Best Practices in Strategic Information

Best Practices Series 1

STI Surveillance and Program Monitoring under NSACP
- An Indigenously evolved best practice in Strategic Information

Technical Assistance support and submitted by

The Voluntary Health Services (VHS),

Supported by **Centers for Disease Control and Prevention (CDC),**

(VHS-CDC Project),

Rajiv Gandhi Salai, T.T.T.I. Post, Taramani, Chennai – 600 113,

Tamil Nadu, INDIA.

Submitted to

National STD/AIDS Control Programme (NSACP)

Ministry of Health, Nutrition & Indigenous Medicine, Govt. of Sri Lanka

No.29, De Saram Place, Colombo 10, Sri Lanka.

MINISTRY OF HEALTH SRI LANKA

NATIONAL STD/AIDS CONTROL PROGRAMME

VHS VOLUNTARY HEALTH SERVICES WE SERVE THE PEOPLE WHO SERVE YOU

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Foreword

HIV/AIDS response globally has been a fountainhead of innovations and best practices that were evolved to customise the program and match the needs of the epidemic. Last three decades of HIV programming has seen several systems and initiatives that evolved to be called global best practices. A few efforts have been made to systematically document such best practices in HIV/AIDS response so that the lessons learnt from them can benefit the other programs or other areas or countries. These best practices span the entire spectrum of the HIV/AIDS program primarily focussing on prevention and treatment strategies, service delivery, community participation, multi-stakeholder response, financial systems and supply chain. However, there are very limited instances of documenting best practices in Strategic Information Management related to HIV/AIDS.

National STD/AIDS Control Programme of Sri Lanka has evolved robust Strategic Information Management systems over the decades, upon the foundations of the much stronger STD control program in the country. STD surveillance system, HIV case reporting system, HIV cohort tracking system and data dissemination practices are some shining examples of best practices in Strategic Information for HIV/AIDS that NSACP has developed over years. An exercise has been carried out to systematically review such initiatives from the lens of documenting best practices and this publication is an outcome of such an effort. I sincerely hope that this publication will not only highlight the achievements and lessons learnt from the past experiences, but also show us the way forward in further strengthening them.

In preparation of these best practices, we thank Dr Ariyaratne Manathunge, Consultant-Venereologist and Coordinator-SIMU, NSACP for his leadership and coordinating the technical assistance to NSACP as nodal officer for SIMU-NSACP. His strategic guidance in developing and bringing out the best practices document (book on best practices, best practices series and book of abstracts on best practices) covering both existing and emerging is highly appreciable. As a part of this, VHS-CDC Project in partnership with NSACP is bringing out "Best Practices Series" covering one book on each best practice on Strategic Information. In this regard, this book on best practice titled *"STI Surveillance and Program Monitoring under NSACP - An Indigenously evolved best practice in Strategic Information"* has been developed for effective dissemination. We also appreciate the contributions made by SIMU team, all the NSACP senior officials, key stakeholders and peripheral STD clinic team members in developing these best practices.

We appreciate the technical support being extended by VHS-CDC Project with the support of Centers for Disease Control and Prevention (CDC-INDIA) in planning and conducting this study in a participatory manner for introducing evidence based comprehensive capacity building plan for the Strategic Information Management team.

We would like to thank The Voluntary Health Services (Cooperative Agreement Implementing Partner of CDC) for their contribution in bringing out this publication on 'Best Practices in Strategic Information under NSACP' with the review and suggestions from NSACP.

We acknowledge and thank the VHS-CDC Project team for their immense support in ensuring partnerships and continue to provide strategic technical support to NSACP on Strategic Information and serving as instrumental in bringing out this document. We appreciate and acknowledge the technical support extended by VHS-CDC Project and their team in identifying, collecting, documenting and bringing out these best practices. These best practices will be of very much useful for dissemination at national and international level.

We thank United States President's Emergency Plan for AIDS Relief (PEPFAR), Centers for Disease Control and Prevention (CDC/DGHT-India) and their team for their support in this model inter-country initiatives and contribution in evolving a comprehensive TA plan and coordination mechanism. We greatly appreciate and acknowledge PEPFAR and CDC/DGHT-India for their financial and technical support and providing strategic technical assistance. Also thank for the support extended in bringing out this document.

Dr Rasanjalee Hettiarachchi,
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Acknowledgements

Voluntary Health Services – Centers for Disease Control & Prevention (VHS-CDC) Project is pleased to bring out this special document on 'Best Practices in Strategic Information under National STD/AIDS Control Programme, Sri Lanka'. This is a unique endeavour made in close collaboration with and guidance of Strategic Information Management unit of NSACP to systematically document the best practices in Strategic Information of HIV/AIDS in Sri Lanka. This exercise aimed to look at the existing and emerging SI initiatives from the lens of a best practice assessment and bring out the operational details, historical perspective, lessons learnt, potential for further development and recommendations for action. The methodology adopted and implemented with rigour ensured that it followed the globally recommended approaches while customising it to the context of Sri Lanka's program.

We wish to highly appreciate and acknowledge the leadership, support and guidance being extended by the Director, NSACP, Sri Lanka in the entire process of technical collaboration and bringing out this report.

We sincerely acknowledge and appreciate the critical leadership and guidance provided by Dr Ariyaratne Manathunge, Consultant-Venereologist and Coordinator-SIMU, NSACP, Sri Lanka in planning, execution, providing strategic guidance, sharing experiences and coordination of the entire process of development and finalisation of the document on best practices.

We also acknowledge the contributions of the entire SIM unit of NSACP. Further, we appreciate and thank contributions made by the key stakeholders: senior officials-NSACP, SIMU team, EIMS development team, website development team, consultants-Venereologist from various STD clinics, SI team members working at peripheral STD clinics and all those who has contributed for this documenting the best practices.

We would like to appreciate the strategic guidance and coordination extended by Dr T Ilanchezhian, Senior Technical Advisor, VHS-CDC Project in planning and completion of the entire document and providing needful technical support in bringing out this document by adopting a participatory process.

We acknowledge the contributions of Dr Yujwal Raj, Technical Advisor-SI, VHS-CDC Project for his technical expertise in developing the best practices and contributing in development of this document in a more meaningful manner.

VHS-CDC Project has undertaken efforts to bring out publications in the form of: book on best practices, best practices series and book of abstracts for dissemination by NSACP at national and international level. As a part of this technical cooperation initiatives, VHS-CDC Project in partnership with NSACP has also developed "Best Practices Series" on seven titles as one Best Practice book on each title.

VHS-CDC Project and VHS place on record our sincere thanks and gratitude to Dr Timothy Holtz, Country Director, CDC/DGHT-India for his dynamic leadership and strategic guidance being extended in providing Technical Assistance to NSACP, Ministry of Health, Nutrition & Indigenous Medicine, Govt. of Sri Lanka and Mr Lokesh Upadhyaya, Associate Director for Management and Operations and Ms Srilatha Sivalenka, Public Health Specialist, CDC/DGHT-India and CDC team for their ongoing technical guidance and support in this technical assistance initiative.

We also thank Ms T Sudha, Senior Program Associate, VHS-CDC Project for her support in ensuring communication and coordination.

We trust that, these documents will be of more useful to the readers for understanding the best practices for adoption and replication.

Once again, we acknowledge the support extended by SIMU unit-NSACP, NSACP and CDC in providing technical assistance to NSACP on SI related initiatives.

Dr Joseph D Williams,
Director Projects,
The Voluntary Health Services (VHS),
Chennai.

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCC	Behaviour Change Communication
CDC	Centers for Disease Control and Prevention
CSW	Commercial Sex Workers
DIC	Drop in Centre
EIMS	Electronic Information Management System
FSW	Female Sex Worker
GFATM	Global Fund to Fight AIDS, TB and Malaria
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
KP	Key Population
LFU	Loss to Follow Up
M & E	Monitoring and Evaluation
MSM	Males who have sex with males
NGO	Non-Government Organisation
NRL	National Reference Laboratory
NSACP	National STD/AIDS Control Programme
OPD	Out-Patient Diagnosis
PE	Peer Educator
PEP	Post Exposure Prophylaxis
PHI	Public Health Inspector
PIMS	Patient Information Management System
PLHIV	People Living with HIV
PMTCT	Prevention of Mother to Child Transmission
PreP	Pre Exposure Prophylaxis
PWID	People Who Inject Drugs
SI	Strategic Information
SIMU	Strategic Information Management Unit
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
VD	Venereal Disease
VDRL	Venereal Disease Research Laboratory test
VHS	Voluntary Health Services

STI Surveillance and Program Monitoring under NSACP - An Indigenously evolved best practice in Strategic Information

EXECUTIVE SUMMARY

Background: One of the key strengths of National STD/AIDS Control Programme is the country-wide network of STD clinics with uniform, standardised protocols of STI surveillance & data management, that forms the backbone of HIV/AIDS control in the country. The system has enabled the program to monitor trends of various STDs over time and strengthen STD program management.

Objectives: To document demographic & risk profiles and clinical case management of all STD cases and report the same to NSACP

Implementation Highlights: One of the key highlights is the uniformly implemented risk assessment of STI Patients using standardised formats across all the STD clinics in the country. This provides a large database to assess the demographic, STI & risk behaviour patterns of clinic attendees, and is a rich source of information for program planning. Unique strength of STI program in Sri Lanka is the availability of data on etiological diagnosis of STI. Comprehensive, Standardised Quarterly returns submitted by all the STD clinics provide a good insight into various aspects of program management. High level, uniform reporting for a long time led to availability of historical data for any program modelling. STI surveillance & management is closely integrated with HIV care & Management.

Conclusion & Lessons Learnt: STI data systems form the backbone of STI & HIV control in Sri Lanka. The system led to generation of evidence on STD prevalence trends, treatment rates, risk profiles, referral linkages and STD program management. Upgrading to electronic version with data quality monitoring will make it more effective.

BACKGROUND AND RATIONALE

AIDS response in Sri Lanka is built upon a very old and robust system of STD control. The network of STD clinics spans the whole country covering all the districts. Each STD clinic is manned by trained Venereologists, nursing staff, public health inspectors, lab technicians and other support staff. Each STD clinic has a laboratory equipped to carry out all the basic investigations including the etiological diagnosis of STDs. These labs are connected to the National Reference Laboratory (NRL) for confirmation, advanced tests and quality control. The STD case management is based on etiological diagnosis and not on syndromic management, and this is a unique strength of NSACP in Sri Lanka. There is a well-established referral system between the STD clinic and other arms of healthcare including blood banks, ANC clinics, TB clinics, general hospitals, private labs & hospitals, etc. Risk assessment of STD patients is done through comprehensive and standardised formats. The format not only documents the risk behaviour, but also the entire clinical follow up, treatment, relapse and cure.

The program data related to STD management is recorded using standardised registers that are uniformly implemented across the country. The service delivery statistics are compiled and submitted to SIM unit of NSACP once in three months through quarterly returns. The data then gets analysed and is published annually in the annual report. The STD clinics thus form the very backbone of NSACP linking all the various population segments with STD & HIV/AIDS services. Data captured from the STD clinics provides the comprehensive picture of what is happening to the various population groups with respect to STD/HIV/AIDS. The STI surveillance and program monitoring system that captures the information on this most vital element of the AIDS control program needs to be studied and documented systematically, so that further improvements can be planned.

OBJECTIVES

The STI Surveillance and monitoring system has been developed with the following objectives.

1. To document detailed demographic & risk profiling and clinical case management of all STD cases
2. To minimise the defaulters and ensure that all STD cases and their contacts receive the complete treatment
3. To ensure regular comprehensive reporting on all aspects of STD management & HIV testing for all the various population groups accessing services

EVOLUTION

The set up and expansion of network of STD clinics across the country dates back to the second half of last century i.e. around 1960s, when the program was known as Central Anti-VD Campaign. From 12 full-time clinics in 1969-70 and 29 full-time STD clinics & 23 branch

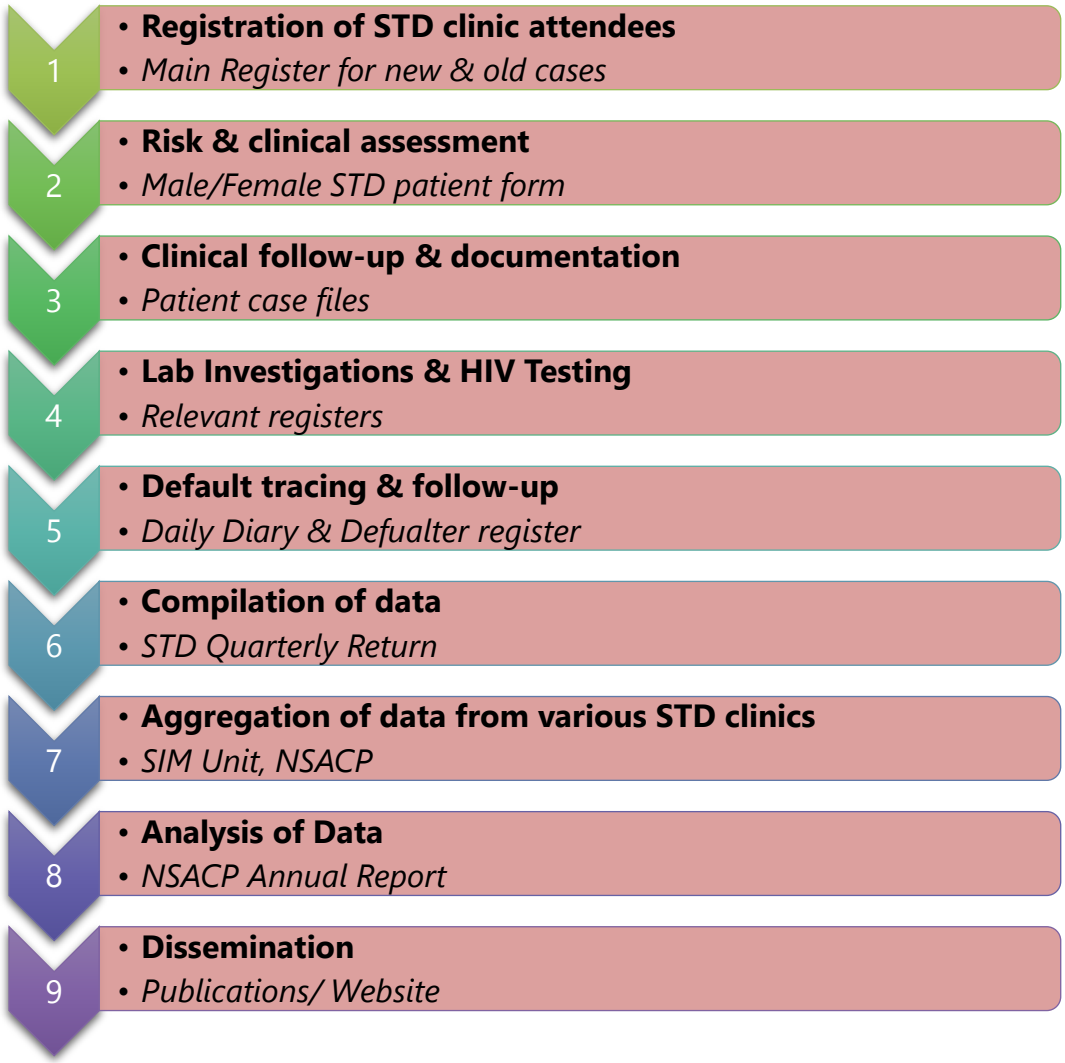
STD clinics by the end of 2012, the current network has 33 STD clinics functional across the country. Right from the early 60's, the program focussed on documenting the number of new cases and population rates of various STI including Syphilis, Gonorrhoea, Non-gonococcal infections, Congenital Syphilis, etc. As laboratory diagnosis became available for more and more STDs, the data was captured for subsequent years and reported in subsequent annual reports.

Information on occupation of the cases, contact tracing and treatment, sources of infections, etc. are also documented from the early years. Administration reports in earlier years and annual reports in the later years capture all this information regularly. The reports of early 80's also capture the fact that only around 15-20% of syphilis cases attend the public STD clinics, an information probably obtained through special surveys, and hence, the clinic data is not a true reflection of the problem in the community. Subsequent reports also document the number of STD clinic attendees who were tested for STDs as a part of their pre-employment screening, visa requirements and ante-natal screening for Syphilis and HIV.

While none of these reports describe the system of data recording and reporting from the STD clinics, it can be presumed that a strong paper-based system of reporting that is still extant today in Sri Lanka was behind the published figures. A few years back, an electronic database known as Patient Information Management System (PIMS) has been developed where individual level data of STD clinic attendees from the STD patient forms was entered. This was rolled out in a few STD centres for some time. But was not scaled up due to operational reasons.

DETAILS OF IMPLEMENTATION

The **system of data management at STD clinics** is presented in the flow chart below.



Formats & Registers maintained at STD clinics

Following is the list of registers maintained at STD clinics.

STD Case-related Registers

1. Master register for new cases
2. Subsequent visit register
3. STD patient case files
4. Counselling register
5. Daily Diary with case numbers
6. Appointment book/ Call up diary
7. Defaulter tracing book/ Call up diary
8. Defaulter register
9. Syphilis register (only TPPA positive)
10. Interview & contact tracing register

Non-STD patient Registers

11. Pregnant women register
12. ANC Syphilis positive register
13. Blood bank VDRL positive register
14. CSW/ MSM/ PWID registers
15. Employment screening register (MRF/FRF register)(FPE/MPE register)
16. Visa screening register/ H-number register

Other Activities Registers

17. Register for IEC/BCC and Awareness Programs conducted by NSACP/STD clinic staff
18. Court report recording
19. Special blood survey registers – Prison, IDU, CSW, Rapid Test etc.
20. Spa blood survey register

PEP Registers

21. Register of accidental exposure for NSACP workers
22. PEP register
23. Non-healthcare workers assessed for PEP
24. PEP reports register
25. PEP case files

Pharmacy Registers

26. Pharmacy Stock registers (DR1, 2, 3, 4)
27. ART drug stock register
28. ART drug dispensing register

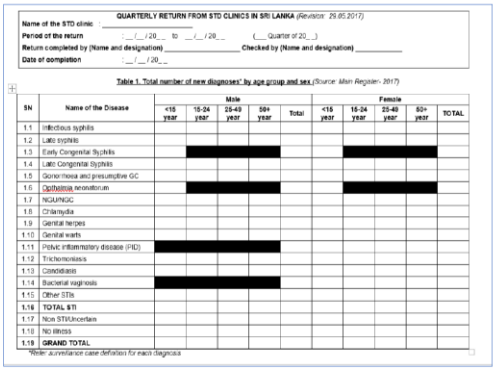
Laboratory Registers

29. Microscopy Daily Recording Register
30. Register for TB screening among PLHIV
31. OPD Blood Testing Register
32. Equipment log book
33. Equipment maintenance log book
34. Equipment repair log
35. HIV rapid test record
36. Indent register
37. Incident register
38. Sample rejection register
39. Sample receiving register
40. GC culture record register
41. MOH clinic testing registers

STD quarterly return: This is the quarterly progress reporting format that every STD clinic submits to SIM unit. This is prepared manually by collecting information from patient case files and various registers. The format is comprehensive and covers all the functions including etiological diagnosis of STD patients by age and sex, details of contact tracing, Syphilis treatment, HIV testing, ANC testing, KP testing, condom distribution, IEC/BCC activities, trainings, etc.

Quarterly Reporting Formats

STD return



QUARTERLY RETURN FROM STD CLINICS IN SRI LANKA (Revision: 29.05.2017)

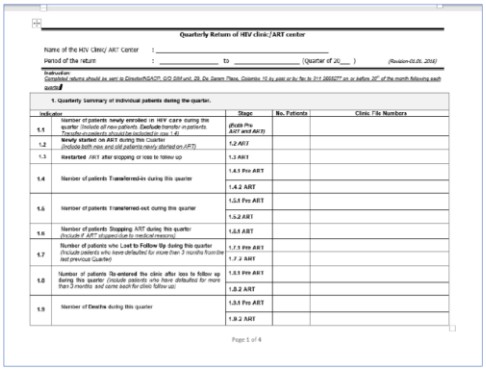
Name of the STD clinic :
Period of the return : __/__/20__ to __/__/20__ (__Quarter of 20__)
Return completed by (Name and designation) Checked by (Name and designation)
Date of completion : __/__/20__

Table 1. Total number of new diagnoses* by age group and sex (Source: Main Register- 2017)

SN	Name of the Disease	Male					Female					TOTAL
		<15 year	15-24 year	25-49 year	50+ year	Total	<15 year	15-24 year	25-49 year	50+ year		
1.1	Infectious syphilis											
1.2	Late syphilis											
1.3	Early Congenital Syphilis											
1.4	Late Congenital Syphilis											
1.5	Gonorrhoea and presumptive GC											
1.6	Ophthalmia neonatorum											
1.7	NGU/NGC											
1.8	Chlamydia											
1.9	Genital herpes											
1.10	Genital warts											
1.11	Pelvic inflammatory disease (PID)											
1.12	Trichomoniasis											
1.13	Candidiasis											
1.14	Bacterial vaginosis											
1.15	Other STIs											
1.16	TOTAL STI											
1.17	Non STI/Uncertain											
1.18	No illness											
1.19	GRAND TOTAL											

*Refer surveillance case definition for each diagnosis

ART Return



Quarterly Return of HIV clinic/ART center

Name of the HIV Clinic/ ART Center :
Period of the return : to (Quarter of 20__)

Instruction:
Completed returns should be sent to Director/NSACP, STD SIM unit, 29, De Saram Place, Colombo 10 by post or by fax to 011 2692477 on or before 20th of the month following each quarter

1. Quarterly Summary of individual patients during the quarter.

Indicator		Stage	No. Patients	Clinic File Numbers
1.1	Number of patients newly enrolled in HIV care during this quarter (Include all new patients. Exclude transfer in patients. Transfer in patients should be included in row 1.4)	(Pre-ART and ART)		
1.2	Newly started on ART during this Quarter (Include both new and old patients newly started on ART)	1.2 ART		
1.3	Restarted ART after stopping or loss to follow up	1.3 ART		
1.4	Number of patients Transferred-in during this quarter	1.4.1 Pre ART		
		1.4.2 ART		
1.5	Number of patients Transferred-out during this quarter	1.5.1 Pre ART		
		1.5.2 ART		
1.6	Number of patients Stopping ART during this quarter (Include if ART stopped due to medical reasons)	1.6.1 ART		
1.7	Number of patients who Lost to Follow Up during this quarter (Include patients who have defaulted for more than 3 months from last previous Quarter)	1.7.1 Pre ART		
		1.7.2 ART		
1.8	Number of patients Re-entered the clinic after loss to follow up during this quarter (Include patients who have defaulted for more than 3 months and came back for clinic follow up)	1.8.1 Pre ART		
		1.8.2 ART		
1.9	Number of Deaths during this quarter	1.9.1 Pre ART		
		1.9.2 ART		

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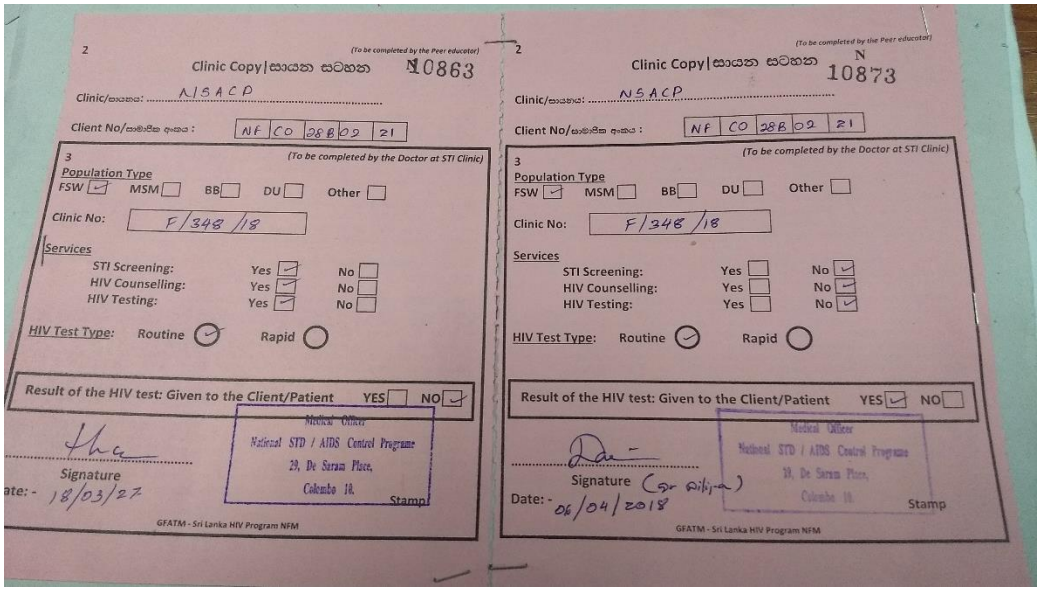
Follow-up tracing: STD clinics maintain a daily diary with case numbers of the patients who are expected to come on a given day. This diary is reviewed by the doctor everyday and those who need follow-up tracing are sent to public health inspector for action. Default cases are entered into default tracing register and all the efforts made to contact the defaulters are documented.

Key personnel involved in data management: Staff Nurse & Public Health Inspector under the overall supervision of the Consultant Venereologist. Staff at each STD/HIV clinic work as a cohesive team with complete ownership, mutual cooperation and teamwork.

Service provision to KP: Key population are referred by NGOs providing prevention services to them for STD/HIV testing. They are usually escorted by the peer educator along with a referral slip in triplicate. The referral slip documents the ID number given by the NGO and the case number given by the STD clinic so that they can be linked. Two separate referral slips are issued – one for taking HIV test and the second to collect results. STD clinics maintain separate registers for testing of KP. The referral slips with the sign and seal of STD clinic are collected by the NGO and sent to district level and national level units (SR & FPASL) under GFATM. At the national level, they are entered into MEIMS, the electronic individual KP tracking system developed by FPASL.



However, mismatches have been noted between the data reported by the STD clinics and the NGOs & FPASL on the volume of KP testing for HIV. These mismatches were identified to be due to recording issues at STD clinics, that are, in turn, due to lack of orientation and training to the STD clinic staff and absence of clear guidelines on the same. Some STD clinic staff may also need sensitisation on the issues related to key population.

Supportive supervision and handholding of STD clinic staff: SIM unit of NSACP conducts team visits to various STD clinics annually where the entire SIM team reviews their work, identifies the areas where they need to improve, provide on-site training and hands-on-

guidance. This periodic handholding of STD clinic staff helps in improving the data management system gradually.

Analysis & dissemination of results: The data submitted through quarterly returns is analysed and published every year in the annual report. Annual reports of every year are hosted on NSACP website for open access to anyone who requires information. Clinic staff also conduct brief analysis and publish key outputs on their notice boards.

Personal & Data confidentiality: Except on the case files and in the main register where the STD cases are registered, names of the patients are not documented elsewhere. All references are done through unique case ID/ file number issued to each case. Even in cases where the doctors and the facility staff identify the STD cases personally, they ensure complete confidentiality of the information and this has led to strong rapport building with the patients. This in turn contributes to better defaulter tracing and contact tracing, treatment adherence and high cure rates.

Community Participation: Being an SI initiative, there is no direct participation of the beneficiaries and communities in the data management system. However, as noted above, community participation is ensured in the delivery of STD services through strong rapport building approaches adopted by the STD clinics, outreach activities as well as the follow-up and tracing efforts by the facility staff. Engagement with the key population communities is also improving over time with increasing access and utilisation of STD services by them. KP friendly documentation practices have been evolved at STD clinics to ensure that they are linked to STD and HIV services.

Capacity building initiatives: STD clinic staff are given orientation whenever there are changes in the formats or any reporting guidelines. Quarterly and annual review meetings of the STD clinic staff are held at NSACP where they are asked to present their facility findings. Such opportunities are also used to provide capacity building on specific areas. Besides, consultant Venereologists receive in-depth training before they are posted at the STD clinics, that builds a sense of ownership as well as management skills in managing the STD/HIV clinics.

Institutional support mechanisms: The entire system of STD data management is managed by the program staff. The system is thoroughly institutionalised within the program, with fixed term postings for doctors and other staff. There are no external institutional support structures or mechanisms involved either at facility level or at the national level.

Costing & funding arrangements: The Strategic Information Management component of NSACP is fully funded by the Government of Sri Lanka. All the registers and formats are printed by the SIM unit and supplied to the STD clinics. It is a very cost effective intervention as the primary investment is in the form of time of personnel involved.

Related Publications: The following are the publications related to STD data management that provide overall guidance to the program personnel and also disseminate the data generated.

1. NSACP Annual Report
2. Guidelines for Management of Pregnant women with Syphilis
3. HIV Testing Guideline
4. Guidelines for Maintaining Registers
5. Management of Sexually Transmitted infections in Prisons
6. STI case definitions for surveillance in Sri Lanka
7. National HIV M & E Plan 2017 - 2022

KEY HIGHLIGHTS AND CONTRIBUTION TO THE PROGRAM

1. One of the key highlights is the uniformly implemented risk assessment of STI Patients using standardised formats across all the STD clinics in the country. This provides a large database to assess the demographic, STI & risk behaviour patterns of clinic attendees, and is a rich source of information for program planning.
2. Unique strength of STI program in Sri Lanka is the availability of data on etiological diagnosis of STI. This data is available for several years and provides rich insights into trends of STD and contribute to STD epidemic surveillance.
3. Comprehensive, Standardised Quarterly returns submitted by all the STD clinics provide a strong insight into various aspects of program management.
4. High level, uniform reporting for a long time led to availability of historical data with the SIM unit. This data can be potentially used for any advanced data analysis, program modelling and strategic planning.
5. STI surveillance & management is closely integrated with HIV care & management. The patient flow as well as the flow of documentation is seamless and enables easy handling of case movement from area to the other area of clinical management. Since both STD care and HIV care are provided at the same facility by the same clinic staff, the documentation is efficient and effective.

OUTCOMES & ANALYTIC OUTPUTS

Sri Lanka probably has the longest time series data on number of new STD cases, for 9 specific STDs since early 60's and for nearly 10 more STD since late 80's, making it one of the most robust STI surveillance system in the region. In the earlier years, Syphilis and Gonorrhoea were the predominant STDs diagnosed and treated. In the later years, as the number of new cases of Syphilis and Gonorrhoea came down, the number of cases of Genital Herpes and Genital Warts were rising. The STD surveillance data over the last decade is available by district and province and hence, provides rich insights into the STD epidemiology in the country and guides program planning. The following table shows the potential value of the trend data on STD cases available in Sri Lanka.

	1968-69	**1969-70**	**1975**	**1976**	**1984**	**1988**	**1989**	**2012**	**2015**	**2017**
New cases of infectious syphilis	1304	1068	3000	4273	639	515	591	300	180	72
Population rate (/100,000)	10.6	8.6	21.5	30	4.1	3.1	3.5			4.74
New cases of gonorrhoea	3248	4048	8559	7358	2860	2328	2099	404	454	237
Population rate (/100,000)	26.4	32	61.6	52	18.3	14.0	12.4			1.48
New cases of NGU	782	637				1495	1285		2219	2461
Population rate (/100,000)										15.21

	1968-69	1969-70	1975	1976	1984	1988	1989	2012	2015	2017
Ante-natal sero-reactivity			0.65%	1%	0.55%	0.52%	0.43%			
Early Congenital Syphilis	6	9	10	19	7	9	2	8		
New cases of Genital Herpes								2677	2886	2897
New cases of Genital Warts								1785	2005	2161

Some of the STD Surveillance outputs presented in NSACP Annual Report 2017 are reproduced below:

Figure 17: Number of STIs reported during 2017

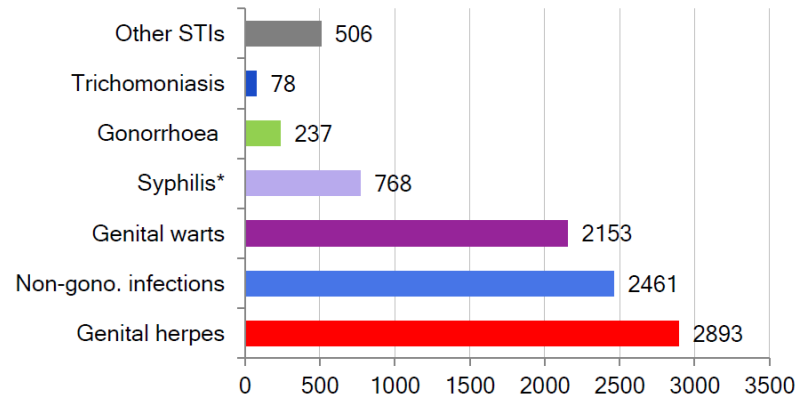


Figure 18: STI rates per 100,000 adult population (15+ years), 2013-2017

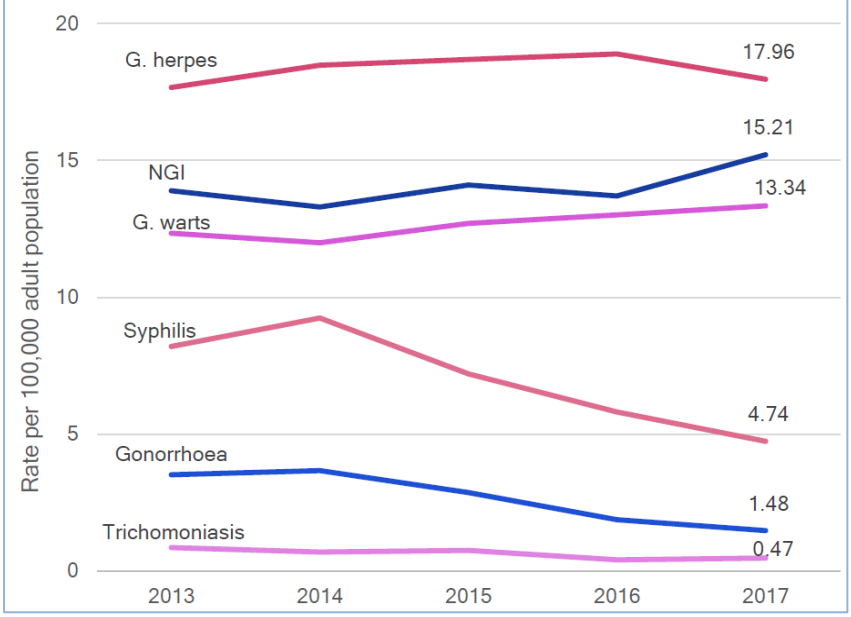
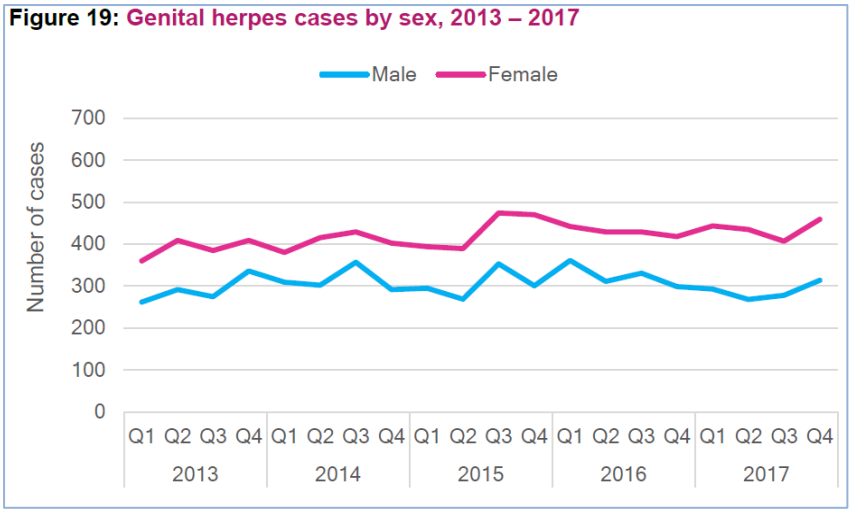


Figure 19: Genital herpes cases by sex, 2013 – 2017

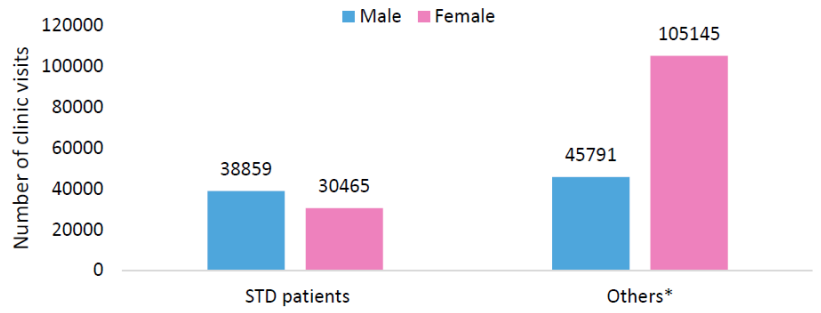


STD program monitoring data reported through quarterly returns provides a snapshot of the entire STI & HIV testing program and linkages. All this data is analysed and presented in the annual report every year. Some of the key program monitoring indicators that are generated as outcomes from the STD program monitoring data are as follows.

1. Number of new STD patients registered by sex
2. Number of contacts treated
3. Reason for attendance of newly registered STD patients by sex
4. Key population STD clinic attendees according to escorted status
5. Number of STI diagnoses* among Key populations
6. Number and type of samples screened for syphilis
7. Pap smear tests done by STD clinics & their results
8. Trends of annually reported HIV diagnoses
9. Age and sex of PLHIV reported, 1987-2017
10. Probable mode of transmission of PLHIV reported in 2017
11. Cumulative PLHIV by province of residence, 1987-2017
12. HIV tests done for Key populations by NSACP
13. HIV testing of various beneficiaries
14. HIV screening through outreach activities by all STD clinics

Some analytic outputs extracted from NSACP Annual Report 2017 are reproduced below:

Figure 35: Number of STD clinic visits by sex – 2017



** Others: clinic visits for pre-employment screening, visa screening, ANC blood testing on OPD basis etc.*

Figure 39: Number and type of samples screened for syphilis

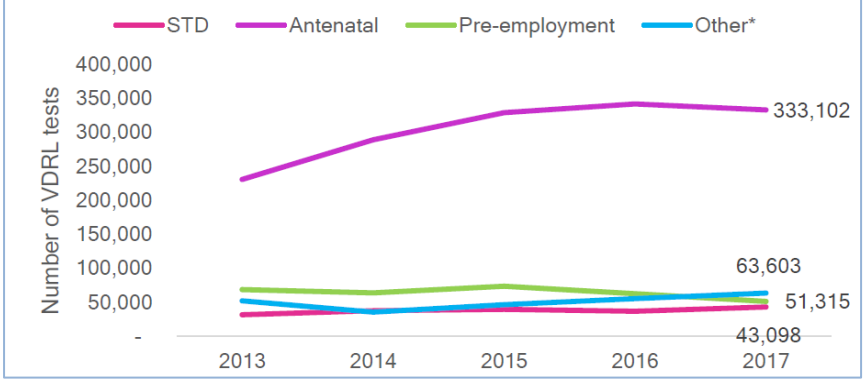
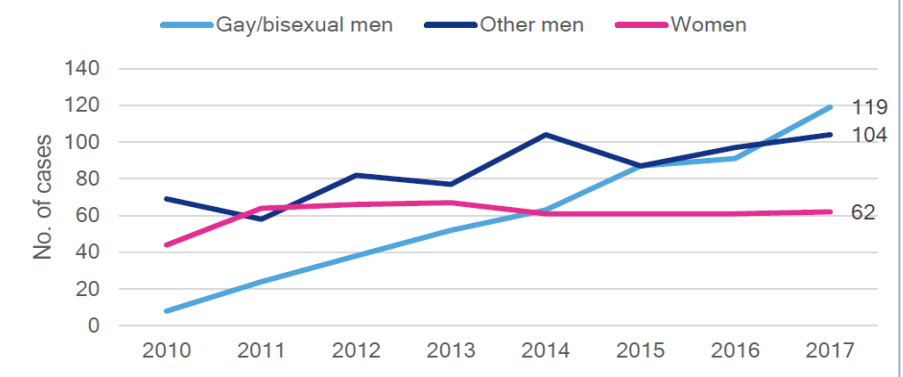


Figure 12: Trends of annually reported HIV diagnoses, 2010-2017



** Other men includes heterosexual, unknown mode etc.*

STAKEHOLDER PERSPECTIVES & EXPERIENCES ON THE BEST PRACTICE

Nursing staff are the key personnel involved in the entire documentation and reporting at STD clinics. They not only maintain the registers, reports and case files, they also constantly update them and keep them accessible for the review and use of the doctors. Nursing staff are also involved closely, sometimes entirely, in the preparation of STD clinic quarterly return to be submitted to the SIM unit NSACP. Interaction with the STD clinic staff showed that the STD case forms and registers are very easy to document and are well structured. The staff has a clear idea about various fields and columns in the formats and are well conversant with the way to fill the same. *"We fill the initial few questions in the STD patient form while the clinical details are filled by the doctors. We prepare a separate file for every STD case and regularly update it with lab reports, contact tracing details, etc.,"* commented a staff nurse at one of the STD clinics. *"We have good nursing staff at each STD clinic and we share the responsibilities of updating various registers, besides attending to patient care. Of course, we would prefer a lesser number of registers to maintain,"* said another nurse. *"SIM unit of NSACP printed several new registers and issued to all centres. These are very good to handle and document. Made our life easier,"* said a pharmacist at one of the STD clinics.

Clinicians find the STD case forms well organised and enables easy case management, follow-up and closure of an episode. *"We know the importance of follow-up tracking and default tracing efforts in overall STD case management. Hence, we ask our nursing staff to maintain the daily diary properly, and we check it every day to take a decision on what to do with the defaulter cases,"* said the consultant Venereologists at one of the STD clinics. "At NSACP STD clinics, we are very thorough with documentation. *"We cover every aspect of management including PEP, employment screening records, stocks & supplies, posting and duties of rotating doctors, trainings and CMEs, etc.,"* opined another STD consultant.

Public Health Inspectors are also involved extensively in documentation at the STD clinics, especially the male STD clinic. Default tracing and contact tracing, outreach activities, surveys conducted among specific population groups, etc are documented in the appropriate registers by the PHIs or nursing staff. *"Default tracing is a regular job. We try to reach out to the defaulters by phone, mail and home visits. Some are successful, some are not, but we document every effort in our registers,"* said a PHI. PHIs at some STD clinics are also tasked with preparation of the quarterly return. *"Quarterly return requires us to gather information from a wide range of registers and case files. It takes considerable time to do so. EIMS should make this process simpler,"* remarked one PHI who prepares quarterly return for his STD clinic.

"After the quarterly return submission, we prepare some graphs and maps in Excel and put it in the clinic display boards. We need more training in using Excel. Then we can do more analysis," wished a nurse and a PHI, who together prepare graph charts for their clinic.

LESSONS LEARNT – CONTRIBUTING FACTORS, SCALE UP/REPLICABILITY, LIMITATIONS & RECOMMENDATIONS

Scale up of the STD surveillance and monitoring system goes naturally with scale up of STD clinics over the years. Though being a paper-based system, Sri Lanka's STD data management system is an advanced system in terms of its outputs, productivity, efficiency and effectiveness. By far, the **important contributory factors** that make the STD Surveillance & Program Monitoring system under NSACP, a successful best practice include the following.

1. Well-thought out, structured, standardised formats, that are not changed frequently and hence stabilised in the program
2. Quarterly reporting than monthly reporting as in many countries, that prevents reporting and data management from becoming a burden to the clinic staff
3. Complete ownership and accountability taken by the consultant Venereologists and the training they receive as a part of their induction process plays a critical role.
4. Keen focus and close follow-up by the SIM unit of NSACP
5. Stable leadership at SIM unit with a long-standing institutional memory and a passion for bringing constant improvements in the system

Based on the observations and the lessons learnt, the following issues may be highlighted as **recommendations to overcome certain limitations**.

1. The STD surveillance and program monitoring system is already scaled up across the country. However, there is scope for improving the quality of documentation at various centres. More frequent supervision and handholding visits at the field level may further improve the quality of data.
2. The number of registers can be reduced and some amount of duplication can be avoided if the electronic data management system can be put into place.
3. The Venereologists/ physicians in charge of the STD clinics may be trained in data supervision, data quality protocols, and conducting quality checks. This will create an internal quality control mechanism and will improve the overall quality of the data.
4. All the STD clinic staff may be trained in basic data analysis and interpretation so that they review their centre data regularly and use the findings to refine their functioning. They may also be trained in the use of MS Excel and other basic software.
5. Clear guidelines may be issued for the documentation related to testing of key population referred by the NGOs. This may be coupled with a thorough sensitisation of the doctors, nursing staff and PHI about the key population, their lives, identity related issues and how to ensure a stigma or bias-free environment for them and enable them to access services.
6. A few indicators such as treatment completion rates, defaulter tracing rates, contact testing rates, etc. will portray the role of M&E systems in a better way, thereby adding to the making of a best practice in SI.

CONCLUSION

STI data management systems form the backbone of STI & HIV control in Sri Lanka. It is well structured & well established across all the STD clinics of the country. Registers and formats are comprehensive and well structured. Personnel are trained to manage the systems well. Capacity building in the areas of data analysis & use along with greater handholding visits will fix some quality issues. Upgrading to electronic version with data quality monitoring will significantly reduce the burden of documentation and make it more effective.

The Qualitative Best Practice Scorecard applied to the STI Surveillance & Program Monitoring System presented below summarises the entire narrative. STI surveillance and program monitoring data forms the central source of information for entire program management under NSACP and hence, has a great relevance and critical central value. Community participation is not applicable directly to SI system, it is more relevant in the context of delivery of STD services. Internal stakeholders, i.e., the facility staff need greater empowerment in terms of capacity building in data analysis, reducing the burden of documentation, etc. Data confidentiality in system is high. Replicability in newer centres or in other countries is high due to level standardisation already achieved. Being a paper-based system, the amount of time and efforts of the clinic staff in documentation and reporting is disproportionately high for outputs that are generated from the system. Electronic system would make it highly efficient. Effectiveness is high since the system appropriately serves its intended purpose of STD epidemic monitoring and program monitoring. Sustainability is high since the system is thoroughly institutionalised with HR, systems and requirements being taken care of by the national program and provincial health departments.

Qualitative Best Practice Scorecard

Category	Criteria	Rating
Context	Relevance	High
Process	Community Participation	Not Applicable
	Stakeholder Collaboration	Moderate
	Ethical Soundness	High
	Replicability	High
Outcomes	Efficiency	Moderate
	Effectiveness	High
	Sustainability	High

KEY HIGHLIGHTS OF THE BEST PRACTICE

- **Risk Assessment of STI Patients using standardised formats**
- **Etiological diagnosis**
- **Comprehensive, Standardised Quarterly returns**
- **High level, uniform reporting & historical data**
- **STI surveillance & management closely integrated with HIV care & management**