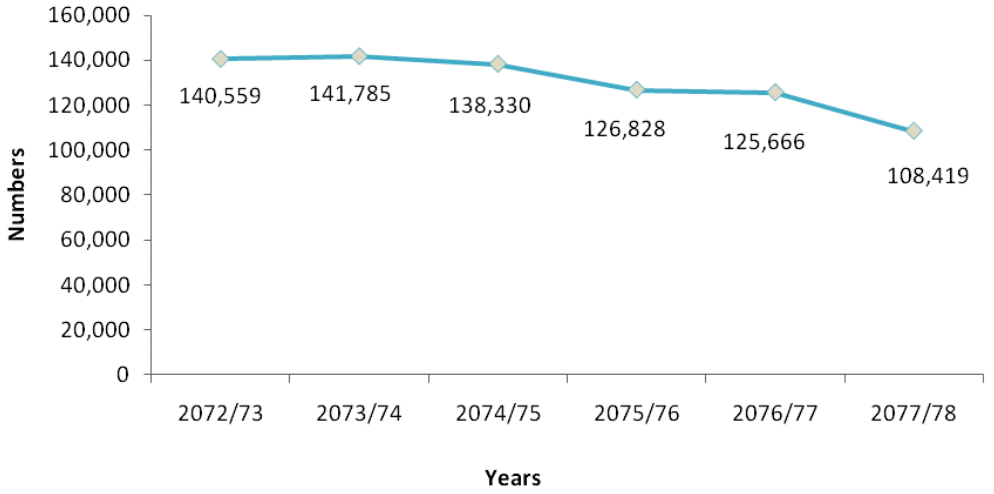
Sexually Transmitted Infections (STI) is a global health issue and continues to be a public health problem due to its morbidity, mortality and associated impact on quality of life. According to World Health Organization (WHO) estimates of 2021, there are around 374 million new cases of curable STI annually across the globe, and more than 1 million cases every day (1). Estimates suggest that STI account for 2.3 million deaths every year across the world (2). At South East Asian region, STI and their complications are common. Gonorrhea, chancroid, nongonococcal urethritis, trichomoniasis and syphilis continue to be the major STI while viral STIs like human papilloma virus (HPV) and Genital Herpes infection is in the increasing trend (3). Although STI are primarily transmitted through sexual intercourse, they can also be transmitted from mother to child during pregnancy and childbirth and occasionally via blood and blood products. STI in pregnant women can lead to serious consequences like infertility, ectopic pregnancy, cervical cancer, as well as infant morbidity and mortality.

1.1 Epidemiology of STI in Nepal

STI is one of the less explored health issues and researched areas in Nepal. Majority of the STI related studies are focused on HIV infection among the risk populations. The data pertaining to STI prevalence among general population are extremely limited in Nepal. Majority of the data are generated from periodic key population-based pocket studies and Integrated Biological and Behavioral Surveillance (IBBS) surveys.

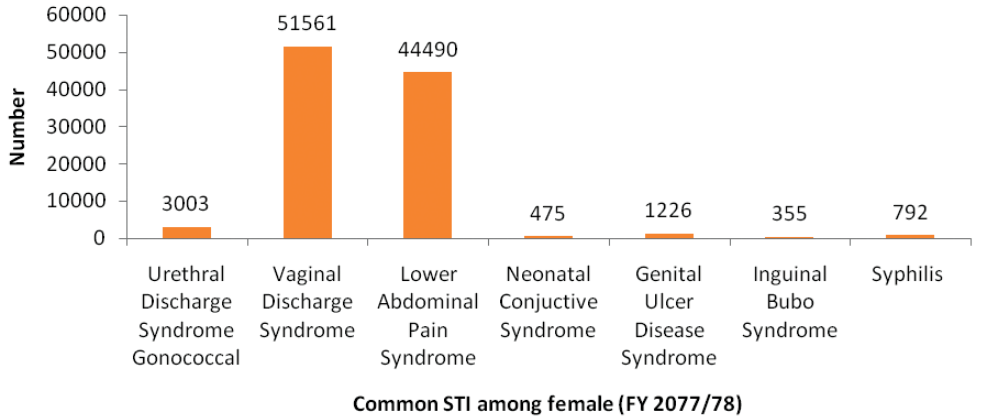
According to national Integrated Health Management Information System (IHMIS) data, there were 108,419 annual reported cases of STI in the fiscal year 2077/78 (4). The trend of STI seems to be slowly decreasing in Nepal as per the reported data of IHMIS in the past five years. The trend of STI cases (reported) in Nepal is given in Figure 1.

Figure 1: Annual reported cases of STIs in IHMIS



Source: Annual Report, Department of Health Services and IHMIS/DHIS2, FY 2077/78

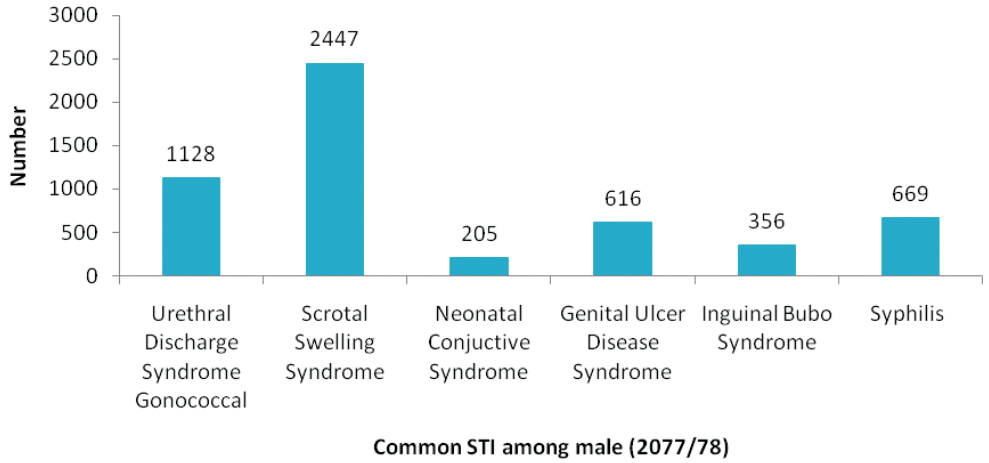
Figure 2: Sexually transmitted infections among female in Nepal



*Source: IHMIS/DHIS2, FY 2077/78 *Excluding HIV infections*

STI cases are treated based on the syndromic approach in the public health facility unless specific diagnosis is required for the treatment. The most common STI among female is vaginal discharge syndrome (VDS) followed by lower abdominal pain syndrome (LAPS) and genital ulcer disease syndrome.

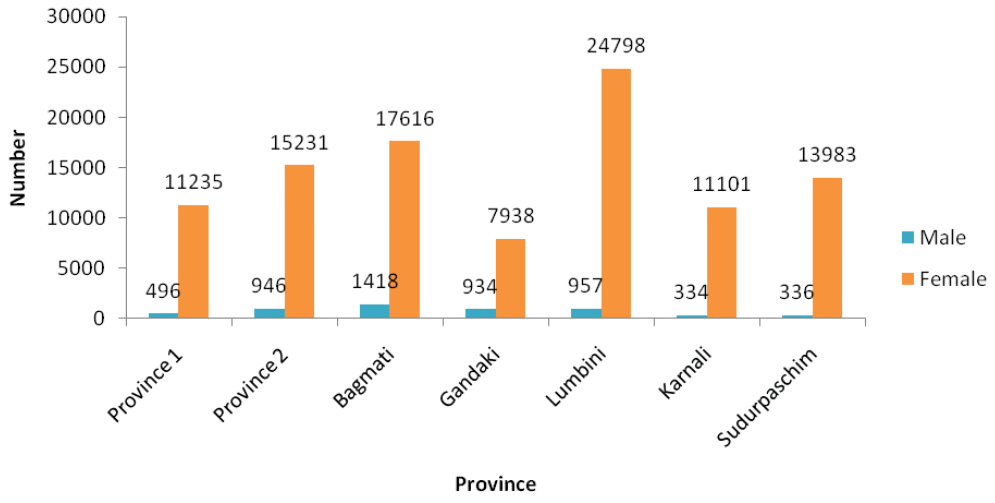
Figure 3: Sexually transmitted infections among male in Nepal



*Source: IHMIS/DHIS2, FY 2077/78 *Excluding HIV infections*

Scrotal swelling syndrome is the common STI among male followed by urethral discharge syndrome, syphilis and genital ulcer disease syndrome

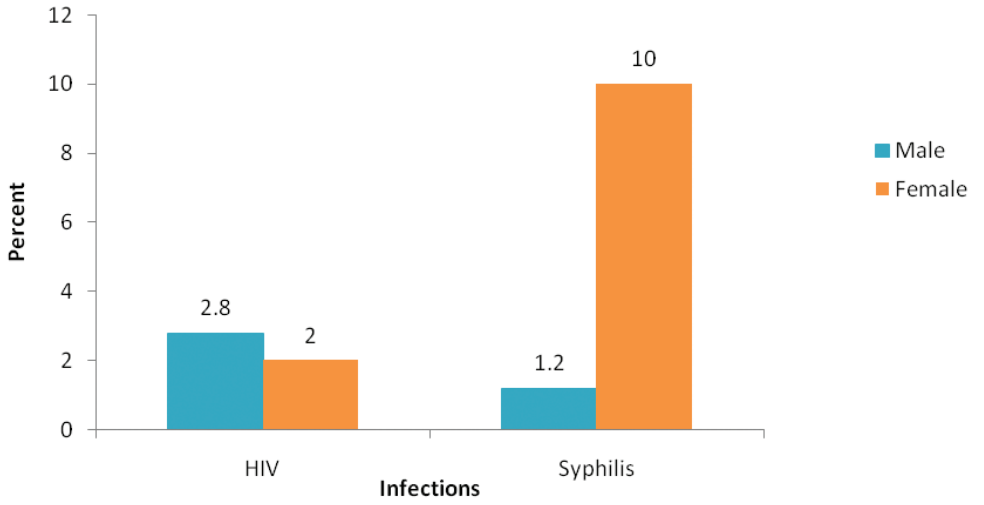
Figure 4: Province and Gender wise distribution of STI in Nepal



*Source: IHMIS/DHIS2, FY 2077/78 *Excluding HIV infections*

The burden of STI is higher among female than male at all the provinces and is highest in Lumbini province (Fig 4).

Figure 5: Prevalence of HIV and Syphilis among PWID



Source: IBBS survey among PWID, 2020

The IBBS survey of 2020 (5), among 1840 male who inject drugs and 150 female who inject drugs reported that the prevalence of HIV was higher among male who inject drugs, while the prevalence of Syphilis was at 10 percent and found higher among female who inject drugs.

Nepal Demographic Health Survey (NDHS) in 2016 showed that 15% of reproductive age women and 2% of men between 15-49 years who had ever had sex were presented with STI and/or with symptoms in the last 12 months preceding the survey (6).

A prevalence survey conducted among 591 pregnant women visiting antenatal care (ANC) center of Dhulikhel hospital in 2020 to determine the prevalence of Chlamydia Trachomatis (CT), Neisseria Gonorrhea, Syphilis, Trichomoniasis and HIV reported that prevalence of any STI among women attending ANC was 8.6%. The prevalence of CT and Trichomoniasis was 1.5% and 7.1% respectively. No cases of Neisseria Gonorrhea, Syphilis and HIV were reported in the study. STI was more common among housewives and among primigrivida (7).

A study conducted among 340 MSM/TG to assess the HIV/STIs prevalence in eight highway districts of Nepal reported 8% prevalence of Syphilis and 11% prevalence of Chlamydia (8). Another cross sectional study conducted to assess the availability and readiness of 963 health facilities to provide STI and HIV Testing and Counseling (HTC) services across the country revealed that 73.8% of the health facilities provided STI services and only around 5.9% provided HTC services (9). The readiness score for STI service in that study was reported at 26.2%.

1.2 National health system for Sexually Transmitted Disease

The national response to HIV and STI in Nepal started with the National policy on Acquired Immunodeficiency Syndrome (AIDS) and Sexually Transmitted Diseases (STDs) control in 1995. This policy was revisited and updated in 2011. The National HIV Strategic Plan 2016-2021 is being implemented to attain the achievement of 90-90-90 targets. A joint 2016 country report of Ministry of Health and Population (MoHP) and National Center for AIDS and STD control (NCASC) has set a target to eliminate congenital syphilis by 2021 (10).The National Health Sector Strategy-implementation plan 2016-2021, has envisioned that the standardization and quality STI diagnosis and treatment up to the health post level will be expanded in 700 sites by the end of 5 year of the strategy (11).

NCASC provides training on HTC for service providers at both public and non-governmental organizations (NGOs) run HIV Testing Service (HTS) sites. Case management of STI is also key component of the training. Standardization of quality diagnosis and treatment of STI up to health post level as a part of primary health care service has been a key strategy in the national response and foresees standardization of syndromic approach with referral for etiological diagnosis of STI as needed. NGO run STI clinics with focus on the key populations have been operating across the country with linkage to the national health system (12).

The National Guideline on "Case Management of Sexually Transmitted Infections" was updated in 2014 by NCASC (13). Based on the new global recommendations (2021) and local evidences on STI management, NCASC is currently updating the 2014 STI guideline. The guideline will enable service providers in providing effective treatment and obtain cure, treat asymptomatic patients and/or subclinical infections, preventing or reducing future risk-taking behavior and ensuring that the sexual partners are appropriately traced and treated. Furthermore, National HIV Testing and Treatment Guideline 2020 is also being used in the country (14) which recommends screening, diagnosis and treatment of STI for risk populations to be an integral part of HIV programme. Key strategies in the national response to HIV in the context of STI are presented in Box 1(12):

Box 1: Key strategies for control of STI

1. Detection and Management of Sexually Transmitted infections up to the health post and sub-health post level as a part of primary health care services.
2. Standardization of syndromic approach with the referral for etiological treatment when needed.
3. Strengthening documented linkages (referral of follow-up mechanisms) between behavioral change communication (BCC) services and HIV testing and counseling, including strengthening of linkage between HTS and STI services

1.3 STI services

STI diagnosis and treatment services have been scaled up to the health post (HP) level in Nepal. Syndromic approach for STI management is implemented by service providers and recurrent and complicated cases are referred to higher centers for etiological treatment of STI. As the tools for etiologic diagnosis are not available in the public health facilities, syndromic approach for STI diagnosis and treatment has been recommended in line with the National Guidelines.

Syphilis, HIV and Hepatitis-B are part of routine screening for pregnant women in antenatal checkups at public health facilities (13). All the public health facilities from HP, Primary Health Care Center (PHCC), district/regional hospitals to tertiary level hospitals are mandated to provide STI services. The public health facilities should have the essential drugs and includes the following drugs (Box 2) for the treatment of common STIs (15).

Box 2: List of essential drugs for treatment of common STIs (15)

1. Azithromycin
2. Benzathine Penicillin
3. Cefixime
4. Ceftriaxone
5. Doxycycline
6. Metronidazole
7. Acyclovir
8. Fluconazole

Along with the public health facilities, STI service in the country is also being delivered by NGOs supported clinics and private health facilities. There are different NGOs supported STI clinics for comprehensive HIV prevention, treatment care and support program in 26 districts in Terai highway districts sharing an open border with India, Kaski and Kathmandu district under EpiC (The Meeting Targets and Maintaining HIV Epidemic Control) project with the support of US President's Emergency plan

for AIDS relief (PEPFAR) specifically targeted towards key populations like female sex workers (FSW), men who have sex with men (MSM)/male sex workers (MSW), people who inject drugs (PWID) and their partners/clients. These clinics are providing STI services focused for key populations with behavior change intervention, including provision of condoms, HIV testing and counseling, diagnosis and treatment of STI and proper coordination and networking for referral services.

1.4 STI data recording and reporting

The IHMIS under the MoHP is responsible for data management from all the health facilities in the country. In anti-retroviral therapy (ART) centers, STI cases are recorded in the IHMIS 7.2 registers. For monthly reporting of STI cases at HP and PHCCs completes the IHMIS 9.3 (HIV section) form. Similarly, district and tertiary care hospitals reports the STI cases in the IHMIS 9.4 (HIV section) form. The STI cases treated by syndromic approach are recorded and reported in the IHMIS as: urethral discharge, scrotal swelling, vaginal discharge, lower abdominal pain, genital ulcer disease, inguinal bubo and neonatal conjunctivitis syndrome.

1.5 STI surveillance

STI surveillance is important to monitor trends of STI and planning STI control efforts. Besides, STI surveillance also provides information for HIV programme as STI is closely associated with HIV transmission. The epidemiologic burden of STIs in Nepal is obtained through the following mechanism(16):

a. Case reporting of HIV and STI in IHMIS: HIV testing and counseling sites, prevention of mother to child transmission sites, ART centers and other HIV/STI service sites.

b. IBBS surveys: Periodically conducted in the key populations through pocket and nationwide surveys.

c. HIV infection estimations and projections: Nepal updates HIV infection estimates annually using available biological and behavioral data, routine program data, key population size estimates and other relevant key information from different studies using Asian Epidemic Model and Spectrum.

2

Rationale for conducting the STI assessment

Cases of STI are underreported, under diagnosed and their sequel are seen in the maternal, child or cancer morbidity and mortality statistics (17). The studies on STIs are also limited. The last nationwide STI review was done in 2006 by NCASC/WHO/UNAIDS (18) and similar STI review was done in Parsa and Makwanpur districts of central region in the same year by an independent body (19). Limited evidence on STI prevalence is available from IBBS surveys and NGOs supported program primarily focused among key populations.

The STI disease burden among general population is difficult to estimate and there is limited information about STI services that are being delivered from the public health facilities and under-reported to the IHMIS. The information on the quality of STI services are also limited in nature and significant time has been passed after the last STI review in 2006. Thus, this assessment will add on to the evidence gap of information for the STI program in Nepal. The overall objectives of the assessment are to explore:

i. Availability and quality of STI services at the public health facilities;
ii. Status of STI recording and reporting at the public health facilities;
iii. Measures taken by the public health facilities to manage and prevent transmission of STI;
iv. Perception of service providers regarding STI services;
v. Satisfaction of patients regarding STI services.

3

Methodology

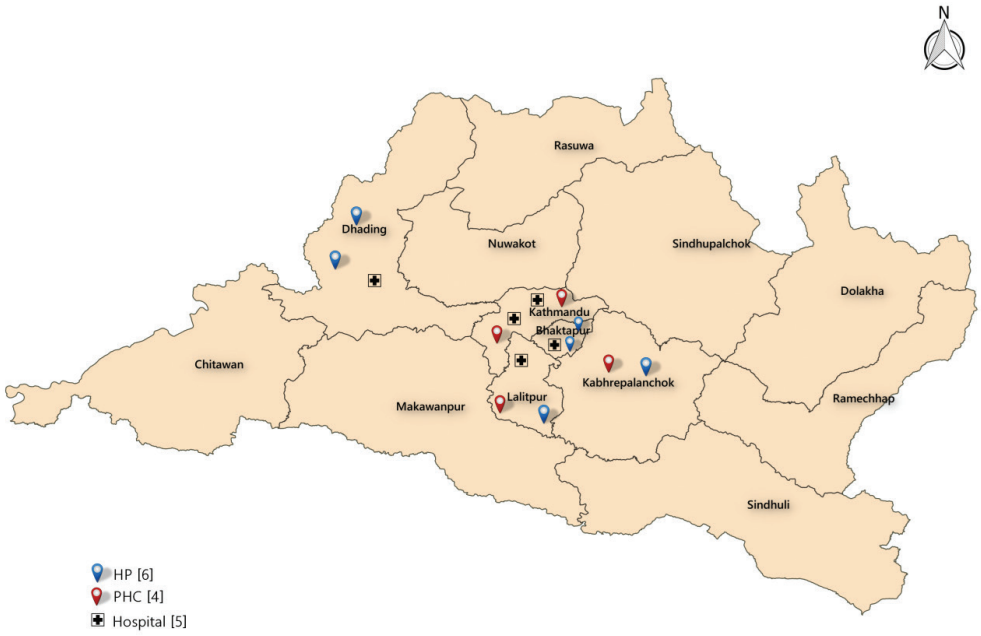
3.1 STUDY DESIGN

The assessment was based on mixed method approach. Both quantitative and qualitative approaches were considered for the assessment. Quantitative data were obtained via surveys, while qualitative data were obtained from in-depth interviews.

3.2 STUDY AREA

The assessment was conducted in 15 public health facilities of Kathmandu, Lalitpur, Bhaktapur, Kavre and Dhading districts in Bagmati Province of Nepal. The figure below (Fig 6) displays the location of health facilities under this assessment.

Figure 6: Map of Bagmati province showing study sites



3.3 SAMPLING APPROACH

Purposive sampling of the health facilities was done to meet the objective of the assessment. The sampling was done to include all levels of public health facilities (tertiary level hospital, district hospitals, PHCCs and HPs). A total of 15 health facilities (Table 1) from five districts of Bagmati province were included in the assessment. The selection of public health facilities was conducted after consultation with NCASC and WHO.

Table 1: List of study sites included in the assessment

Kathmandu	Kavre	Lalitpur	Bhaktapur	Dhading
1. Bir Hospital	5. Dhulikhel PHCC	7. Bajrabarahi PHCC (recently upgraded to hospital)	10. Bhaktapur Hospital	13.Dhading Hospital
2. Maternity Hospital	6. Khopasi PHCC	8. Badegaun PHCC	11.Duwakot HP	14. Naubise HP
3. Mulpani PHCC (recently upgraded to hospital)		9. Lele PHCC	12.Katunje HP	15.Gajuri PHCC
4. Gokarna PHCC (recently upgraded to hospital)				

3.4 STUDY DURATION AND SITE VISIT

The assessment was conducted between September 2021 and November 2021. Prior to site visit, coordination was done with the key person at the public health facilities to arrange the site visit. The site visit was conducted during the month of September and October 2021.

3.5 DATA COLLECTION TOOLS AND TECHNIQUES

The data for the study were collected by adopting both primary and secondary methods. Desk review of the national policies, guidelines and related documents were carried out prior to the primary data collection. Consultation was done with WHO and NCASC for development and finalization of the assessment tools. The study tools were based on STD preventive services, gap assessment toolkit (20) and service availability and readiness assessment (SARA) (21,22). The study tools have been

given in Annex 1.The questionnaires and interview guides were used for conducting interview with health facility in-charge, service providers at different level of health facilities and STI patients.

One to one interview of the patients and service providers were taken, while the interview with health facility in-charge was taken individually or in group, depending on the local situation. The service providers of health facilities including hospital director, medical superintendent, medical officer and in charge were included in the group.

The interview with the patients and service providers lasted for around 10-15 minutes and that among health facility in-charge lasted for about 30-45 minutes. Verbal consent of the interviewee (service providers and patients) was obtained before initiating the interview. They were also assured that confidentiality and privacy will be maintained. The personal information and names of the interviewee were not disclosed during analysis of the assessment. Qualitative data on perception of service providers regarding STI services and satisfaction levels of the patients seeking STI services were also explored.

Out-patient department (OPD) register, STI registers maintained by the health facilities were reviewed and also matched against the IHMIS data reported for the 2077/78 FY. Quantitative data were collected using semi-structured questionnaire which focused on services and facilities available at the public health facilities. Information related to availability of human resources, lab facilities for STI diagnosis, availability of screening facilities, drugs and commodities for STI services, management of different STI related syndromes were included in the assessment. Further STI recording, reporting and surveillance were also part of the assessment.

3.6 MONITORING AND SUPERVISION

Monitoring and supervision of the assessment was done by the WHO country office team throughout the assessment process. The joint monitoring was done by the official of NCASC who accompanied the team and monitored three study sites: Bhaktapur Hospital, Duwakot HP and Katunje HP. Official of NCASC also observed the interviews with group/service providers and patients and STI data from the OPD register.

3.7 DATA MANAGEMENT AND ANALYSIS

Qualitative data

The data collected from the service providers and patients through interview were qualitative data. The interviews were audio-recorded after obtaining verbal consent from the interviewees. The data obtained were categorized into different emerging themes. The final analysis of qualitative data was based on thematic analysis.

Quantitative data

The semi structured questionnaire was used to collect data from the health facility in-charges. As the quantitative data collection was paper based, the collected data were entered in Epidata software. The entered data were double checked and then extracted in the format of SPSS (sav) file and Excel.

3.8 POTENTIAL BIAS AND LIMITATION OF THE ASSESSMENT

The public health facilities were purposively selected from three districts in Kathmandu valley and two adjacent districts Kavre and Dhading, which may result in selection bias. However, to minimize the bias, the selection of health facilities has been made across all levels of health facility and population demographics (urban, semi-urban and rural areas). The findings and recommendation from this assessment is expected to provide initial step towards improving the STI services and further designing of comprehensive STI assessment at the national level.

4

Key findings and discussion

Among the 15 facilities visited for this assessment, 3 (20%) were HP, 8 (53%) were PHCC where 3 (Mulpani, Bajrabarahi and Gokarna) had been recently upgraded to primary hospital, 2 (26%) were district level hospital and 2 (13%) were tertiary hospital. The findings of the assessment have been described below in details according to the key thematic area:

4.1 AVAILABILITY OF STI SERVICES

During the assessment, it was observed that all the public health facilities provided STI services to the STI patients but most of the services were without reference to the national STI case management guideline. It was also observed that except Bir hospital no other public health facilities had separate STI clinic with designated staff for STI services. All other health facilities delivered STI services from the general OPD or Family planning or ANC. The average patient volume in the OPD and for STIs services as reported by the health facility in-charge and service providers are highlighted in the Table 2.

Table 2: Number of patients visiting the public health facilities for general OPD service and for STI service (information provided by health facility incharge of the health facilities)

SN	Name of health facilities	Monthly OPD visits	Monthly average at OPD visits	Monthly visits for STI services	Monthly average STI patients	Common STIs	STI cases reported in the iHMIS 2077/78
1	Katunje HP	700	863	15	32	VDS, LAPS	0
2	Duwakot HP	990		40		VDS, LAPS	0
3	Naubise HP	900		40		PID, VDS	0

SN	Name of health facilities	Monthly OPD visits	Monthly average at OPD visits	Monthly visits for STI services	Monthly average STI patients	Common STIs	STI cases reported in the iHMIS 2077/78
4	Gokarna PHCC	2100	2141	100	83	VDS and PID	0
5	Dhulikhel PHCC	700		15		VDS, Candidiasis	0
6	Khopasi PHCC	800		30		VDS, genital warts, LAPS	0
7	Lele PHCC	1080		30		VDS, PID	0
8	Gajuri PHCC	3000		100		Gonorrhea, Syphilis, LAPS	0
9	Badegaun PHCC	3600		30		VDS, PID	0
10	Bajrabarahi PHCC	4500		300		VDS, PID	0
11	Mulpani PHCC	1350		60		VDS, PID, Candidiasis	0
12	Bhaktapur Hospital	8000	9000	300	250	VDS, PID, Syphilis, genital warts	0
13	Dhading Hospital	10000		200		PID, VDS, genital ulcer disease syndrome	0
14	Maternity Hospital	25410	27705	1700	1350	Trichomoniasis, PID, VDS, Syphilis	0
15	Bir Hospital	30000		1000		Syphilis	0

4.2 HUMAN RESOURCE FOR STI

The national guideline on STI case management 2014 recommends that the responsible service providers must be provided with STI basic and refresher training at least once in 3 years. However, none of the service providers during the assessment had received any sort of STI related training in last 12 months. Bir hospital and Bhaktapur hospital had deputation of Dermato-venereologists who look after the STI cases. There were no any STI focal person/incharge designated in any other public health facilities visited. Service providers based on their own knowledge were providing the services without having any formal STI training.

4.3 LABORATORY FACILITY

For the effective diagnosis and management of STI cases, availability of basic laboratory investigations along with trained service providers is equally important. It was observed that all the health facilities had laboratory setup except Duwakot HP. Only 8 health facility (53%) had a screening test kits available for the screening syphilis. Gram Stain could only be done at the 3 health facility (20%). The details about the available lab tests at the public health facilities have been shown below in Table 3.

Table 3: STI related laboratory services offered by public health facilities

Name of public health facilities	Laboratory Investigations						
	Gram staining	Rapid Syphilis test	TPHA	RPR	NAAT	Culture and antibiotic susceptibility testing	Other
Gokarna PHCC							None
Mulpani PHCC							None
Bir Hospital							HIV, HCB, HBSAg
Maternity Hospital							HIV, HCB, HBSAg
Dhulikhel PHCC							None
Khopasi PHCC							None
Lele PHCC							None
Bajrabarahi Hospital							None
Badegaun PHCC							None
Bhaktapur Hospital							HIV, HCB, HBSAg
Katunje HP							None
Duwakot HP							None
Dhading Hospital							HIV, HBSAg
Gajuri PHCC							HIV
Naubise HP							None

Index

Available

Not available

Although HIV, syphilis and HBsAg is recommended test for the pregnant women during the ANC, they were available only at 4 health facility Although PHCCs are equipped with lab, three PHCCs (Dhulikhel PHCC, Khopasi PHCC, and Lele PHCC) did not offer any laboratory services related to STI. The lab services at the Gajuri PHCC and Badegaun PHCC was limited only to RPR test for Syphilis. Nucleic Acid Amplification Test (NAAT) was not available in any of the health facility under the assessment.

Only 1 health facility –Gokarna PHCC offered free of cost STI lab service to all. And 2 health facilities, Dhading hospital and Gajuri PHCC, the STI lab service was free for pregnant women only who came for ANC visits while other patients had to pay for these services. In other health facility, patients had to pay minimum for lab service that included hemoglobin, urine examination, RPR and HIV testing as ANC package.

4.4 STI DRUGS

Essential STI drugs are available and free of cost to patients visited to the public health facilities. After the federalization of the country, many health facilities at the peripheral level receive their drugs and commodities from the local municipality while some health facilities continue to receive the drugs and logistics support from the central level. Many health facilities faced the problem of irregular drugs supply hindering the treatment services. Details of essential STI drugs that were available in each public health facility during the assessment have been shown below in Table 4.

Table 4: List of essential STI drugs available at each health facility

Name of health facilities	STI drugs							
	Azithromycin	Benzathine Penicillin	Cefixime	Ceftriaxone	Doxycycline	Metronidazole	Acyclovir	Fluconazole
Gokarna PHCC								
Mulpani PHCC								
Bir Hospital								
Maternity Hospital								
Dhulikhel PHCC								
Khopasi PHCC								
Lele PHCC								
Bajrabarahi Hospital								
Badegaun PHCC								
Bhaktapur Hospital								
Katunje HP								
Duwakot HP								
Dhading Hospital								
Gajuri PHCC								
Naubise HP								

Index

Available

Not available

It was observed that all of the public health facilities had some drugs for the treatment of different STIs. I Drugs like azithromycin, doxycycline, metronidazole, and fluconazole were available in most of the health facilities. Likewise, drugs like cefixime, ceftriaxone and acyclovir were not available in some of the health facilities. However, it was noteworthy that benzathin penicillin, the drug of choice for Syphilis was not available in any of the health facilities except Dhading hospital. While many of the health facilities provided the STI related essential drugs free of cost, two of the health facilities Gokarna PHCC and Gajuri HP provided the drugs free of cost only to pregnant women during their ANC visits and the other two hospitals, Bir hospital and Maternity hospital did not provide STI drugs for free. All the drugs mentioned in table 4 are listed in the essential drugs as per the list of essential drugs by Department of Drugs Administration (DDA), Ministry of Health and Population and, however, these were not available for free of cost in all the public health facilities visited.

4.5 CONDOM AVAILABILITY AND UTILIZATION

Consistent use of condom has been recommended to reduce the risk of HIV transmission along with STIs. Use of condoms also aids in preventing unwanted pregnancies. During the assessment it was found that all the health facilities except Maternity hospital had the provision of free condoms.

4.6 RECORDING AND REPORTING OF STI

STI cases recording, and reporting form exists in the IHMIS of Nepal. Monthly STI register is maintained under IHMIS 7.2 by the ART centers. Similarly, IHMIS 9.3 under HIV section is the STI monthly reporting form, which is maintained by all HPs, and PHCCs. Further STI cases were registered in OPD register (IHMIS 1.3), family planning register (IHMIS 3.1 and IHMIS 3.2), and Maternal and Newborn Health service register (IHMIS 3.6). All the public health facilities during the assessment reported that they had maintained regular recording and reporting for STIs services, however, additional details required by the form were not completely recorded. There was also a mismatch between the verbal reporting of STI cases by the service provider/ health facility in charge of and actual STI cases reported in the IHMIS system (Table 2). Due to multiple registers, many patients with STI problems visiting the OPD clinics were diagnosed and recorded in the OPD registers rather than in the STI registers. This resulted in poor recording of STI cases making it difficult to estimate the exact burden of STI. None of the service providers were trained in STI case management including STI counseling, recording and reporting at a regular interval.

4.7 CASE MANAGEMENT OF STI

The national guideline for case management of STIs was first developed in 1995 with its latest update in 2014. However, none of the health facilities except Bir hospital had the guideline at the health facility. In absence of the guideline/SoP at the clinic and lack of trained service providers, the management of STI cases were mostly based on the knowledge and skills of the service providers As the service providers were not regularly trained for STI management, syndromic approach was not adopted as per the national guideline and the approach for managing STIs was also differed from one health facility to other.

The most common STIs observed in public health facilities were vaginal discharge, pelvic inflammatory disease (PID) and syphilis. Vaginal discharge was mostly treated by fluconazole and metronidazole or tinindazole on syndromic approach to cover candidiasis, trichomoniasis and bacterial vaginosis. The drugs treated for vaginal discharge were available in all the public health facilities. It was informed that some of the drugs were out of stock sometimes because of the irregular supplies. PID was treated on syndromic basis mostly by doxycycline, metronidazole and cefixime. These oral drugs were available in all the public health facilities. Ceftriaxone were available in some of the PHCC and HP but were hardly used because of apprehension of injection. Syphilis when clinically diagnosed or tested positive for RPR and TPHA were offered injection benzathine penicillin but were mostly not available in those public health facilities and hence referred to the higher center. Gonorrhea were mostly clinically diagnosed and treated by oral cefixime but not offered injection ceftriaxone even though it was available. Trichomoniasis was diagnosed clinically and was treated by tinindazole instead of metronidazole in majority of the health facilities.

4.8 COUNSELING FOR STIS ALONG WITH HIV/AIDS

Counseling is an important part in managing STIs to prevent further risk behaviors. Only four hospitals, Bir hospital, Maternity hospital, Bhaktapur hospital and Dhading hospital provided counseling services to their patients through hospital based ART centers by trained counselor who also provided service to the People Living with HIV (PLHIV) who had STI symptoms. The counseling was limited to basic counseling and Information Education Communication (IEC) materials were not available in any of the public health facilities. Partner notification in these four facilities were only limited to providing information to patients and asking them to bring their partners in next visit. Maternity hospital and Bir hospital had separate counseling rooms for the privacy of patients while the Bhaktapur and Dhading hospital did not have separate counseling room.

4.9 REFERRAL SYSTEM

As many of the health facilities did not have trained human resources and had limited case management options, many HPs and PHCCs referred the STI patients to the nearest hospitals. Tertiary centers like Bir hospital, Teaching hospital, Patan hospital, Maternity hospital, Bhaktapur hospital and Dhulikhel hospital were the common referral hospitals recommended by the HPs and PHCCs visited.

4.10 ANALYSIS OF THE INTERVIEW OF THE SERVICE PROVIDERS

The interview recordings from the service providers were analyzed and following themes were developed. Details about the service providers and the interview guide have been given in Annex 2.

a. Shyness, stigma, and delay in seeking care

The service providers expressed STI as one of the stigmatized problems in the community. They said that many women visit the health facility with the symptoms of STI; however, men are reluctant to seek care for their STI problems. As many of the health facilities deliver STI related services from the OPD with less private space, patients are shy to share their problems. Usually, male patients are more reluctant than female to share their problems. One health facility in-charge expressed as,

"It is not meaned that men do not have STI. Men are also equally vulnerable. If wife is detected with STI, it is important that husband also gets tested for the problem. However, many men do not come to seek the service as they are shy to share their STI problems"

— Service provider, PHCC

b. Availability of STI trained human resource and focal person

All the peripheral level service providers agreed that there were no STI trained human resources at their health facility. Trained human resources were limited only to the hospitals. In the conversation with service providers at the hospitals, they also expressed that they do not have STI trained service providers. There was no dedicated STI counselor in any of the facilities. In absence of trained human resource, facilities are not being able to manage the STI patients properly.

"We do not have trained human resource dedicated for STI here. We have very limited human resource in this facility. The patient flow is very high, so we do not have time to provide dedicated service to the patients seeking STI service and we do not have a focal person for providing STI service. We treat them from our general OPD. Women with STI problems are managed by ANC and Family planning service providers."

— Service provider, HP

c. Availability of STI management guideline/SoP and STI related IEC material

It was also very surprising to know that none of the health facility except Bir hospital had STI management guideline/SoP in place. As the guideline was not available, the service providers were bound to provide the services based on their individual knowledge. As they were not given any kind of training for STI management, many expressed that they have been treating the patients based on what they have learnt. In few of the sites, service providers treated the patients based on the syndromic approach. IEC material pertaining to STI was not available in any of the health facilities which hindered the counseling service.

"We do not have STI guideline/SoP as such. We have been managing the STI cases based on the symptoms they present with and little knowledge that we have. We have also not received any kind of training."

— Service provider, PHCC

d. Availability of STI drugs and laboratory services

Informants also opined that they did not have all the drugs for the treatment of STI syndromes. While in many health facilities, there were at least some drugs supplied by the local municipalities, they complained about the irregular supply of those drugs. Many of the peripheral level health facilities received drugs like azithromycin, cefixime, doxycycline, fluconazole, and metronidazole for STI management from the local government and were distributed for free to the patients, however many service providers complained that they were supplied irregularly. Benzathine penicillin was not available in all the facilities except for Dhading hospital. Acyclovir was also not available in majority of these facilities. In many peripheral health facilities, essential drugs were distributed free of cost, except for Maternity hospital and Bir hospital. In few health facilities, the STI drugs were free only to the women visiting for ANC. Furthermore, many HPs and PHCCs did not offer STI related lab services, and in many health facilities, screening tests was limited to RPR test and HIV test. Screening test for other STI was limited to district and tertiary care hospitals. Patients had to pay minimum for the lab services provided by some of the health facilities. However, some health facilities like Dhading hospital, Gokarna PHCC and Gajuri PHCC offered free lab service including RPR and HIV to pregnant women who come for ANC visits.

"We only have screening test for Syphilis and HIV in our health facility. Besides that, we do not have other screening facilities. Since we do not have laboratory facilities, it is somewhat difficult for us to diagnose the infections."

— Service provider, HP

"We provide all the STI related services from this facility. This being a tertiary level hospital, the patient flow is very high. In such situation, if there is regular supply of drugs then we can provide effective treatment to the patients but there is very irregular supply of drugs, and it gets difficult for us to manage…"

— Service provider, Tertiary care Hospital

e. STI cases recording and reporting

Health facilities reported that many women and men seek care for STI services but were not recorded and reported accordingly mostly due to workload, and lack of designated human resources for STI. And also due to multiple registers, the STI cases were not properly recorded and reported as per the service provided. Moreover, there was no periodic supervision and supportive monitoring for STI program from relevant authorities.

"It will be very comfortable and easy for us if we have separate register for STI so that all STI related recording and reporting will be in place. Most of the STI cases reporting are missing. In the actual scenario, most of the patients did not disclose their STI related problems in initial stage they simply state that they had stomachache. Later when we dig into the symptoms or problems, we diagnose the actual problem.... in this case reporting of STI cases will be missed"

—Service Provider, Tertiary care Hospital

4.11 ANALYSIS OF THE INTERVIEW OF STI PATIENTS

Patients visiting the health facilities for STI problems were identified and interviewed with help of the service providers. Detail about the patients and interview guide is in Annex 3.

The satisfaction of the patients were assessed via different questions based on health education or counselling services for STIs, partner notification for counselling/ treatment, provided IEC/BCC materials and STI brochures, and provided condom. Thematic findings from the interviews with patients have been presented below.

a. Patient satisfaction

Patients showed a positive attitude towards service providers. Apart from having a generally positive attitude towards service providers they were also satisfied with the services provided at the health facilities. None of the patients were provided with the IEC materials and STI brochures but all the patients responded that condom was available in free of cost.

"The service provided from this facility is good. I always come to this facility since it is near my house. The service providers are very friendly in this health facility. I had earlier come here for family planning service, and I was very satisfied with their service. This time also I am happy with their service as my health has improved."

— Female, 42 years

"I am happy with the way they treat the patients. The doctors here are always busy, but they give time to explain our problem and listen to us well. I had come for follow up today. However, I was not given any kind of brochures related to STI…. As for the cost, I paid for the ticket and some other service, which has cost me around NRs. 200."

— Male, 25 years

5

Conclusion and Recommendations

The prevalence of STIs among general population in Nepal is underreported in the National Health Information System. The STI program have not received enough attention to strengthen the quality services. A functioning service delivery including availability of quality STI services at all levels of health facility is fundamental to enhance the interventions of STI prevention and treatment services in-country. This assessment further indicates the needs for an effective STI program implementation and service delivery at each level of healthcare system to reduce the morbidity and mortality due to STIs and contribute to reduce the HIV transmission. The current review has revealed following key areas of the National STI Program in need of strengthening:

i. Quality of health services

All the health facilities provide STI services through general outpatient while STI services are also provided from ANC and family planning clinics. Health service providers are partially aware on syndromic approach of STI management and are treating based on their knowledge. The healthcare workers reports not having regular training on STI case management.

- Regular training on basic and refresher STI case management should be provided to service providers.
- STI services should be provided in a patient friendly space where the confidentiality and privacy of patients can be protected. A separate clinic with specific time schedule for STI services will further strengthen the STI ptogram.
- STI service should be integrated in services for Family planning, ANC, Maternal and Child Health (MCH) clinic and ART services with proper referral flow mechanism.
- STI guidelines/SoP and flowcharts on STI management should be available at the health facility to ensure the compliance of standard treatment protocol. Laboratory guidelines with algorithms should also be available at all public health facilities to facilitate accurate diagnosis and management of cases.

ii. Drugs and laboratory facilities

Many health facilities did not provide the lab services for STI even though lab facilities were available. HPs and PHCCs with gram staining facility did not collect specimen for STI case diagnosis or confirmation.

- STI screening such as gram stain (Gonorrhea/Chlamydia), wet mount (Trichomoniasis) should be available where laboratory set up are available in higher centers.
- Ensure provision of regular and free screening of Syphilis, Hepatitis B and HIV for all pregnant women attending the antenatal clinics as mandated by the National Guidelines on ANC Care.
- Essential drugs were mostly supplied by the municipality at the HPs and PHCCs while hospitals received it from the central level or Health Offices. All the essential drugs required for the treatment of STIs were not available in any of the health facilities.

iii. Recording and reporting of STI cases

- While there are proper STI recording and reporting forms in the IHMIS, its use needs to be ensured. The health worker/assigned staff should be well-oriented for STI recording and reporting along with standard documentation like STI register
- The STI forms, formats, and recording registers should be reviewed and revised to integrate different sources of STI recording and reporting.
- Regular monitoring and supervision of health facility should be undertaken to strengthen the STI recording and reporting.

iv. Counseling, partner notification and referral

- Counseling was offered in the few hospitals among the selected hospitals for assessment: Bir hospital, Maternity hospital Bhaktapur hospital and Dhading hospital. However, the counselling and referral services needs to be standard across all health facility. Training and capacity building of service providers also should include counselling for STI patients and partners.
- Structural consideration while setting up STI clinic should be given for confidentiality and privacy issues. Separate room for counseling was available only at Bir hospital and Maternity hospital.

- Although all the health facility had condoms, it could not be ascertained that they were provided to STI patients. Similarly, none of the health facilities had IEC material related to STI.
- Partner notification practice included asking the patients to bring their partners along in next visit. No follow up and proper tracking mechanism was observed.
- Developing effective mechanism/practices for partner notification of STI cases to ensure early diagnosis and management of the STI cases which greatly helps to prevent STI transmission.
- Follow up of the cases should be encouraged to ensure that patients adhere to the treatment regime and avoid the complications.

Other areas of concern

Monitoring antimicrobial resistance: The growing threat of AMR is also concern. The health facility with dedicated lab should be encouraged to participation in the National AMR surveillance system.

NAAT: With the expansion of the country capacity in conducting PCR. The NAAT diagnostic for the STIs should be encouraged at the higher tertiary centers.

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ANNEXES

Annex 1
Quantitative questionnaire

SITE NO:

Assessment and Key Informant Interview Questionnaires

Site Name			**Category (Please tick in appropriate box)**	**Private** ☐		**Public** ☐	
Site Address				**Hospital** ☐	**PHCC** ☐	**HP** ☐	**Clinic** ☐
Key Informant's Name		Designation				Interview Start Time	HH:MM
Date of Interview		Interviewer's Name				Interview End Time	HH:MM

A. STIs Service Delivery			
Questions	**Response and Comments**		
1. Which STIs are most seen in this health facility?			
2. Out of all patients attending the health facility, estimate what proportion (%) are attending for STI care. (monthly) *(Note to Interviewer: Try to obtain data from last 3 months and don't forget to validate given information with Register)*	Total OPD visits: For STI care:		
3. Is there a person in-charge of STIs?	Yes ☐	No ☐	Remarks
4. What services/support is allocated for STI activities? *(Please tick the appropriate box)*	☐ Separate STI Clinic ☐ STIs treatment attached to General Clinic ☐ Lab facility for STI		
5. Are following STI drugs available for managing STIs?			List additional drugs available for STIs management
Azithromycin	☐ Yes	☐ No	
Benzathine Penicillin	☐ Yes	☐ No	
Cefixime	☐ Yes	☐ No	
Ceftriaxone	☐ Yes	☐ No	
Doxycycline	☐ Yes	☐ No	
Metronidazole	☐ Yes	☐ No	
Acyclovir	☐ Yes	☐ No	
Podophyllin	☐ Yes	☐ No	
Fluconazole	☐ Yes	☐ No	

6. Are laboratory testing available for managing STIs?			List additional Lab testing available for STIs diagnosis
Gram staining	☐ Yes	☐ No	
Rapid syphilis test	☐ Yes	☐ No	
TPHA	☐ Yes	☐ No	
RPR	☐ Yes	☐ No	
NAAT	☐ Yes	☐ No	
Culture and antibiotic sus-ceptibility testing	☐ Yes	☐ No	
7. Are STI drugs provided for free?	☐ Yes	☐ No	Others:
8. Are STI lab testing provided for free?	☐ Yes	☐ No	Others:
9 a. Syndromic STI case management	☐ Yes	☐ No	Observation/Remarks:
9 b. Screening and treatment of:			
Syphilis	☐ Yes	☐ No	Observation/Remarks:
Gonorrhoea	☐ Yes	☐ No	Observation/Remarks:
Chlamydial infection	☐ Yes	☐ No	Observation/Remarks:
Trichomoniasis/BV	☐ Yes	☐ No	Observation/Remarks:
9 c. STI screening offered for which population:			
General Population	☐ Yes	☐ No	Observation/Remarks:
Pregnant women	☐ Yes	☐ No	Observation/Remarks:
PLHIV	☐ Yes	☐ No	Observation/Remarks:
Key Population	☐ Yes	☐ No	Observation/Remarks:
10. Routine HIV testing in STI patients	☐ Yes	☐ No	Observation/Remarks:
11. STIs IEC available at the facility	☐ Yes	☐ No	Observation/Remarks:
12. Counselling for STIs HIV/AIDS	☐ Yes	☐ No	Observation/Remarks:
13. Free Condom provision/available at the facility	☐ Yes	☐ No	Observation/Remarks:
14. Partner notification, counselling and treatment	☐ Yes	☐ No	Observation/Remarks:
15. Regular recording & reporting for STIs services	☐ Yes	☐ No	Observation/Remarks:
16. Are STIs linked to other pro-grammes: ANC, Family Planning, HIV Testing.	☐ Yes	☐ No	Observation/Remarks:
17. What are the challenges, gaps, issues and needs in the provision of STI services?	☐ Yes	☐ No	Observation/Remarks:

B. Case management of STIs			
1. Do you have national guidelines on managing STIs in your clinic? Do you have facility specific SOPs? Check the availability of guidelines/SOP?	☐ Yes	☐ No	Observation/Remarks:
2. Which of the following approaches are being used for managing STIs?			
Etiologic diagnosis and management	☐ Yes	☐ No	Observation/Remarks:
Clinical diagnosis and management	☐ Yes	☐ No	Observation/Remarks:
Syndromic diagnosis and management	☐ Yes	☐ No	Observation/Remarks:
3. How is the facility treating the following STIs? (mention drug dose/regimen)			
Gonorrhoea	Clinical/Etiologic/Syndromic		
Syphilis	Clinical/Etiologic/Syndromic		
Chlamydial infections	Clinical/Etiologic/Syndromic		
Trichomoniasis	Clinical/Etiologic/Syndromic		
Others	Clinical/Etiologic/Syndromic		
4. Is there any contact tracing, partner management/notification activity being implemented?	☐ Yes	☐ No	Observation/Remarks:
5. Is there any established referral system for STIs? If yes? Are referrals followed up (by referring site) and are referral feedback being done (by receiving site)	☐ Yes	☐ No	Observation/Remarks:
6. What are gaps, issues, and needs for case management of STIs?			

C. STI Surveillance			
1. Check if OPD registers are available and maintained.	☐ Yes	☐ No	Observation/Remarks:
2. Monthly routine reporting to HMIS.	☐ Yes	☐ No	Observation/Remarks:
3. Challenges, gaps, comments, needs in STIs Recording & Reporting.			

D. Training			
1. Are staff involved in STI management training within the last 12 months?	☐ Yes *If yes, please tick the box 1a or 1b or both*	☐ No *If No, please go to question 2*	Observation/Remarks:
1a. Basic STI Case management training	☐ Yes	☐ No	Observation/Remarks:
1b. Refresher STI training	☐ Yes	☐ No	Observation/Remarks:
2. Was there any supportive supervision visit in the last 12 months?	☐ Yes	☐ No	
3. Comments, gaps, issues, needs for Training			

Annex 2
Service Provider Interview Guide

Service Provider ID: _____

Post: _____ **Age/Sex:** _____

Health Facility: _____

Interviewer(s): _____ **Date:** _____

Introduction

We are talking with you to better understand the STI services available from the facility. We are interested in the kinds of services that are offered or not offered, the differences among sites where such services are provided, and where the availability of services can be enhanced.

Please be open in your responses. The information that we discuss today will remain confidential.

The information will be useful in improving STI services. The interview is being recorded only for note taking purpose. Although we will write down what you say, your name will not be connected with your comments, and will not appear in any report we write. At the end of the interview, you will be able to ask any additional questions.

If you do not seek to be part of this interview, you can stop the interview at any point.

Your participation in this interview is entirely voluntary.

Do you have any questions before we begin?

1. Tell us about the populations you primarily serve.
    a) Have you observed any changes in who you served over time? **If No, skip b. If Yes, go to b.**
    b) What do you think contributed to the changes?
2. What STI preventive and treatment services are currently available in the facility?
3. What additional services do you think would be helpful to have that you don't currently offer?
4. What STI services are offered that you think people don't need as much or anymore?
5. What are your most common referrals given to clients?
6. Is there anything else that we did not ask that you would like us to know?

CLOSING STATEMENT: Thank you again for participating. We sincerely appreciate your insights.

Annex 3
Client Interview Guide

ClientID: _____

Client Age/Sex: _____

Health Facility: _____

Interviewer(s): _____ **Date:** _____

Introduction

We are talking with you to better understand the STI services available from the facility. We are also interested to know what specific services you have been seeking and whether the services are offered or not offered.

Please be open in your responses. The information that we discuss today will remain confidential.

The information will be useful in informing and improving STD services. The interview is being recorded only for note taking purpose. Although we will write down what you say, your name will not be connected with your comments, and will not appear in any report we write.

At the end of the interview, you will be able to ask any additional questions.

If you do not seek to be part of this interview, you can stop the interview at any point.

Your participation in this interview is entirely voluntary.

Do you have any questions before we begin?

1. Tell us what problem brings you here?
2. Are you satisfied with the STI services provided here. If Yes, Why? If No, Why??
3. At the facility, did you receive any of the following services on STI treatment?
   - Health Education or Counselling services for STIs
   - Partner notification for counselling/treatment
   - Provided IEC/BCC materials and STI brochures.
   - Provided Condom
4. Do you have to pay additional fees for the STI services in the facility?
5. Any comments or Feedback that you expect from STI diagnosis and treatment services from this Health Facility?

CLOSING STATEMENT: Thank you again for your participation. We sincerely appreciate your insights.

Annex 4

Detail information of interviews at different sites

S.N.	Name of the Interviewee	Health Facility	Date	Interview duration
1.	Dr.Sangbo Lama	Gokarna PHCC	21 September 2021	45 minutes
2.	Dr PrayushAryal	Mulpani PHCC	21 September 2021	30 minutes
3.	NirajParajuli (Senior consultant)	Bir Hospital	22 September 2021	39 minutes
4.	Dr Tripti Shrestha	Maternity Hospital	22 September 2021	40 minutes
5.	Krishna Bahadur Ale (Senior AHW)	Dhulikhel PHCC	23 September 2021	35 minutes
6.	Dr Srijana Neupane	Khopasi PHCC	23 September 2021	35 minutes
7.	Dr RakeshNyasur	Lele PHCC	23 September 2021	45 minutes
8.	Dr Sanju Sapkota	Bajrabarahi Hospital	24 September 2021	35 minutes
9.	Dr Uma Bhandari	Badeguan PHCC	24 September 2021	45 minutes
10.	Dr Sumitra Gautam	Bhaktapur Hospital	27 September 2021	45 minutes
11.	Swosti Acharya (Public Health Inspector)	Katunje HP	27 September 2021	30 minutes
12.	Parbati Neupane (ANM)	Duwakot HP	27 September 2021	30 minutes
13.	Dr Tribhuvan Chandra Jha	Dhading District Hospital	25 October 2021	45 minutes
14.	Dr Mahesh Shrestha	Gajuri PHCC	25 October 2021	30 minutes
15.	Geeta Bhatta (Health post in charge)	Naubise HP	25 October 2021	30 minutes

Annex 5

Demographic characteristics of Service providers of various health facilities

Health Facility	Age	Sex	Position
Bir Hospital	32 years	Female	Resident 2nd year
Gokarna PHCC	27 years	Male	Medical officer
Mulpani Hospital	29 years	Male	Medical Superintendent
Dhulikhel PHCC	45 years	Female	Senior ANM
Katunje HP	31 years	Female	HA
Badegaun Hospital	29 years	Female	Medical officer
Khopasi HP	29 years	Male	Public Health officer

Annex 6

Demographic characteristics of patients seeking STI services

Health Facility	Age	Sex
Bir Hospital	25 years	Male
Lele PHCC	42 years	Female
Maternity Hospital	22 years	Female
Katunje HP	55 years	Female
Dhading Hopital	26 years	Male
Dhading Hospital	33 years	Female

Annex 7

Technical Experts to conduct the STI assessment

The NCASC would like to acknowledge technical support from the WHO- Country Office and National Consultants who conducted the assessment of the STI services.

1.	Dr Dinesh Pokhrel	Lead, National Consultant.
2.	Ms Rachana Shrestha	Co-lead, National Consultant.

Annex 8
Some pictures from the site

Photo 1: Laxmi Pandey from NCASC on monitoring visit to one of the study site Katunje Health Post, Bhaktapur

Photo 2: Consultant interviwing the STI patient

Photo 3: Lead consultant interviewing Dr.Tribhuvan Chandra Jha from Dhading Hospital

Photo 4: Dhading Hospital while waiting for interviewee

Photo 5: Group picture with the service providers of Naubise Health Post

NOTE

Technical Support