

# Best Practices 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.**



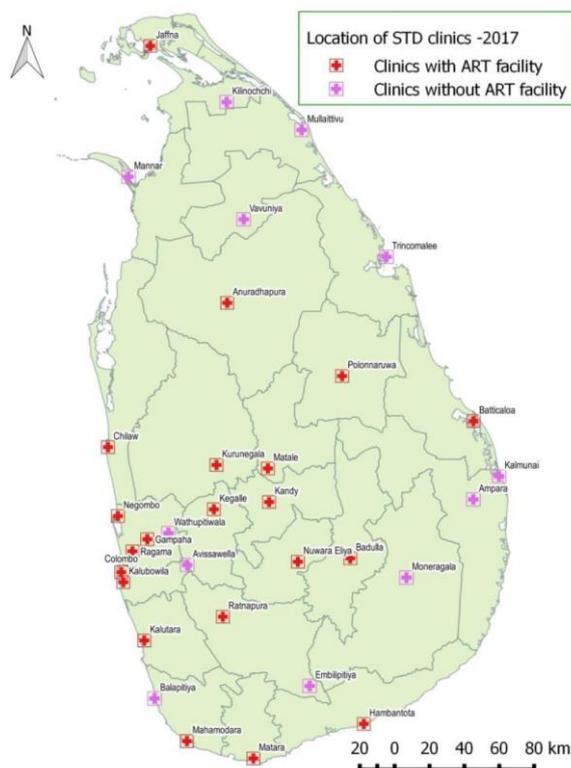
MINISTRY OF  
HEALTH  
SRI LANKA



NATIONAL  
STD/AIDS  
CONTROL  
PROGRAMME



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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. We also appreciate the contributions made by SIMU team, all the NSACP senior officials, key stakeholders and peripheral STD clinic team members. 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/DGHT-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*' 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,**

Director,

National STD/AIDS Control Programme (NSACP),

Sri Lanka.

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

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.

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 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/INDIA.

## Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
BB	Beach Boys
BCC	Behaviour Change Communication
CBO	Community Based Organisation
CDC	Centers for Disease Control and Prevention
CHW	Commercial Sex Workers
CSOs	Civil Society Organizations
DHIS 2	District Health Information System 2
DIC	Drop in Centre
EID	Early Infant Diagnosis
EIMS	Electronic Information Management System
ELISA	Enzyme Linked Immunosorbent Assay
EMR	Electronic Medical Record
EMTCT	Elimination of Mother to Child Transmission
EPI	Epidemiology
EPI-Unit	Epidemiology Unit
EQAS	External Quality Assurance Scheme
FHB	Family Health Bureau
FPASL	Family Planning Association Sri Lanka
FSW	Female Sex Worker
GAM	Global AIDS Monitoring
GFATM	Global Fund to Fight AIDS, TB and Malaria
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus

HIV +	Human Immunodeficiency Virus Positive
HSS	HIV Sentinel Surveillance
HTS	HIV Testing Services
I-NGOs	International Non-Governmental Organizations
IBBS	Integrated Biological and Behavioural Surveillance Survey
ICTA	Information Communication Technology Agency
IDH	Infectious Disease Hospital
IEC	Information, Education and Communication
KP	Key Population
LFU	Loss to Follow Up
LIFE	Lanka Interoperability Framework
LIMS	Laboratory Information Management System
M & E	Monitoring and Evaluation
MSM	Males who have sex with males
NAC	National AIDS Committee
NGO	Non-Government Organisation
NRL	National Reference Laboratory
NSACP	National STD/AIDS Control Programme
NSP	National Strategic Plan
OI	Opportunistic Infection
OPD	Out-Patient Diagnosis
OST	Oral Substitution Treatment
PAC	Provincial AIDS Committee
PE	Peer Educator
PEP	Post Exposure Prophylaxis
PHI	Public Health Inspector
PIMS	Patient Information Management System
PLHA	People Living with HIV and AIDS
PLHIV	People Living with HIV
PMS	Pharmacy Management System

PMTCT	Prevention of Mother to Child Transmission
PreP	Pre exposure Prophylaxis
PWID	People Who Inject Drugs
QA	Quality Assurance
SD	Strategic Direction
SI	Strategic Information
SIM	Strategic Information Management
SIMU	Strategic Information Management Unit
SLBFE	Sri Lanka Bureau of Foreign Employment
SM	Social Media
SMO	Social Media Outreach
SoA	Service Oriented Architecture
SoPs	Standard Operating Procedures
SRH	Sexual And Reproductive Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TA	Technical Assistance
TB	Tuberculosis
TG	Transgender
TI	Targeted Intervention
UNAIDS	Joint United Nations Program on HIV/AIDS
UNICEF	United Nations Children's Fund
VD	Venereal Disease
VDRL	Venereal Disease Research Laboratory test
VHS	Voluntary Health Services
VL	Viral Load
WHO	World Health Organisation
WHO SEARO	World Health Organisation South East Asia Regional Office

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# **1. Background, Objectives & Methodology**



# 1. Background, Objectives & Methodology

## 1.1. Introduction to NSACP & Strategic Information Component

National STD/AIDS Control Programme (NSACP) of Government of Sri Lanka is a comprehensive program aimed at prevention and control of STDs & HIV/AIDS being implemented by the Ministry of Health, Nutrition & Indigenous Medicine in all the provinces of Sri Lanka. It is under the overall supervision and guidance of the National AIDS Committee. It offers a bouquet of interventions ranging from STD care & treatment, HIV counselling & testing, blood safety, condom programming, prevention of mother to child transmission of HIV, Anti-retroviral Therapy (ART) for HIV positive individuals, prevention interventions for key population (KP) in collaboration with implementation partners and NGOs, and various IEC activities.

The country is currently implementing its National Strategic Plan (NSP) 2018-2022 for HIV/AIDS control. NSP 2018-22 aims at ending AIDS in Sri Lanka by 2025, an ambitious target that is five years ahead of the global target of ending AIDS by 2030. Since Sri Lanka has successfully established the universal immunisation program and successfully eradicated Malaria, government of Sri Lanka is committed to reach this ambitious target by 2025. The commitment and ownership of the government in supporting the NSACP is evident from the fact that the entire program budget is supported by the government, except the key population prevention component that is supported by GFATM.

The Strategic Information Management (SIM) System is the key system that is responsible for providing information and evidence to guide the country in its health policy and planning, resource allocation, program management, service delivery and accountability. A robust SI system is critical for strong evidence driven programming. Evidence from surveillance & estimations, program monitoring and HIV/AIDS research together complement each other in providing direction to the programmatic decision making.

**The unique strengths of SI system** under NSACP are as follows.

- National HIV Monitoring & Evaluation Plan 2017-22 outlines the broad vision, objectives, approaches and tools used in the program
- Standardized & uniformly implemented Excel-based quarterly reporting system from all STD & HIV clinics across the country
- Good time series data on HIV prevalence among key population groups through several rounds of HIV Sentinel Surveillance and IBBS
- Periodically updated HIV estimations based on Spectrum & Asian Epidemic Model
- Strong HIV case reporting system with good linkages between various centres involved in HIV testing and treatment
- Redesigned, updated website as a resource centre for all information on HIV/AIDS including all the previous reports and publications

- Long-standing, dynamic leadership of SIM unit with strong institutional memory as a great asset to NSACP
- Replacing the paper-based system with an EIMS for efficient patient management and monitoring of STD and HIV care & treatment program.

**The third Strategic Direction (SD3)** of NSP 2018-2022<sup>1</sup> aims at strengthening Strategic Information systems and Knowledge Management for an evidence-based response and has identified four sub-strategies. They are as follows.

3.1. HIV & STI Surveillance

3.2. Program Monitoring & Routine Reporting

3.3. HIV/AIDS/STI Research

3.4. Knowledge Management

Under each of these sub-strategies, priority actions to be undertaken have been identified in the NSP. They are as follows.

### **3.1. HIV & STI Surveillance**

- Ensure regular HSS every two years among KPs and strengthen the system, conduct IBBS every 5-6 years and coordinate and integrate the two systems
- Prioritise surveillance among MSM with wider coverage by location, by sub-typologies and employ innovative methods for recruitment
- Further strengthen STI surveillance & ensure data is entered electronically & reported regularly
- Strengthen mortality surveillance
- Establish drug resistance surveillance for HIV
- Establish a strong HIV case-based surveillance system
- Integrate the entire HIV case tracking system from screening to viral suppression into the new electronic database that is being developed

### **3.2. Program Monitoring & Routine Reporting**

- Provide regular feedback from the SIM Unit to ART centres regarding LFU and any other relevant findings after analysing quarterly ART returns and Excel databases
- Analyse program data on a regular basis
- Fast track the electronic system for data management through an integrated web-based data system
- Enhance capacity of NSACP and facility staff to conduct regular analysis of existing data

### **3.3. HIV/AIDS/STI Research**

- Create an environment that supports research involving relevant research organisations and universities and revitalise the research sub-committee of NAC

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<sup>1</sup> Towards Ending AIDS, National HIV/STI Strategic Plan, Sri Lanka, 2018-2022

- Plan special studies and surveys to answer key questions
- Engage KPs, and CBOs as relevant in research studies and surveys

### 3.4. Knowledge Management

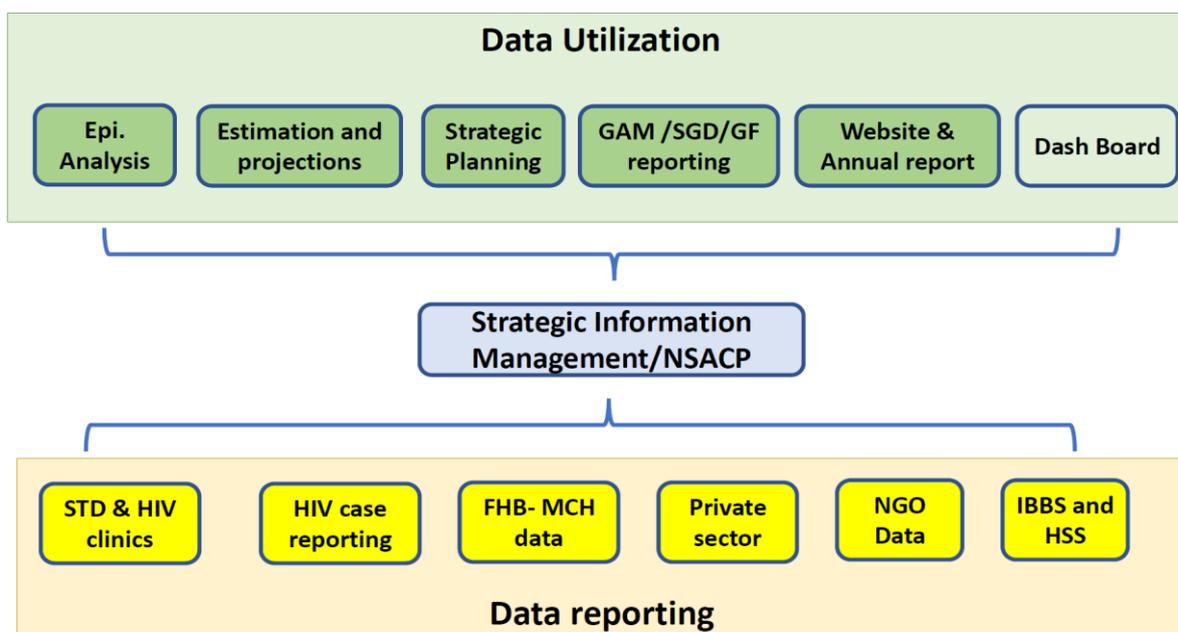
- Develop an overarching Knowledge Management Strategy for NSACP

## 1.2. Overview of SI system under NSACP in Sri Lanka

Strategic Information Management system under NSACP in Sri Lanka has the following components.

1. Program monitoring & reporting from all STD clinics & HIV clinics
2. HIV Surveillance (HIV Sentinel Surveillance & IBBS) & HIV Estimations
3. HIV Case Reporting
4. HIV/AIDS related research activities

The SIM Unit of NSACP manages the Program Monitoring functions of NSACP. It is responsible for ensuring availability and accessibility to complete information on indicators listed in the strategic plan document. SIM unit closely monitors the quarterly reporting from STD & HIV clinics across the country. All the quarterly reports are verified and compiled regularly. The data is published in every annual report. Standardised formats have been developed and used uniformly across all the centres. Quarterly return forms from STD and ART clinics have been revised recently to capture all the relevant information. Individual excel reporting of PLHIV in pre-ART care and on ART captures all the critical information required for follow up and case tracking, as well as cascade analysis. Data is analysed regularly and published in every annual report of NSACP.



SIM unit conducts periodic trainings and supervisory visits to the peripheral centres to monitor and handhold the staff in M&E activities. It also conducts quarterly review meetings of all STD clinics to review the documentation and outcomes at these centres.

SIM unit brings out a series of publications showcasing the progress and achievements of NSACP from time to time. It also coordinates reviews and assessments of various program components, including mid-term and external reviews of NSACP. SIM unit maintains the website of NSACP that is one of the most resourceful online repositories for all information related to HIV/AIDS in Sri Lanka. It is constantly updated and made more dynamic for ease of use. The transparency and open data policy of NSACP, Sri Lanka is worth emulating by many other countries.

SIM unit also coordinates the data compilation and submission for international requirements as and when required. SIM Unit also compiles and monitors the key and vulnerable population prevention programs under GFATM. SIM unit supports the Epi Unit in the planning and implementation of surveillance activities including HIV Sentinel Surveillance & IBBS. SIM unit also carries out HIV estimations once in two years and brings out the overall HIV estimates for Sri Lanka.

SIM unit has developed a National HIV M&E Plan 2017-22 that outlines the broad vision, objectives, approaches and tools used in the program. This is a comprehensive document that supports the roll out and implementation of M&E activities in the country. This document is being modified in line with the new NSP 2018-22.

SIM Unit has taken lead in shifting the entire paper-based system of monitoring to an electronic IT based platform through the development of Electronic Information Management System (EIMS). EIMS is aimed at integrating all the program components of NSACP including HIV care and treatment, Laboratory Information, ART and pharmacy management and with all peripheral centres linked to NSACP. It will also capture individual patient tracking data from ART centres.

The Global Fund supports the interventions for key and vulnerable populations in Sri Lanka. Ministry of Health, Nutrition & Indigenous Medicine through NSACP is the Principal Recipient 1 (PR1) that works with and collects data related to prison inmates and migrants. Family Planning Association (FPA) of Sri Lanka is the Principal Recipient 2 (PR2) and is the nodal agency implementing the Global Fund funded program for prevention among KP. Under the GFATM program for key populations, a strong and robust M&E system has been put in place by FPA that captures individual level information on KPs and the services provided to them. All components of field level recording including KP registration and service delivery through peer calendar, referrals & escorts and HIV testing are all integrated into the system. It has been successfully implemented and stabilised across all program units.

The key strategies adopted by NSACP for HIV Surveillance and epidemic monitoring include HIV Sentinel Surveillance once in two years, Integrated Biological & Behavioural Surveillance, HIV Case Reporting and HIV Estimations. Surveillance activities under NSACP are largely

coordinated by the Epidemiology Unit at NSACP. Sri Lanka has one of the longest and well-managed systems for HIV Sentinel Surveillance in the world. Right from the first round conducted in 1990, overall 22 rounds of HIV Sentinel Surveillance were conducted over the last 27 years i.e. from 1990 – 2017. The last round was held in 2016. The last round of HIV Sentinel Surveillance HSS 2016 included four risk groups – FSW, MSM, PWID & Clients of FSW – covering almost all provinces of the country. After the last round of size estimations of KP in 2013 and IBBS in 2014, NSACP has conducted the latest round of key population size estimation in 2018.

HIV case reporting system in Sri Lanka has improved significantly since 2011 with better reporting from STD clinics, private hospitals/labs and blood banks, that are the three primary sources of HIV screening in Sri Lanka. All confirmatory tests for HIV are done only at NRL, NSACP and samples screened HIV positive from all sources are sent to NRL for confirmation. This is a unique strength of Sri Lanka's program where all HIV positive cases are confirmed from a single point, making it very efficient to identify and track the positive cases for follow up. Entire HIV case reporting is monitored and cases tracked by the Epidemiology (Epi) unit of NSACP, that coordinates very well with the reporting centres and NRL. New case reporting format (revised 1214 form) has been introduced recently and is being widely used by all the reporting centres. This form captures the demographic and epidemiological information required for surveillance purposes. Epi Unit publishes the case reporting data every quarter in the form of a one-page epidemic update. Aggregate numbers of HIV testing are reported every year in the NSACP annual report. More detailed analysis of case reporting data is shared with other NSACP officers, STD clinics, etc. once in six months.

NSACP commissions and conducts regular research activities on various key areas in order to generate evidence to support program. Some small surveys have been conducted such as the RSA on Transgender people, Acceptance of the OraQuick saliva test, rapid assessment of drug users, etc all of which have direct relevance to program design.

### **1.3. Documenting Best Practices in Public Health & HIV/AIDS Response**

Normally, programs rely on research or surveillance or any more formal data collection process for evidence generation. However, in contrast to the research-based evidence, practice-based evidence derived from programs implemented in real-life settings is likely to be a more suitable source of evidence for inspiring and guiding public health programs. Selection of best practices from the array of implemented programs is one way of generating such practice-based evidence. Yet the lack of consensus on the definition and criteria for practice-based evidence and best practices has limited their application in public health so far.<sup>2</sup>

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<sup>2</sup> Ng, E., & de Colombani, P. (2015). Framework for selecting best practices in public health: a systematic literature review. *Journal of Public Health Research*, 4(3). <https://doi.org/10.4081/jphr.2015.577>

"Best practices" are defined as those practices that, on rigorous evaluation, demonstrate success, have an impact, and can be replicated in other settings (Heffes, 2002; UNESCO, 2011). To identify best practices, research is directed to those practices that have been proven to generate results and can serve as a model to be learned from and replicated by others (Goetzal, Guindon, Turshen, & Ozminkowski, 2001; Zairi, 1998). The goal of best practices is to promote creative, successful, and sustainable solutions to address a particular practice (UNESCO, 2011). Best practices in health care are seen as having the potential to transform patient outcomes and improve the standards of health care by informing clinical guidelines and, as a result, practice (DuFour & Eaker, 1998; Ploeg, Davies, Edwards, Gifford, & Miller, 2007). Although the benefits of best practices were evident in the programs, their potential to inform practice and policy may be hampered because of the lack of standardized mechanisms to follow in devising and reporting best practices.<sup>3</sup>

A best practice is commonly defined as a technique or method that, through experience and research, has proven reliably to lead to the desired result. "Best practices" are exemplary public health practices that have achieved results, and which need to be scaled up so as to benefit more people. The expansion and institutionalization of successfully tested best practices requires strategic planning. There are several creative and constructive actions by people and organizations in the health sector to improve the health outcomes of people. Disseminating knowledge of such actions widely may prevent the repetition of mistakes and loss of valuable time. Thus, the main rationale for documenting and sharing "best practices" is to enable persons and organizations working in the health sector to avoid reinventing the wheel; to improve performance and avoid the mistakes of others. Documenting and sharing best practices affords one the opportunity to acquire knowledge on lessons learned, how to improve and adapt strategies and activities through feedback, reflection and analysis, and implement large-scale, sustained and more effective interventions.<sup>4</sup>

Identifying practices around the world that work in responding to the AIDS epidemic, and examining how and why they work is a task of programmatic learning. The concept of Best Practice is not reserved for "ultimate truths" or "gold standards." Best Practice means accumulating and applying knowledge about what is working and not working in different situations and contexts. In other words, it is both the lessons learned and the continuing process of learning, feedback, reflection, and analysis (what works, how and why, and so forth). In general, Best Practice in public health can be anything that works, in full or in part, and that can be useful in providing lessons learned.<sup>5</sup>

The second approach is to carry out a thorough analysis using specific, established criteria that look at strengths and weaknesses, successes and failures. UNAIDS uses a set of five criteria as

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<sup>3</sup> Maina, G., Mill, J., Chaw-Kant, J., & Caine, V. (2016). A systematic review of best practices in HIV care. *Journal of HIV/AIDS & Social Services*, 15(1), 114–126.

<sup>4</sup> A Guide to Identifying and Documenting Best Practices in Family Planning Programs. Geneva: World Health Organization; 2017.

<sup>5</sup> UNAIDS Best Practice Collection – Summary Booklet of Best Practices in Africa, Issue 2, 2000

a guide: effectiveness, efficiency, relevance, ethical soundness, and sustainability. While candidate Best Practices should meet one or more of the criteria, they do not need to meet them all. In summary, the Best Practice process helps to identify and describe the lessons learned and the keys to success of any given project, program, or policy. UNAIDS Best Practices Collection Series captures some of the best practices in HIV/AIDS response.<sup>6</sup>

AWARE-HIV/AIDS' efforts on Promising and Best Practices (PBP) in the fight against STI and HIV/AIDS in West Africa defines a promising and best practice as "an experience, initiative or program that has proven its effectiveness and its contribution to the response to the HIV/AIDS epidemic, and that can serve as an example and inspiring model for others (program planners, managers, and implementers)". To be accepted as a promising and best practice, the experience should meet the following criteria: It should be; useful and relevant, effective, innovative, produce results within a reasonable time, efficient/cost-effective, ethically sound and sustainable.<sup>7</sup>

WHO (2008) provides a tool to appraise best practices called *Guide for Documenting and Sharing Best Practices in Health Programs*, and proposes the following criteria to define a best practice in public health: program effectiveness, relevance, ethical soundness, sustainability, possibility of duplication, partnership, community involvement, and political commitment.

A best practice is defined as an intervention that has shown evidence of effectiveness in a particular setting and is likely to be replicable to other situations. Regardless of the area of public health, interventions should be evaluated by their context, process and outcomes. A best practice should hence meet most, if not all, of eight identified evaluation criteria: **relevance, community participation, stakeholder collaboration, ethical soundness, replicability, effectiveness, efficiency and sustainability.**<sup>8</sup>

#### 1.4. Objectives of documentation of SI best practices under NSACP

This exercise of documenting best practices in Strategic Information under NSACP has been carried out with the following objectives.

- ✓ To identify & systematically document the best practices in Strategic Information under NSACP in Sri Lanka
- ✓ To understand the contribution of the SI best practices in overall achievements of NSACP

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<sup>6</sup> UNAIDS Best Practice Collection – Summary Booklet of Best Practices in Africa, Issue 2, 2000

<sup>7</sup> AWARE-HIV/AIDS - Promising and best practices in HIV/AIDS prevention and care for West and Central Africa, FHI360, 2006

<sup>8</sup> Ng, E., & de Colombani, P. (2015). Framework for selecting best practices in public health: a systematic literature review. *Journal of Public Health Research*, 4(3). <https://doi.org/10.4081/jphr.2015.577>

- ✓ To capture the lessons learnt from the past experiences of a wide range of stakeholders involved in the development & implementation of the best practices for further improvements
- ✓ To showcase, disseminate & promote the key SI processes and achievements to the larger public, national and international scientific communities, and other social or health programs.

## 1.5. Methodology of documenting best practices in SI

### FRAMEWORK FOR IDENTIFYING AND DOCUMENTING SI BEST PRACTICES

In spite of all the various models, definitions and approaches to capture best practices in public health, more specifically in the field of HIV/AIDS, there is no standardisation in defining and reporting of best practices in HIV/AIDS response from the past literature across the world. There are hardly any best practices reported, more specifically, in the area of Strategic Information on HIV/AIDS. Further, SI is not a direct service delivery component of any program. It is a hidden underlying enabler that facilitates, documents and reports the service delivery. It is a critical input for monitoring, evaluation and improving programs. Thus, some of the above discussed criteria such as effectiveness and efficiency cannot be measured or commented upon for SI initiatives. Some other criteria such as relevance, community participation, stakeholder collaboration, ethical soundness, replicability and sustainability may be applied with some adaptation and in a narrower sense to SI initiatives.

A general over-arching idea that goes across various reports on best practices in public health and HIV/AIDS is that of describing a process of intervention or activity that has shown some perceptible contribution to the overall program objectives, capturing the lessons learnt from the experience and exploring the potential for scale up or replication in other settings. It is this broad idea that has been used in identifying best practices in Strategic Information under NSACP in Sri Lanka. However, they have also been examined from the lens of the above-mentioned eight standard criteria. The framework for identifying and reviewing the best practices in SI with its eight elements and applicability to the context of SI in HIV/AIDS, is presented below:

1. **Relevance to the program** – criticality in the program; responding to the programmatic needs
2. **Community participation** – involvement of beneficiaries in implementation; Rapport-building in clinical services; treatment adherence and contact tracing
3. **Stakeholder collaboration** – ownership and involvement of internal stakeholders (program personnel) and external stakeholders (institutions, donors, health department units, non-health players)
4. **Ethical soundness** – respect for the privacy, confidentiality and rights of beneficiaries & communities; data sharing policies;

5. **Replicability** – scale up potential; replication in newer settings and changing context; replication in other countries
6. **Efficiency** – value and value addition of the outputs from the SI system vis-à-vis the investments in terms of time and efforts of program personnel
7. **Effectiveness** – SI systems serving their right purposes and stated objectives; contributing effectively to the program goals, strategic planning and policy making
8. **Sustainability** – resource availability (HR, systems, costs, material) over a long time to ensure smooth implementation and improving quality

A qualitative scorecard has been developed for each best practice, capturing how the best practice fares on each of these eight criteria.

Best Practice Qualitative Scorecard		
Category	Criteria	Rating*
<b>Context</b>	Relevance	
<b>Process</b>	Community Participation	
	Stakeholder Collaboration	
	Ethical Soundness	
	Replicability	
<b>Outcomes</b>	Efficiency	
	Effectiveness	
	Sustainability	

\* High/Moderate/Low/Not Applicable/Cannot be commented

## APPROACH AND OPERATIONAL STEPS

In view of the current status of implementation of various SI activities under NSACP, the best practices have been classified into

- ✓ Existing – Already in place with demonstrated value addition to the program
- ✓ Emerging – In the process of development with an objective and vision to bring in significant change in the program implementation

Methodology of identifying and documenting best practices included the following:

- ✓ National consultation with key stakeholders to brainstorm on the best practices: A national consultation was held at the office of SIM Unit, NSACP, Colombo on 05 Sept 2018 where a wide range of stakeholders including NSACP program managers, SIM Unit staff, Epi Unit staff, Consultant Venereologists, nursing staff and public health inspectors from STD & HIV

clinics, etc. participated. The idea of best practices in SI, the selection of areas as best practices and important aspects of each of the identified best practice were discussed in the consultation.

- ✓ Field visits to STD/HIV clinics and Secondary review of registers & reporting formats
- ✓ Secondary analysis of last one year database of relevant data
- ✓ Review of the software involved
- ✓ Primary data collection in the form of Group Discussion (GD) & In-depth Interviews (IDI) of key stakeholders from national to facility level. Interview guide used for primary data collection is provided as annex.

Various Primary Respondents who were interviewed during the process of data collection include the following:

- ✓ Director, NSACP
- ✓ NSACP SIM Unit
- ✓ NSACP Epi Unit
- ✓ Staff of STD clinics (3) & HIV clinics (3)
- ✓ Software development agencies related to website and EIMS
- ✓ CSDF, NGO working with FSW intervention
- ✓ M&E team of Family Planning Association of Sri Lanka

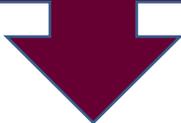
## **FORMAT FOR DOCUMENTING SI BEST PRACTICES**

Through the consultation, the following format has been agreed up on to document each best practice.

1. Title
2. Abstract/ Summary/ Synopsis
3. Introduction/ Background including rationale
4. Objectives
5. Evolution/ Historical perspective
6. Details of implementation
7. Key highlights and contribution to the program
8. Outcomes & Analytic Outputs
9. Stakeholder perspectives & experiences on the best practice
10. Lessons learnt – Contributing factors, scale up/ replicability, limitations & recommendations
11. Conclusion including Best Practice Qualitative Scorecard
12. References

While a few references specific to the best practice have been mentioned at the end of each section, common references have been pooled at the end of the document. The subsequent sections now present each best practice in the above stated format.

## **2. Existing Best Practices in Strategic Information**



- 2.1. STI Surveillance and Program Monitoring under NSACP - An Indigenously evolved best practice in Strategic Information**
- 2.2. HIV Case Tracking and Management System under NSACP - Gearing up for End of AIDS**
- 2.3. Data Archiving and Dissemination Practices under NSACP - A Model for the South East Asia**
- 2.4. Cohort tracking of PLHIV on ART in Sri Lanka**

## 2. Existing Best Practices in Strategic Information

### 2.1. 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 modeling. 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 span 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 STD 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.

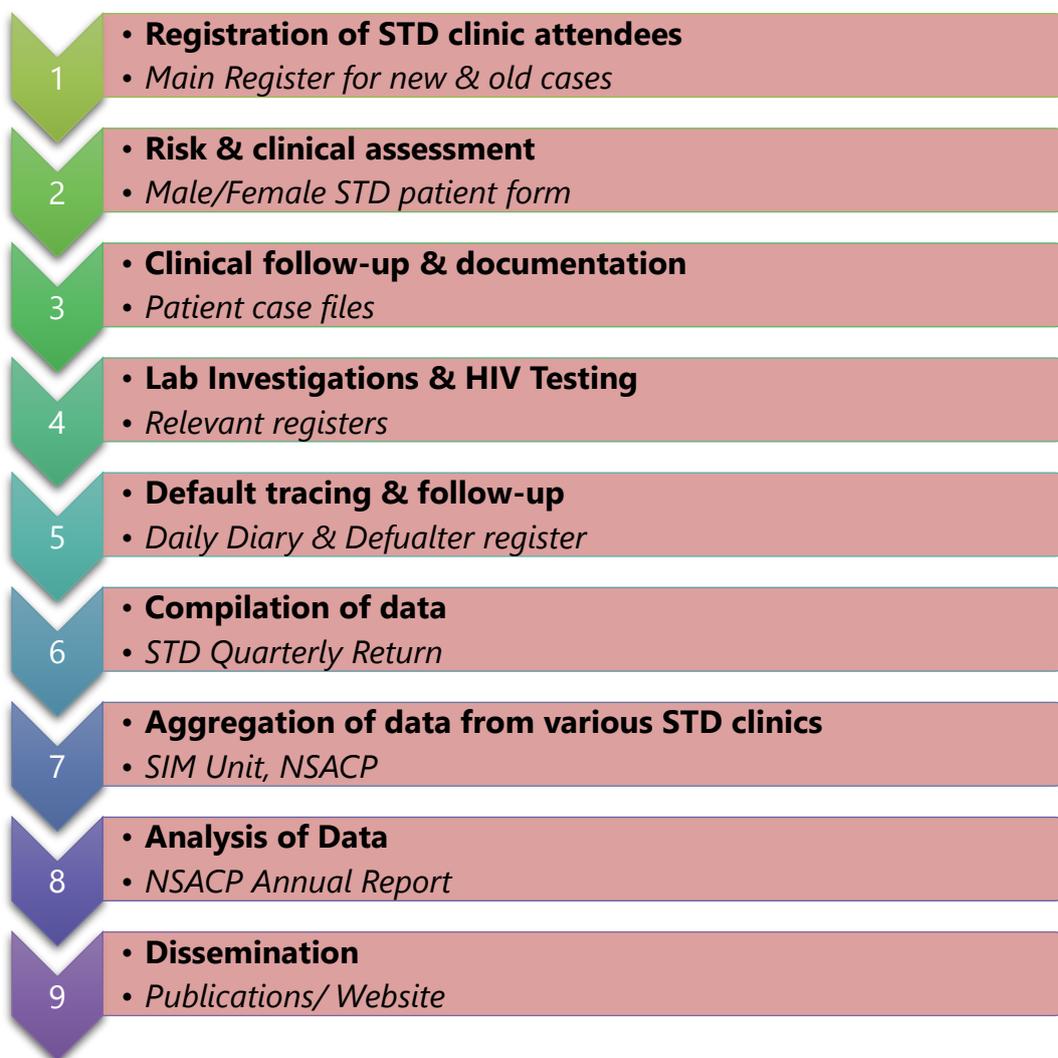
Information on occupation of the cases, contact tracing and treatment, sources of infections, etc. are also documented from the early years. Administration reports in earlier years and annual reports in the later years capture all this information regularly. The reports of early 80's also capture the 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. Counseling 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: 20.05.2017)										
Name of the STD clinic		Period of the return		Return completed by (Name and designation)		Checked by (Name and designation)		Date of completion		
Table 1. Total number of new diagnoses* by age group and sex (Source: Main Register- 2017)										
Sl No	Name of the Disease	Male				Total	Female			
		<15	15-24	25-49	50+		<15	15-24	25-49	50+
1.1	Infectious syphilis									
1.2	Late syphilis									
1.3	Early Congenital Syphilis									
1.4	Late Congenital Syphilis									
1.5	Gonorrhoea and proctitis/gonorrhoea									
1.6	Chlamydia									
1.7	NGU/Proctitis									
1.8	Chlamydia									
1.9	Genital herpes									
1.10	Genital warts									
1.11	HPV (Infectious disease) (ICD)									
1.12	Trichomonas									
1.13	Condylomata									
1.14	Bacterial vaginosis									
1.15	Other STIs									
1.16	TOTAL STI									
1.17	Non-STD/Infectious									
1.18	NO illness									
1.19	GRAND TOTAL									

\*Note: Ambiguities arise due to different definitions for many diagnoses

### ART Return

Quarterly Return of HIV clinic/ART center			
Name of the HIV Clinic/ART Center		Period of the return	
Started on		Ended on	
Name of the person who completed this form: _____			
* Quarterly Summary of individual patients during the quarter:			
Indicator	Sl No	No. Patients	Clinic File Numbers
1.1	Number of patients newly entered in HIV care during the quarter (Source of registration: District health officers)		
1.2	Number of patients who were lost to follow up during the quarter (Source of ART: District health officers)		
1.3	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.4	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.5	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.6	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.7	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.8	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		
1.9	Number of patients who were transferred out during the quarter (Source of ART: District health officers)		

Page 1 of 4

**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.

The image shows two forms for STD/HIV testing, one for population type and one for services, with handwritten data and signatures.

**Form 1 (Left):** Clinic Copy (To be completed by the Peer educator) N 0863. Clinic/සායනය: NSACP. Client No/සාමාජික අංකය: NF CO 28 B 02 21. (To be completed by the Doctor at STI Clinic) 3. Population Type: FSW  MSM  BB  DU  Other . Clinic No: F/348/18. Services: STI Screening: Yes  No ; HIV Counselling: Yes  No ; HIV Testing: Yes  No . HIV Test Type: Routine  Rapid . Result of the HIV test: Given to the Client/Patient YES  NO . Signature: [Signature], Date: 18/03/27. GFATM - Sri Lanka HIV Program NFM.

**Form 2 (Right):** Clinic Copy (To be completed by the Peer educator) N 10873. Clinic/සායනය: NSACP. Client No/සාමාජික අංකය: NF CO 28 B 02 21. (To be completed by the Doctor at STI Clinic) 3. Population Type: FSW  MSM  BB  DU  Other . Clinic No: F/348/18. Services: STI Screening: Yes  No ; HIV Counselling: Yes  No ; HIV Testing: Yes  No . HIV Test Type: Routine  Rapid . Result of the HIV test: Given to the Client/Patient YES  NO . Signature: [Signature], Date: 06/04/2018. GFATM - Sri Lanka HIV Program NFM.

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 program personnel & 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.

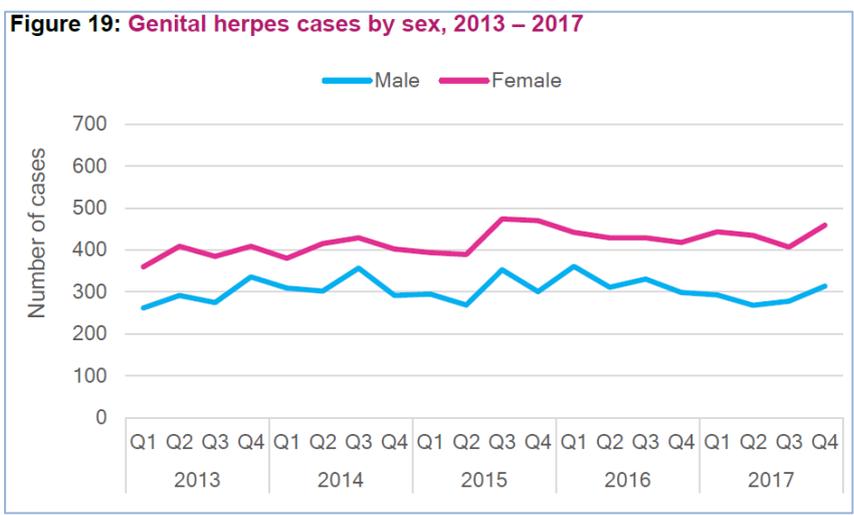
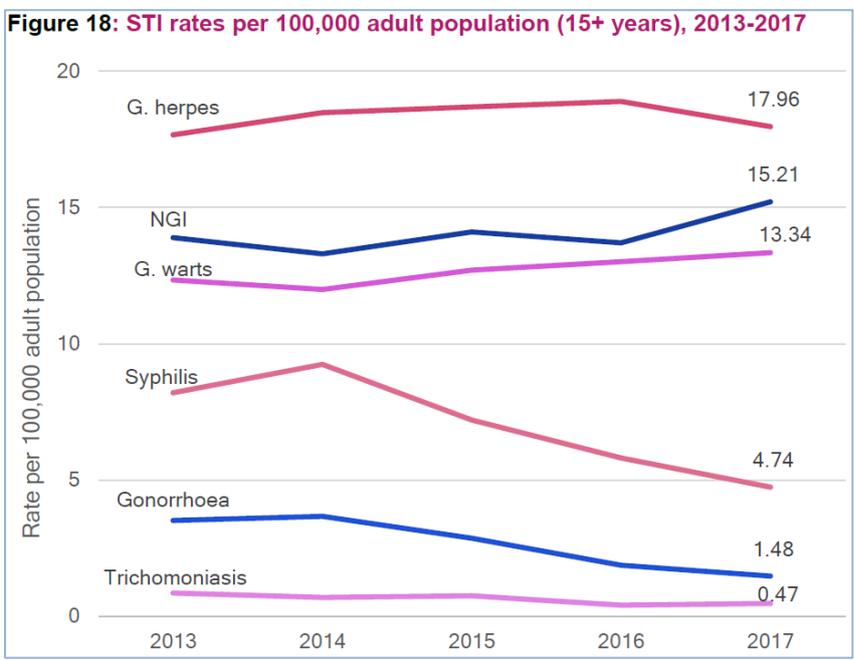
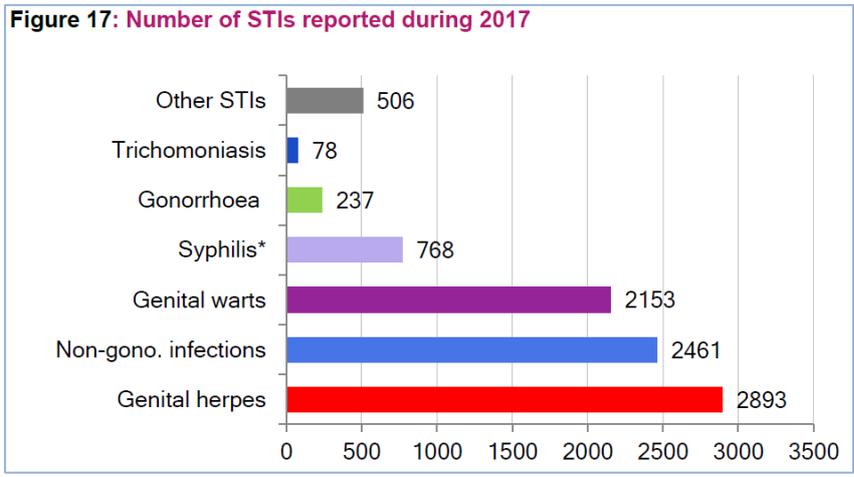
2. Unique strength of STI program in Sri Lanka is the availability of data on etiological diagnosis of STI. This data is available for several years and provides rich insights into trends of STD and contribute to STD epidemic surveillance.
3. Comprehensive, Standardised Quarterly returns submitted by 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
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

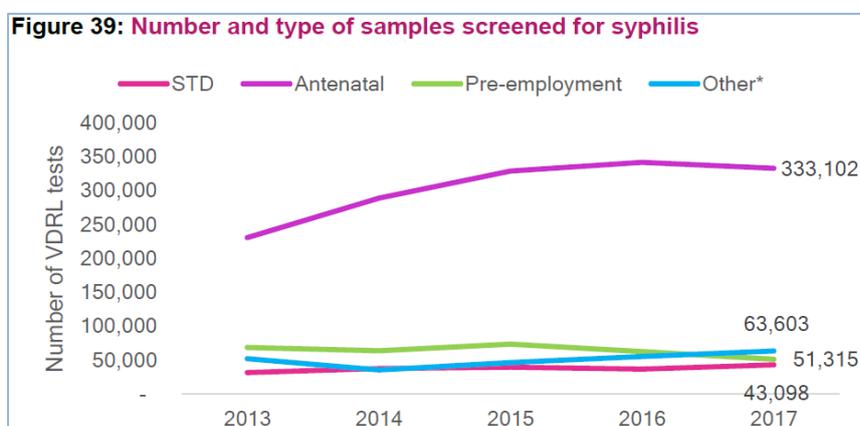
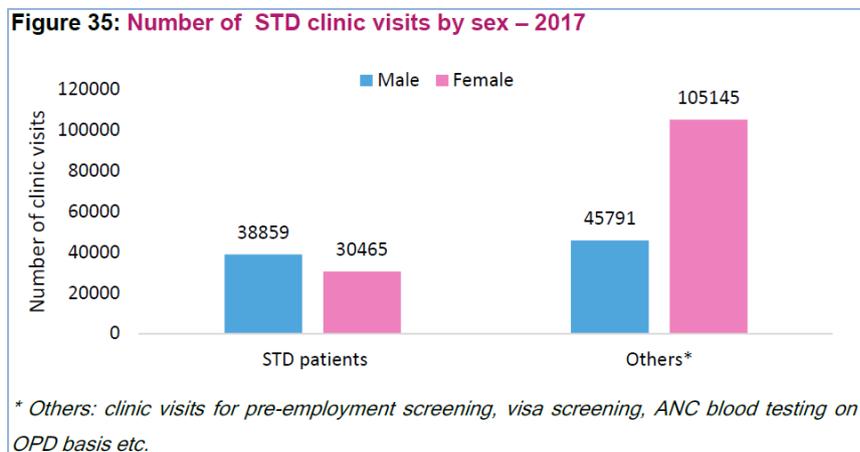
Some of the STD Surveillance outputs presented in NSACP Annual Report 2017 are reproduced below:



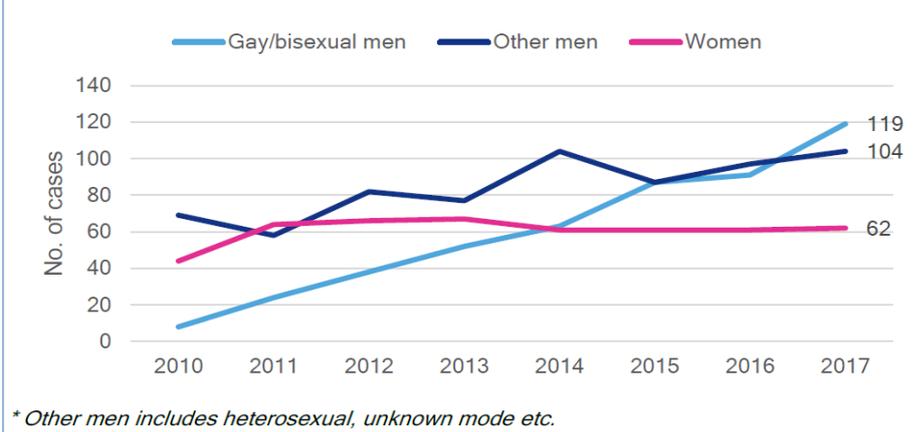
STD program monitoring data reported through quarterly returns provides a snapshot of the entire STI & HIV testing program and linkages. All this data is analysed and presented in the annual report every year. Some of the key program monitoring indicators that are generated as outcomes from the STD program 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 12: Trends of annually reported HIV diagnoses, 2010-2017**



### 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 everyday 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 and 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 the system is high. Replicability in newer centres or in other countries is high due to the 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 the 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
<b>Context</b>	Relevance	High
<b>Process</b>	Community Participation	Not Applicable
	Stakeholder Collaboration	Moderate
	Ethical Soundness	High
	Replicability	High
<b>Outcomes</b>	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

## 2.2. HIV Case Tracking and Management System under NSACP - Gearing up for End of AIDS

### EXECUTIVE SUMMARY

**Background:** One of the key strengths of National STD/AIDS Control Programme is the strong HIV case tracking mechanism where every HIV screening site is linked to the National Reference Laboratory & Epi unit of NSACP. The systematic documentation and exchange of paper-based reports between these various centres ensures tracking of almost every HIV positive case and linking them with HIV care and treatment.

**Objectives:** To ensure that every HIV positive case detected in the country is linked to program, for effective patient care as well as better epidemic control

**Implementation Highlights:** ANC clinics, TB clinics, hospitals & NGOs working with key population refer persons to STD clinics for HIV screening. All the HIV screening sites (STD Clinics/ Blood Banks/ NGOs/ Private Labs) fill case reporting form (Form 1214) for all HIV+ cases and send them to NRL for confirmation. Centralised confirmatory testing at NRL for all HIV+ cases is the unique strength of NSACP. All confirmed positive cases at NRL are shared with Epidemiology Unit at NSACP for case tracking & linking with HIV care. Duplication of cases is avoided by scrutinising multiple variables & triangulation of data from the screening sites. Epi Unit contacts the HIV+ person and links him/her with relevant HIV clinic. HIV clinics maintain robust clinical records for both out-patient & in-patient cases.

**Conclusion & Lessons Learnt:** Switching from paper-based tracking to electronic system ensures plugging of all possible linkage losses, strengthens the case tracking system and evolves it into a complete HIV case-based surveillance that is critical for End of AIDS in Sri Lanka.

### BACKGROUND AND RATIONALE

A robust HIV case reporting system can fulfil the requirements of patient care, program planning & management as well as epidemic monitoring. HIV case reporting in Sri Lanka has improved significantly since 2011 with better reporting from STD clinics, private hospitals/labs and blood banks, that are the three primary sources of HIV screening in Sri Lanka. All confirmatory tests for HIV are done ONLY at National Reference Laboratory, NSACP and samples screened HIV positive from all sources are sent to NRL for confirmation. This is a unique strength of Sri Lanka's program where all HIV positive cases are confirmed from a single point, making it enormously efficient to identify and track the positive cases for follow up.

Entire HIV case reporting is monitored and cases tracked by the Epidemiology (Epi) unit of NSACP, that coordinates very well with the reporting centres and NRL. Thus, it is important to

document how Sri Lanka is ensuring that every HIV case is tracked and linked to care and treatment. This is likely to be one of the contributing factors for the sustained low prevalence of HIV in Sri Lanka.

## OBJECTIVES

The system of HIV screening, confirmation and linking to care has been developed under NSACP with the following objectives.

1. To ensure that all the HIV screening sites are linked to the national program and all HIV positive cases come into the ambit of the program
2. To ensure uniform standards and protocols of laboratory testing for HIV confirmation of all cases in the country, in view of the stigma and sensitivity associated with it
3. To ensure that linking of HIV positive cases to care and treatment is universal in view of effective clinical management and welfare of the patient, as well as for better epidemic control

## EVOLUTION

The ELISA test for the detection of HIV antibodies and confirmation of HIV ELISA positives by the Western Blot test were introduced under NSACP during 1988 at the central laboratory. Over 34,000 persons were tested for HIV through sero-surveys during 1988 and five were found to be positive. In 1989, Serodia and HIV-Check were introduced for HIV detection at the Central lab, while ELISA testing for HIV was expanded to Jaffna and Galle. Screening of all central blood bank donors for HIV was established in 1989. The first case of HIV-2 was also detected during the same year.

The Reference Laboratory of NSACP extended its services to provide viral load assay and CD4 count assay for people living with HIV since 2012. The new viral load assay (Real time PCR) method has been introduced during the year 2012 which can be considered an important event in the laboratory molecular test development. Early diagnosis of babies born to HIV infected mothers by DNA PCR was also added to the routine diagnostic services during year 2012.

With the strengthening of the NRL with more advanced testing algorithms, HIV screening has been more and more decentralised to all the STD clinics in the country. Gradually, HIV screening was started in private sector mainly at large hospitals and diagnostic networks, mostly located in Colombo. Community-based testing of HIV at NGO drop-in-centres for key population has been introduced only a few years ago to promote uptake of HIV testing services by them.

With all STD clinics offering HIV testing services, they became the central point of referral for all other health units, especially the ANC clinics, TB clinics, general hospitals and key population

NGOs. Strong referral linkages were developed within MOH areas between these health units and STD clinics for HIV testing of their respective beneficiary segments.

## DETAILS OF IMPLEMENTATION

The **key implementation steps** in the process of HIV case reporting are presented below:

1. HIV screening in Sri Lanka is done at three settings – STD clinics, Blood Banks and Private hospitals & labs. TB clinics, ANC clinics, general hospitals and KP NGOs refer persons to STD clinics for HIV screening.
2. All the screening sites send the positive samples to NRL for confirmation, along with a request slip and Strategic Information Form (Form 1214).
3. New case reporting format (revised 1214 form) has been introduced in 2017 and is being widely used by all the reporting centres. This form is filled and sent to NRL/ Epi Unit along with the blood sample when it is sent for confirmation, except from blood banks. This form captures the demographic and epidemiological information required for surveillance purposes. The data from this form is entered into computer database at the Epi Unit, NSACP for further analysis.
4. In case of blood banks, the following steps are followed:

### **Blood Bank HIV Case Follow Up Mechanism**

HIV Screening – 1<sup>st</sup> Test (EIA/EIC) at BB →

Repeat test at BB (EIA/EIC) →

Sample sent to NSACP STD Clinic/NRL →

Western Blot confirmatory testing at NRL →

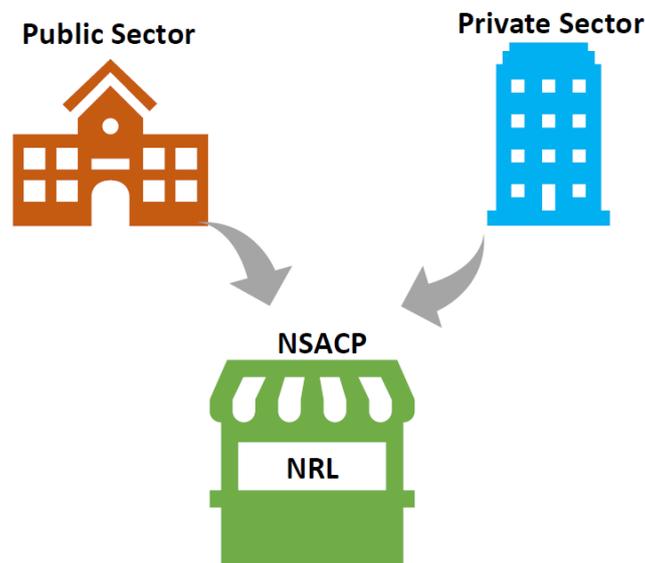
If confirmed positive, the blood donor is escorted by BB PHI to NSACP STD Clinic/ NRL  
→

Form 1214 is filled at NSACP STD clinic & forwarded to Epi unit →

Fresh sample taken & WB repeat testing done at NRL →

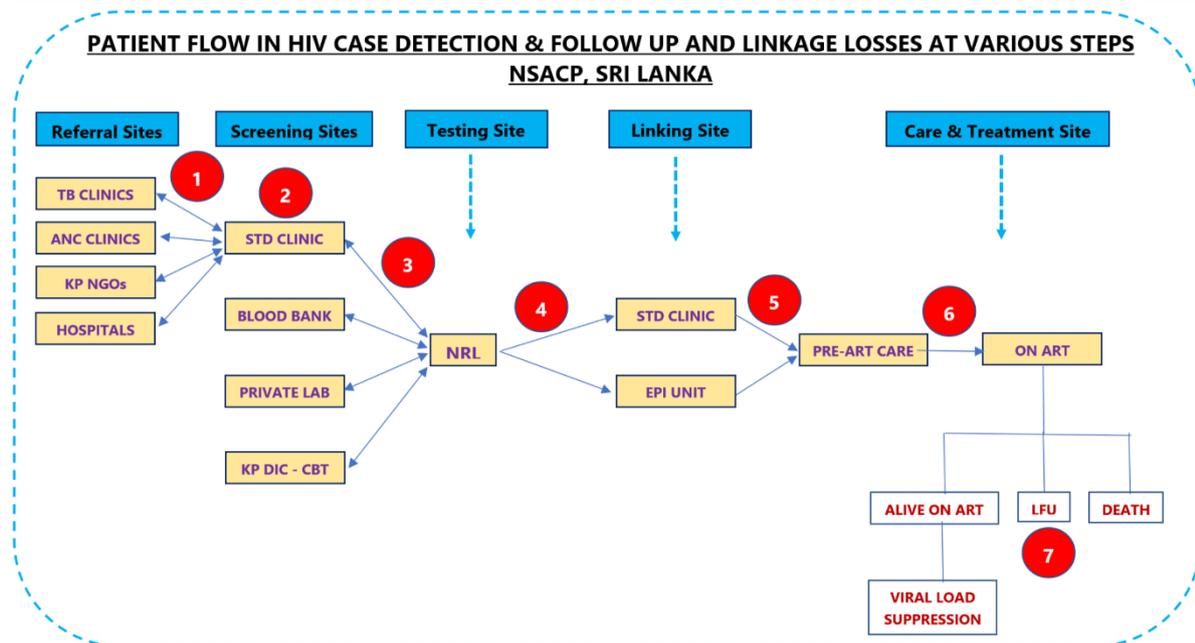
Linked to care & treatment at appropriate HIV clinic

5. Major private labs send monthly lab reports on HIV positives directly to Epi unit, which is used by Epi unit for cross verification and triangulation of information.



6. After the testing at NRL, the test results or request for additional sample, if required, is sent back from NRL to the respective screening site. In some cases, the individual would also be requested to visit the NRL for fresh sample collection.
7. The list of confirmed positive cases is sent from NRL to Epi Unit every month.
8. As soon as the Epi Unit receives the information on a HIV positive case, it immediately reviews the case reporting format, identifies the reporting centre that reported the case, enquires for any missing information and contacts the HIV positive person for further follow up.
9. Serious efforts are made to not lose the HIV positive person and to link him with care and treatment services. Public Health Inspectors attached to the STD clinics undertake home visits to the homes of the positive persons, if they are not reachable over phone.
10. A lot of efforts are put in de-duplication of cases based on multiple variables, triangulation of data from the reporting centres and to match the aggregate reporting from the reporting centres with the number of individual cases reported.
11. Once linked to the ART centre, they are followed up at the ART centre/ HIV clinics.
12. Epi Unit publishes the case reporting data every quarter in the form of a one-page update. Aggregate numbers of HIV testing are reported every year in the NSACP annual report. More detailed analysis of case reporting data is shared with other NSACP officers, STD clinics and those who request for the data once in six months.

The data flow of HIV positive cases from screening to linking to care is presented in the flow chart below (Source: Report of External Review of NSACP, 2017).



**Key stakeholders involved:** At the STD clinics, besides the lab technicians maintaining the lab records and registers, the nursing staff and public health inspector are the key personnel involved in documentation and reporting of the HIV testing results. Staff at NRL and the Epi unit of NSACP are the key personnel involved in HIV case tracking.

**Personal & Data confidentiality:** During the counselling of patients for HIV testing, the process of testing and reporting of results is explained along with details of confidentiality. Contact numbers and addresses of the clients are collected while ensuring complete confidentiality of information. These details are used only in case of any need to contact the person in view of positive screening results or need for additional sample. Most of the referral communication between various centres uses only the case ID or file number of the patient without any reference to name.

**Community Participation:** Being an SI initiative, there is no direct participation of the beneficiaries and communities in the data management system related to HIV case tracking. However, as noted above, community participation is ensured in the delivery of HIV testing 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:** While specific training related to HIV case tracking and coordination of referral linkages between various facilities is limited, STD clinic staff are given orientation whenever needed, through review meetings, field visits, etc. 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 HIV case reporting 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 data from the HIV case reporting forms is analysed by Epi unit. Quarterly Epidemic Update brought out by the epi unit presents the number of HIV cases reported quarter-wise and cumulatively. Data on linkages and cascade monitoring is presented in NSACP Annual Report every year. Besides, any other special analysis carried out on the data is shared internally with program managers.

## KEY HIGHLIGHTS AND CONTRIBUTION TO THE PROGRAM

1. Strong linkages of the NSACP with all HIV testing sites including STD clinics, private labs and the blood banks through National Blood Transfusion Services directorate is the most unique aspect of Sri Lanka's HIV testing program. This ensured that information on each and every test of HIV done at these centres is reported to the national program both in aggregates and at individual level for the screened positive cases.
2. Centralised confirmatory testing for HIV at NRL has been in place since the beginning of HIV testing in Sri Lanka. Though screening sites have been expanded in public and private sector in the later years, confirmation through Western Blot was restricted to NRL. This ensured that all HIV positive cases are in the knowledge of the program and positive diagnosis is declared only after testing at NRL. This also ensured that uniform testing protocols and standards are used in diagnosis of HIV positive cases.
3. Almost universal case tracking & linking by Epi Unit: Since NRL and Epidemiology Unit of NSACP are housed in the same building, close linkages have been established between the two units. NRL shares the list of confirmed positive cases with the Epi unit of NSACP which then contacts the person directly or through the screening site from where the sample was sent. In case Epi unit fails to reach out to the person, the PHIs from the concerned STD clinic conducts physical outreach. Except a few instances, all the PLHIV are connected and linked to their nearest STD/HIV clinic for further counseling and evaluation. This mechanism of tracking is facilitated through paper-based reports and request slips

between the various labs and Epi unit. All the documentation is meticulously maintained at the NRL.

4. Detailed epidemiological profiling of PLHIV through standard format (Form No. 1214) is carried out at all the STD clinics and private labs. This form has been recently updated and captures all the demographic and risk behaviour information of the individual. It is a rich source of information for analysing the risk behaviour patterns in the country. This also facilitates tracking and follow up of the confirmed positive cases with the help of the contact details mentioned in the form. After testing at NRL, all the 1214 forms of the confirmed positive cases are sent to Epi unit while those of the negative cases are stored at NRL for a period of five years.
5. NSACP captures the historical data on HIV cases and their profiles at the screening sites, NRL and Epi unit that can provide rich epidemiological insights into the trends of HIV in various population groups, trends of risk behaviours and factors, etc. This information is available in the form of extensive paper-based records and registers at all these facilities under NSACP. Epi unit computerises the data from form 1214 of all confirmed positive cases and periodic analysis is conducted on this database, to yield strategic insights into the sources of new infections, where to strengthen the HIV testing for a greater yield, etc.

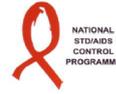
## **OUTCOMES & ANALYTIC OUTPUTS**

As mentioned above, Epi unit publishes the summary of HIV case reporting data every quarter in the form of epidemic update. The data also provides insights into male female ratios, province-wise distribution of HIV cases, probable routes of transmission of HIV, etc. that are often reported through the update and annual report. This quarterly epidemic update is of high strategic value to the program in terms of understanding the trends of new HIV diagnoses made every quarter. The following picture shows a snapshot of one of the quarterly epidemic updates.

Cascade analysis of HIV cases from a 90-90-90 approach is carried out by SIM unit based on the HIV case reporting and follow up data and presented in the NSACP Annual Report every year. Almost universal linking of HIV positive cases to the care and treatment system is a reflection of the successful implementation of the HIV case tracking mechanisms. Other detailed analysis such as death audit, epidemiological profiling, risk factor analysis, etc. are carried out by Epi unit and shared internally with the program managers.



UPDATE 2<sup>nd</sup> QUARTER 2017



**HIV/AIDS Surveillance Data in Sri Lanka**  
National STD/AIDS Control programme, Department of Health Service

HIV/AIDS ESTIMATES FOR SRI LANKA as of end 2016

- PEOPLE LIVING WITH HIV/AIDS - ADULTS and CHILDREN - 3900
- DEATHS in 2016 - 110
- ADULT PREVALENCE (>15 YEARS) - <0.1%

**REPORTED HIV/AIDS CASES**  
NATIONAL STD/AIDS CONTROL PROGRAMME 2016

Quarter	Cumulative HIV cases at the beginning of the quarter	HIV/cases reported during the quarter	Cumulative HIV cases at the end of the quarter	Cumulative HIV cases by gender		Cumulative AIDS cases at the end of the quarter	Cumulative AIDS cases by gender		Reported AIDS deaths
				M	F		M	F	
1 <sup>st</sup> Quarter	2308	66	2374	1504	870	613	422	191	9
2 <sup>nd</sup> Quarter	2374	58	2432	1545	887	632	437	195	14
3 <sup>rd</sup> Quarter	2432	67	2499	1596	903	648	450	198	11
4 <sup>th</sup> Quarter	2499	58	2557	1640	917	656	456	200	13

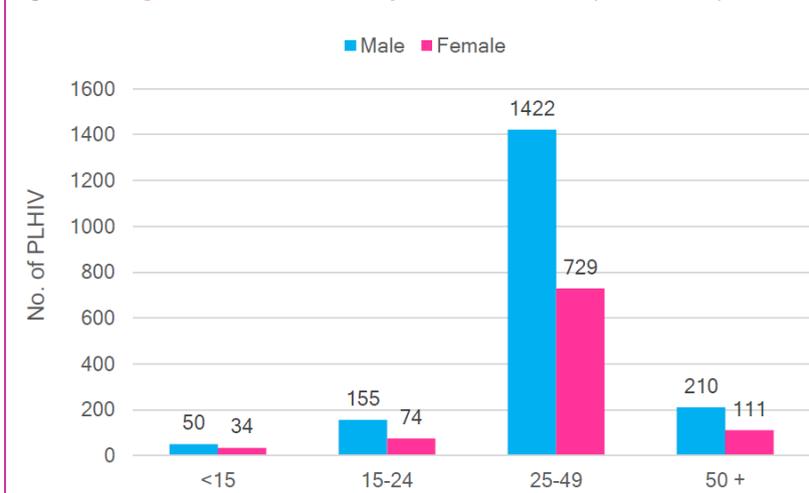
**REPORTED HIV/AIDS CASES**  
NATIONAL STD/AIDS CONTROL PROGRAMME 2017

Quarter	Cumulative HIV cases at the beginning of the quarter	HIV/cases reported during the quarter	Cumulative HIV cases at the end of the quarter	Cumulative HIV cases by gender		Cumulative AIDS cases at the end of the quarter	Cumulative AIDS cases by gender		Reported AIDS deaths
				M	F		M	F	
1 <sup>st</sup> Quarter	2557	73	2630	1696	934	664	462	202	07
2 <sup>nd</sup> Quarter	2630	58	2688	1741	947	677	472	205	11
3 <sup>rd</sup> Quarter									
4 <sup>th</sup> Quarter									

- Male to female ratio of reported HIV cases - 1.8 :1
- Cumulative AIDS deaths reported - AIDS related - 431
- Cumulative AIDS deaths reported -non AIDS related -05
- Cumulative vertically transmitted HIV cases reported - 81
- Cumulative foreign HIV cases reported - 117
- Number of HIV tests carried out during 2016 - 1129246
- HIV Sero-positivity rate for 2016 - 0.02 %

Epidemiologist  
National STD/AIDS Control Programme  
Department of Health Services,  
No. 29, De Saram Place, Colombo 10, Sri Lanka.  
Tel: 011-2667163 Fax: 011-5336873 Web site: [www.aidscontrol.gov.lk](http://www.aidscontrol.gov.lk)  
2017-07-14

**Figure 13: Age and sex of PLHIV reported, 1987-2017 (Total=2784)**



## STAKEHOLDER PERSPECTIVES & EXPERIENCES ON THE BEST PRACTICE

Epi unit headed by the Consultant Epidemiologist, NSACP is the nodal unit coordinating the entire HIV case reporting and tracking efforts under NSACP. The Epidemiologist and her team puts a lot of efforts in counseling and mobilising HIV positive cases to reach a HIV clinic for further follow up. *“It is the trust that PLHIV repose on the program that enables us to provide the services and link them with care and treatment. The role of consultant venereologists and STD clinic staff in counseling and gaining trust of the patients is very critical,”* said the Epidemiologist at NSACP.

*“We personally know each and every PLHIV by their name and background information. We build a personal rapport with the patient by providing the right advice and care, at the same time maintaining utmost confidentiality,”* says a consultant venereologist at one of the HIV clinics. *“We closely follow up with the HIV positive cases keeping in mind the dynamics in their families and residential areas. We never become the reason for breach of confidentiality of any PLHIV at the place they live. That’s why they share their personal contact numbers and addresses with us,”* opined a public health inspector who is tasked with the job of LFU tracking.

Paper-based tracking and communication between various centres is smooth and systematic. However, it leaves a scope for missing of cases during these linkages. Further, paper-based system adds to the time delay between different stages of HIV case tracking. An electronic data management system linking all the key facilities in HIV case tracking will be a great addition in improving the quality and completeness of HIV case reporting and tracking.

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

Almost universal linking of HIV positive cases to care and treatment system is a reflection of the successful implementation of the HIV case reporting and tracking system under NSACP. Though there are occasional instances of linkage losses at various stages of the HIV case tracking system, the system is in place to minimise them. Some **key contributory factors** that have led to the making of HIV case tracking system into a SI best practice are as follows.

1. Centralised HIV testing at NRL
2. Deep commitment on the part of all service providers at screening sites (STD clinics, blood banks, private labs) to ensure that every HIV positive case is linked to the program
3. Stable leadership and coordination from Epi unit of NSACP with all the peripheral screening sites and NRL

Certain **limitations of the current HIV case tracking system** include:

1. Paper-based system: With the upcoming Electronic Information Management System (EIMS) that captures individual level information, most of the issues of inter-facility documentation and communication may be resolved.
2. Lack of written SOPs for recording, reporting, follow-up, case tracking, review of linkage losses and actions to locate the lost-to-follow ups.
3. Limited computerisation and epidemiological analysis of case data. If all the historical records available with NSACP can be computerised, it will generate a potential database for rich epidemiological analysis and strategic planning.

**Areas where further improvements** can be brought into the HIV case reporting system are as follows:

1. Case tracking & data management may be shifted from paper-based to an integrated electronic system with automated alerts for cases lost to follow up.
2. Coordination mechanisms may be developed between the facilities to tease out the missing cases from time to time.
3. Standard operating procedures may be developed and facility staff may be trained on the same to ensure fool-proof reporting.
4. More in-depth epidemiological analysis of the HIV case tracking data may be taken up for programmatic and epidemic purposes

## CONCLUSION

The unique arrangement of HIV screening and confirmation, the cohesive and strong documentation and record keeping, and the exclusive pivotal role of the Epi unit in case tracking and linking make the HIV case tracking system of Sri Lanka a best practice in strategic information with a very high success rate in terms of linking confirmed HIV positives to care and treatment. Switching from paper-based tracking to electronic system ensures plugging of all possible linkage losses, strengthens the case tracking system and evolves it into a complete HIV case-based surveillance that is critical for End of AIDS in Sri Lanka.

**The Qualitative Best Practice Scorecard** applied to the HIV case tracking and reporting system is presented below. HIV case tracking and reporting system plays a central pivotal role in NSACP in ensuring that all PLHIV are linked to care. This is a critical function both for effective patient care and epidemic control in the country. This could be one of the factors for the sustained low HIV prevalence in Sri Lanka. Community participation is not applicable directly to SI system, it is more relevant in the context of delivery of HIV testing services. There is scope to improve the stakeholder coordination between various sites in the case tracking system to minimise linkage losses, hence rated moderate.

Data confidentiality in the system is high. Replicability in newer centres is dependent upon the quality of staff and is rated moderate, as specific SOPs and training in this area for facility staff is wanting. Being a paper-based system, the amount of time and efforts of the clinic staff in

documentation and reporting is disproportionately high for the 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 HIV case reporting and linking them to care. Unless the system is shifted to electronic version, sustainability is moderate since it involves a wide range of stakeholders dealing with increasing case loads at all their respective health units.

### Qualitative Best Practice Scorecard

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

### KEY HIGHLIGHTS OF THE BEST PRACTICE

- **Strong linkages with all testing sites**
- **Centralised confirmatory testing for HIV at NRL**
- **Almost universal case tracking & linking by Epi Unit**
- **Detailed epi profiling through standard format**
- **Historical data to provide rich epi insights**

## 2.3. Data Archiving and Dissemination Practices under NSACP - A Model for the South East Asia

### EXECUTIVE SUMMARY

**Background:** One of the key strengths of National STD/AIDS Control Programme is the strong data archiving, sharing and dissemination practices through a creative, organised & regularly updated website, comprehensive annual report & regular program publications.

**Objectives:** To systematically analyse, disseminate updated programmatic data to a wider audience at regular intervals and to archive all the past information in an easy-to-access manner

**Implementation Highlights:** Strategic Information Management unit of NSACP is responsible for the dissemination of program data through website and annual reports. The program data is disseminated through a dynamic, well-designed, constantly updated website that is one of the best in the region, and a highly analytical comprehensive annual report, besides publications from time to time. NSACP captures & shares the longest historical data/information related to STD/HIV/AIDS in the region on its website making it the most resourceful online repository. Data is regularly shared with NSACP program managers for timely programmatic decision making, as well as with GFATM, WHO, UNAIDS for international reporting.

**Conclusion & Lessons Learnt:** NSACP's transparency and open data policy is worth emulating by many other countries. The reach and impact of these practices can be further strengthened through comprehensive dashboard and strong social media outreach plan.

### BACKGROUND AND RATIONALE

One of the key strengths of the National STD/AIDS Control Programme of Sri Lanka is the strong data archiving, sharing and dissemination practices. All the program management data from STD/HIV clinics is received, verified and analysed by Strategic Information Management unit of NSACP on quarterly basis. The reporting process is excel-based and standardised through comprehensive quarterly returns. The analysed data is disseminated through a dynamic, well-designed, constantly updated website that is one of the best in the region, and a highly analytical comprehensive annual report, besides publications from time to time.

Epidemiological data is published through quarterly epi updates. NSACP captures & shares the longest historical data/information related to STD/HIV/AIDS in the region on its website making it the most resourceful online repository. Data is regularly shared with NSACP program managers for timely programmatic decision making, as well as with GFATM, WHO, UNAIDS for international reporting. Thus, it is important to document these practices as one of the best practices under SI.

## OBJECTIVES

The data dissemination and archiving practices have been developed by SIM unit of NSACP with the following objectives.

1. To systematically analyse and disseminate updated programmatic data related to service delivery, case tracking, HIV estimations, behavioural and other surveys, guidelines and policies, etc. to wider audience at regular intervals
2. To systematically archive all the old publications, reports, analysis and data through the website of NSACP that acts as an easy-to-access, one-stop-shop resource centre for all information on HIV/AIDS
3. To constantly update and provide the latest perspective on the program to general public, academia and program personnel

## EVOLUTION

The current trilingual website of NSACP was developed and launched in 2013. The oldest annual report of STD control program available on NSACP website dates back to 1969. Scan copy of the type-written report is titled 'Administration Report of the Anti VD Campaign, Ceylon, 1969/70'. The report gives a detailed narrative of the problem of STDs at that time, organisation of anti-VD services, preventive and curative activities, laboratory work, surveys and international assistance available for the program. Starting from there, NSACP website provides annual reports/ administration reports of anti-VD campaign at periodic intervals and subsequently annual reports of NSACP for all the recent years. Serious efforts have been made to scan all the old reports and documents and make them available as electronic versions on the website. Similarly, various publications, reports, guidelines and policies relevant to the current program from earlier times have been made available through the website. Any new publication related to the program is immediately hosted on the website for easy access to one and all.

## DETAILS OF IMPLEMENTATION

Website of NSACP is the chief repository of information as well as the primary mechanism of dissemination of information on HIV/AIDS. Some of the key features of NSACP Website that make it a best practice are summarised below:

- Comprehensive, one-stop shop for all information related to STD/HIV/AIDS
- Clean and aesthetic design without any clutter
- Enhanced appeal with pictorial and colourful depiction
- Regularly updated with latest information
- Shares the historical data in a systematic manner
- Evolved systems for Updating the data, publications, Video films, Power point presentations, IEC materials etc
- Downloading Options for Publications, Presentations, IEC materials, Photos etc.
- Incorporated the provision for posting requests and sharing feedback

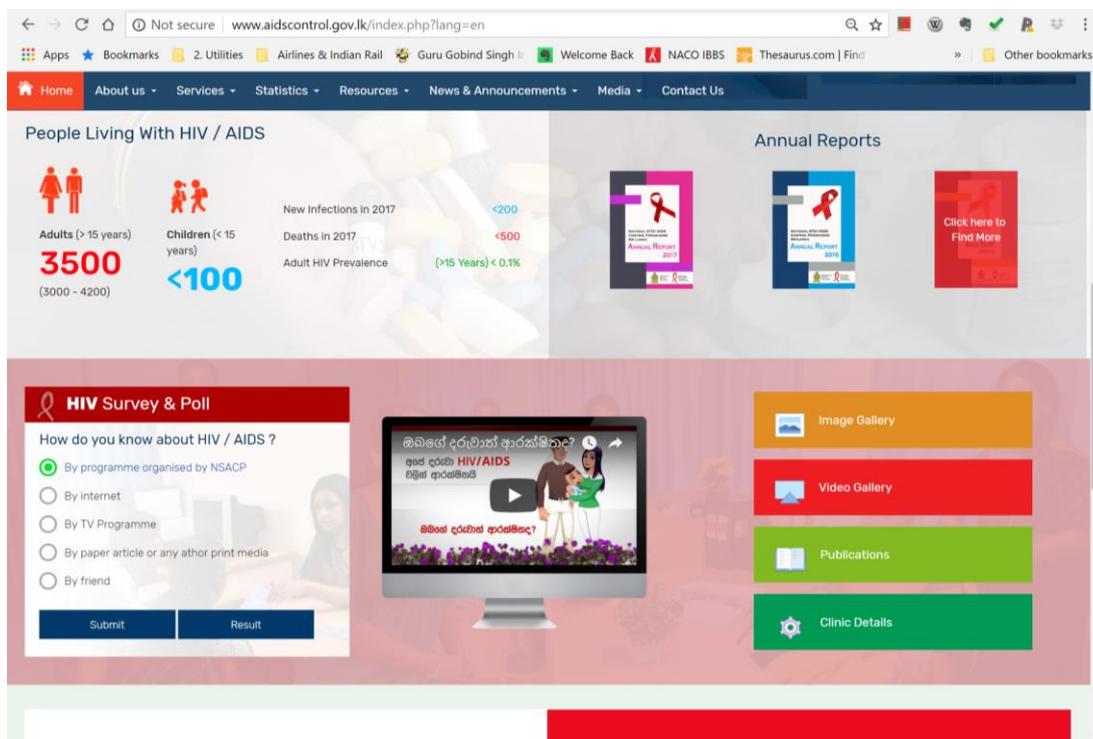
SIMU is equipped with experienced team in managing the website. Basic technical maintenance is done by a vendor while content management is done by an IT officer posted in SIMU. Currently, the system is using Joomla as the content management system. All the content to be uploaded and updated on the website are scrutinised by the SIMU. With the help of the website maintenance agency, the new information is presented in an attractive and useful manner.



#### Welcome to the National STD/AIDS Control Programme

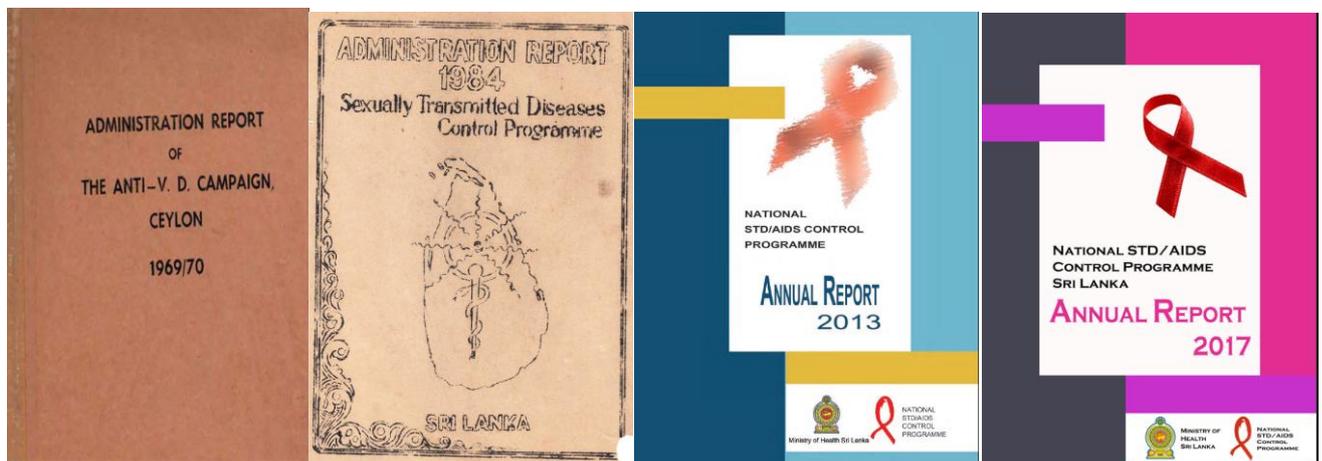
The National STD/AIDS Control Programme (NSACP), Ministry of Health, spearheads the national response to HIV/AIDS in Sri Lanka. NSACP is the focal point for planning and implementation of HIV/AIDS National Strategic Plan and AIDS Policy together with all stakeholders. The headquarters of the NSACP is situated at 29, De Saram Place Colombo 10, Sri Lanka and it networks with 33 full-time STD clinics and 23 branch STD clinics (as of end 2017).

[More Details](#)



Comprehensive and in-depth analysis presented in the annual reports is the second most important data dissemination mechanism adopted by NSACP. Preparation of NSACP Annual Report is completely done by the SIM unit based on detailed analysis of the program data. The report is structured in a way to present every small aspect of the program, capturing the latest available data. An elaborate data verification and quality checks exercise is done before using the data for annual report. Wherever clarifications or corrections are required, they are referred back to the respective peripheral clinic and revised data is updated.

Key data is presented extensively in the form of tables, graphs and maps. This extensive analysis and user-friendly presentation of the data upto the district level is what brings very high value to the annual report. The report is also enriched with several photos showcasing the activities taken up by the program in the previous one year. The annual report also provides the contact details of all the STD clinics in the country for the benefit of general public. Annual reports of several previous years are archived and are made available on the website for wider use.



**Capacity building initiatives:** While basic orientation is provided to STD/HIV clinic staff on analysis and dissemination of data during the review meetings and supervisory visits, there is an identified need for strong capacity building of the peripheral staff in data analysis, presentation, review and dissemination among the staff as well as to the beneficiaries.

**Stakeholder collaboration:** Data archiving and dissemination is a centralised function. However, there can be a greater engagement of peripheral STD clinic staff as well as communities at large in the process of development of knowledge products as well as in their dissemination. There is further scope for improvement in the methods of dissemination of annual analysed data, as a reflection of what was achieved in the program and what is required to be done. This sort of reflection involving all the program personnel every year or quarter will go a long way in empowering them, making them take greater ownership and be more accountable to the goals of the program.

**Community participation:** Direct participation of end beneficiaries in data archiving and dissemination practices is limited. Specific dissemination programs presenting and sharing the program data to the communities of key population, PLHIV, etc. may be introduced and strengthened as a strong mechanism of enhancing community participation and ownership towards the program.

**Ethical Soundness:** Commitment to protection of privacy, confidentiality and rights of beneficiaries and communities is very high in the program and in all its data dissemination practices. Personal details of the patients or beneficiaries are completely hidden from any form of communication of program data. On the other hand, the website is an empowerment tool for the communities where they can solve their queries, undertake their self risk-assessment and contact any person in the program for seeking guidance.

**Institutional support mechanisms:** The entire system of website maintenance, development and release of annual report and other publications is managed by the SIM unit of NSACP. The system is thoroughly institutionalised within the program. External institutional support is sometimes solicited for carrying out advanced analysis or in development of certain technical reports. National and international donor support from CDC, WHO, UNAIDS, Global Fund, etc. in the form of technical consultant support is in-sourced for such tasks.

**Costing & funding arrangements:** The Strategic Information Management component of NSACP is fully funded by the Government of Sri Lanka, including the maintenance of website and publication of annual report. The Global Fund has supported one of the recent rounds of updating and enhancement of website. VHS-CDC Project also aims to support NSACP in further enhancing the website. SIM unit mobilises the support of international donors from time to time to carry out specific advanced analysis as well as for the publication and dissemination of annual report. It is a very cost-effective intervention as the primary investment is in the form of time of personnel involved.

## KEY HIGHLIGHTS AND CONTRIBUTION TO THE PROGRAM

1. Regular, systematic, standardised mechanisms for data dissemination and archiving are in place under NSACP, that are rigorously followed and implemented, with constant innovation and updation from time to time.
2. NSACP captures & shares the longest historical data in the region, be it on overall service delivery in the form of annual reports, or epidemiological data through cumulative data tables or HIV surveillance data from the earliest data generation efforts over two decades ago. This provides a rich legacy to the entire program and all the new staff inducted into the program and are currently working take pride in the fact that they are working in a program that has great historical legacy.
3. Dynamic, well-designed, constantly updated website is the hallmark of the program that showcases the historical data in neatly organised archives on one side and the most updated program and epidemic information on the other.

4. Comprehensive Annual Report with in-depth analysis, graphical presentation of trends, detailed portrayal of service delivery and epidemic statistics along with vivid sharing of programmatic activities is the significant feature of NSACPs recent annual reports. This has received wider appreciation from various international experts visiting the country as well.

## STAKEHOLDER PERSPECTIVES & EXPERIENCES ON THE BEST PRACTICE

As noted above, the program personnel working at NSACP take pride in the fact that they work in a program that has a rich historical legacy, standardised and delivering well on the stated targets. This perspective is created among the program managers not only by their training and the organisation culture, but also through the strong data and information sharing mechanisms in place under NSACP.

*"We can obtain any guideline, format, training material, etc. on our website. We don't need to write to NSACP to send documents from time to time",* remarked a consultant venereologist working at a peripheral STD clinic. *"The richness of our program lies in its strong foundations. Without understanding the roots and evolution of the program, no one can contribute positively to it. Our website provides a good insight into the legacy of our program,"* said the medical officer working at NSACP.

Director, NSACP shared her pleasure in quoting that, *"Many international experts who visited us recently as a part of GFATM or WHO/UNAIDS or CDC delegations have been appreciating our website and our annual report. We feel proud of them and they need to be made better."* *"We make every possible effort to make our website the best and the most updated all the time. We are always open to newer ideas. Similarly, annual report is not just a formal program document, but a lens into the workings of the program for larger public and technical audience. So, we give utmost seriousness to making them error-free, insightful and readable,"* remarked the Coordinator, SIM unit that is responsible for both, website maintenance and annual reports, under NSACP.

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

Some of the **key contributory factors** that led to the institutionalisation of the best data dissemination practices under NSACP are as follows.

1. Deep rooted culture of systematic documentation of program data right from the historic times
2. Strong evidence-based approach of the program that requires data to be analysed, presented and shared widely at regular intervals
3. A keen and passionate SIM unit that has a high level of commitment to this function of data dissemination
4. Stable and long-standing leadership at SIM unit of NSACP with a vision for gradual development and betterment of data dissemination practices

5. Greater use of both website and annual report by a wide range of stakeholders, within and outside the program

Some **areas where further improvements** can be brought in with respect to data dissemination practices under NSACP are as follows.

1. Besides the website, formal dissemination meetings may be conducted from time to time for the program personnel up to the peripheral facility level as well as for the communities. This will further enhance collaboration and ownership.
2. Peripheral clinic staff may be provided capacity building in data analysis and dissemination practices.
3. The reach and impact of the website may be enhanced through strategic social media outreach plan.
4. Discussion on specific topics may be added to the website, aimed at scientific community as well as KP/PLHIV communities to enhance their engagement with the program
5. Website is an area of creative development and as such, has always scope for further refinements and improvements. Some of the suggested ideas in which website can be improved further are as below:
  - Specific boxes on the homepage for target audience with a ready list of links to relevant pages of website in one place – General Public; Students; Researchers; Program managers; Doctors; Key Population; STD clinic attendees; Pregnant women; PLHIV; etc.
  - Integration with social media channels backed by a strong Social Media Outreach plan
  - Latest presentations and publications highlighted on the homepage
  - Link to the dashboard data visualisations, with restricted access to various levels of program personnel
  - Enhance geo-specific information on services, data and feedback

## CONCLUSION

NSACP's transparency and open data policy, the importance given to the element of data sharing, seriousness and meticulous care given to minor details to ensure readers' or audience appeal and ease make the data archiving and dissemination practices under NSACP, a best practice in Strategic information. The highlights of the website and annual reports are worth emulating by many other countries. The reach and impact of these practices can be further strengthened through comprehensive dashboard and strong social media outreach plan.

**The Qualitative Best Practice Scorecard** applied to the data archiving and dissemination practices under NSACP is presented below. The area is of high relevance to the program and gives the required visibility to the programmatic efforts and knowledge. Community participation in data dissemination efforts is low. There is scope to improve the stakeholder collaboration in data analysis and sharing, hence rated moderate. Data confidentiality and ethical soundness in the system is high. Replicability in other programs and countries is high

as NSACP sets an example in this area. Compared to the value the website and annual report bring to the entire program showcasing it in the best light to the wider audience, the amount of time and efforts spent by the SIM unit can be considered efficient. Effectiveness is high since the system appropriately serves its intended purpose of ensuring wider access to data and information from the program in a user-friendly manner. Sustainability is not an issue in view of the committed resources available both from the government as well as international partner/ donor agencies for this area of data analysis and dissemination.

### Qualitative Best Practice Scorecard

Category	Criteria	Rating
<b>Context</b>	Relevance	High
<b>Process</b>	Community Participation	Low
	Stakeholder Collaboration	Moderate
	Ethical Soundness	High
	Replicability	High
<b>Outcomes</b>	Efficiency	High
	Effectiveness	High
	Sustainability	High

### KEY HIGHLIGHTS OF THE BEST PRACTICE

- ▶ Regular, systematic, standardised
- ▶ Captures & shares the longest historical data in the region
- ▶ Dynamic, well-designed, constantly updated website
- ▶ Comprehensive Annual Report & Qtrly Epi Report
- ▶ Internal program dissemination

## 2.4. Cohort tracking of PLHIV on ART in Sri Lanka

### EXECUTIVE SUMMARY

**Background:** Taking advantage of the low level epidemic and a relatively smaller number of PLHIV in the country, NSACP has taken measures to ensure that every PLHIV is linked to treatment and care, and followed up closely on ART. Documentation and reporting systems have been set up to ensure longitudinal cohort tracking of PLHIV on ART.

**Objectives:** To monitor the treatment adherence and progress of PLHIV receiving ART and estimate the survival among PLHIV on ART

**Implementation Highlights:** Extensive, well-documented case files for all PLHIV is the primary source of information for cohort tracking and cascade analysis of PLHIV data. Individual level reporting in electronic form ensures computerisation of key variables required for cohort tracking. Active tracking & follow-up of LFU by PHI/Nurse ensures that treatment adherence of PLHIV is high. High level, uniform reporting from all HIV clinics ensures that the data is complete and updated. Systematic analysis & periodic dissemination of the longitudinal data ensures the utility of the data in the program.

**Conclusion & Lessons Learnt:** Ensuring individual level reporting of progress of PLHIV on ART from all HIV clinics right from the early stages of ART program is a best practice under NSACP. This system can further be strengthened through shifting to an electronic data management system.

### BACKGROUND AND RATIONALE

STD clinics form the central pillar for the HIV/AIDS response. With the advent of HIV, the functions of screening for HIV and management of confirmed HIV positive cases have been added to the STD clinics. Some of them have been upgraded into HIV clinics where Anti-Retroviral Treatment is provided. The way in which HIV/AIDS control and management is integrated into the ongoing STD control program and infrastructure is unique to Sri Lanka. HIV Screening and treatment for HIV positives are provided through same facility making it more patient friendly. Consultant Venereologists provide all the required clinical care for out-patient and in-patient HIV cases. Separate cadre of public health inspectors are available for tracking and follow up of lost-to-follow-up cases, contact tracing, etc.

With this background system for HIV care in place, SIM unit of NSACP has introduced computer-based cohort tracking of HIV positive cases receiving Anti-retroviral treatment (ART). This ensures quarterly reporting of individual level patient information from all HIV clinics to SIM unit of NSACP. This is a simple and effective means of ensuring that all HIV cases are adherent to their treatment as well as generating programmatic evidence on survival, mortality, etc. Thus, it is important to document this as a best practice under Strategic Information.

## OBJECTIVES

The excel-based cohort tracking system has been developed by SIM unit for tracking of PLHIV on ART with the following objectives.

1. To monitor the treatment adherence and progress of PLHIV receiving ART
2. To estimate the survival on ART among PLHIV at 12, 24 and 60 months for ART program monitoring
3. To take measures to minimise lost-to-follow-up and enhance treatment retention

## DETAILS OF IMPLEMENTATION

Every case of confirmed HIV positive is registered into the pre-ART register till the time clinical evaluation and laboratory assessments are completed and ART is started. Once ART is started, the details are entered into the main ART register. The register documents the basic demographic information, WHO staging, weight, CD4 count, ART regimen started, any regimen changes, death, transfer-out details, and monthly visit status of the patient. This register is regularly maintained and updated by the staff nurse at the HIV clinic for every visit of the patient.

Patient case files are maintained by the consultant venereologists with utmost care. All the clinical and risk behaviour related information besides counseling details, laboratory tests, opportunistic infections, etc. are documented in great detail for every visit of the patient. Patient case files present a complete longitudinal view of the patient's journey from detection till the current date and is an important source of information for preparation of ART quarterly returns as well as updation of cohort database.

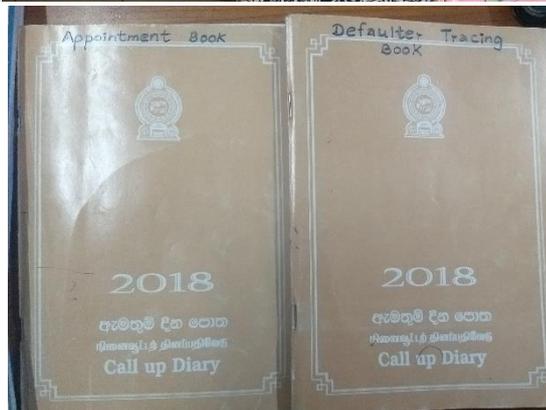
Besides the main register and patient case files, HIV clinic maintains several other registers related to the patient care as well as clinic management. One of the important registers is the LFU tracking register maintained by the PHI. PLHIV who don't visit the HIV clinic on the scheduled date are followed up by the PHI through phone, mail or physical visit to the household. All the tracing efforts are documented in the LFU tracking register.

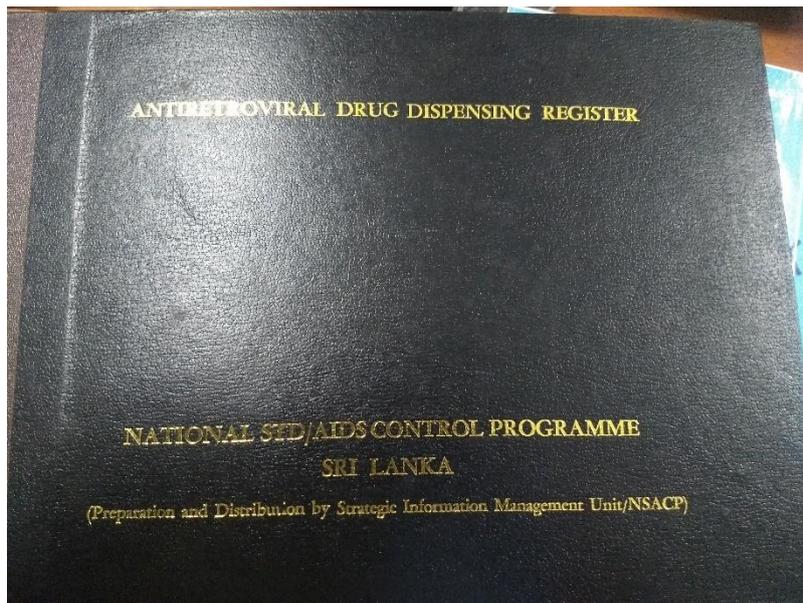
On a quarterly basis, the individual level information on the key variables in ART register along with details of viral load testing are entered into a standard Excel-based database by the staff nurse or PHI. This database is forwarded to SIM unit where it is verified and taken for further compilation and analysis. SIM unit compiles quarterly database received from all HIV clinics, undertakes quality checks, conducts analysis for treatment adherence rates, survival rates and other global indicators such as 90-90-90. The analysed data is used to fulfil the international reporting requirements as well as published in the annual report.

## Registers maintained at HIV clinics

The following registers are maintained at all the HIV clinics in the country:

1. Pre-ART Register
2. ART Register
3. Patient White Card
4. Appointment register
5. Patient case files
6. Defaulter tracing register
7. Interview & contact tracing register
8. Investigation register
9. Death register
10. Quarterly returns file
11. PMTCT register
12. Children living with HIV register
13. Register of drug resistance tests
14. Cotrimoxazole prophylaxis register
15. Register of Contraceptive methods for HIV infected women
16. HIV co-infections register
17. HIV-TB register
18. Register on non-communicable diseases & STDs among PLHIV
19. Hepatitis B vaccination register





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

**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 and treatment adherence.

**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 HIV services through strong rapport building approaches adopted by the HIV clinics and 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 ART services by them.

**Capacity building initiatives:** HIV clinic staff are given orientation whenever there are changes in the formats or any reporting guidelines. Quarterly and annual review meetings of the HIV 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 HIV 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 HIV clinics. It is a very cost-effective intervention as the primary investment is in the form of time of personnel involved.

**Data analysis & Dissemination:** Besides the analysis of cohort data for survival analysis and mortality estimation that are presented in the annual report, SIM unit also brings out separate cohort ART data analysis reports from time to time.

## KEY HIGHLIGHTS AND CONTRIBUTION TO THE PROGRAM

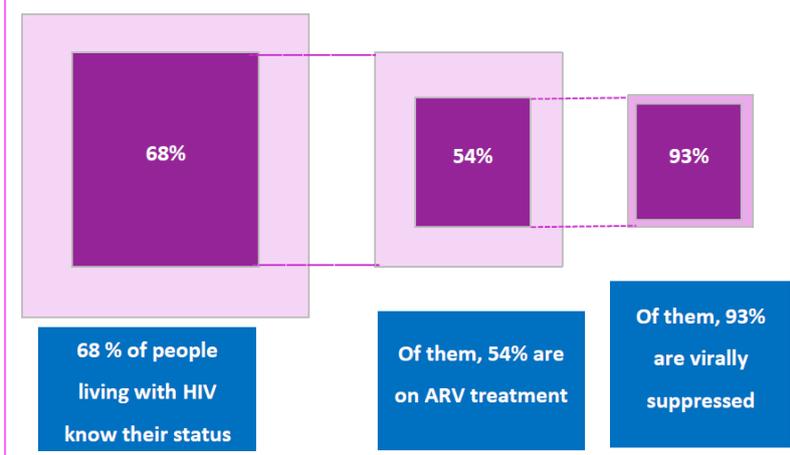
The key highlights of the Excel-based cohort tracking of PLHIV include:

1. Extensive, well-documented case files for all PLHIV is the primary source of information for cohort tracking and cascade analysis of PLHIV data.
2. Individual level reporting in electronic form ensures computerisation of key variables required for cohort tracking.
3. Active tracking & follow-up of LFU by PHI/Nurse ensures that treatment adherence of PLHIV is high.
4. High level, uniform reporting from all HIV clinics ensures that the data is complete and updated.
5. Systematic analysis & periodic dissemination of the longitudinal data ensures the utility of the data in the program.

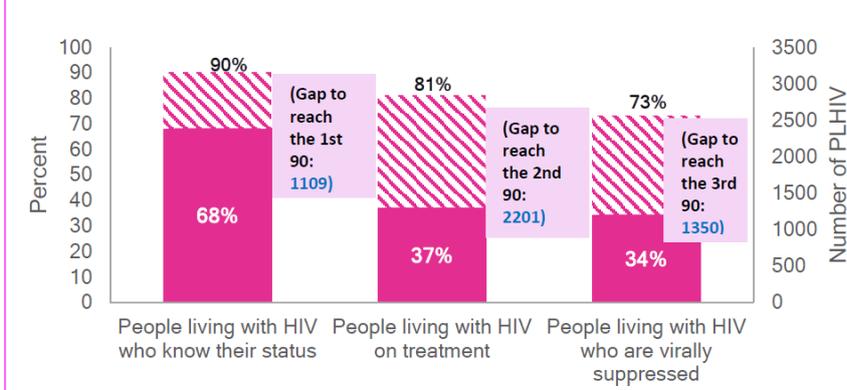
## OUTCOMES & ANALYTIC OUTPUTS

The most valuable outcome of the cohort tracking of PLHIV on ART is the identification of lost-to-follow ups at the facility level for immediate action, follow up and tracing efforts. Secondly, the data compiled at national level generates a strong database of all PLHIV in the country with rich information that can be used for strategic planning. The estimates of survival of PLHIV on ART at 12-60 months as stipulated by the international reporting requirements are also generated from this data. The data also enables the program to monitor the progress and against the fast track (90-90-90 targets) and End of AIDS targets.

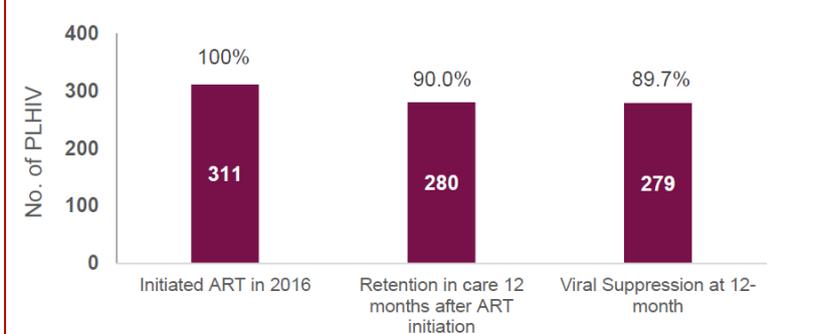
**Figure 9: Status of 90-90-90 treatment targets as of end 2017**



**Figure 10: Cross sectional HIV treatment cascade as of end 2017**



**Figure 11: Longitudinal HIV cascade among PLHIV who initiated ART in 2016**



## STAKEHOLDER PERSPECTIVES & EXPERIENCES ON THE BEST PRACTICE

HIV clinic staff are all trained and oriented in the registers and reporting formats. Since the number of PLHIV receiving treatment at each HIV clinic is relatively not very high, except a few centres, the staff make efforts to ensure quality of data. *“We know all the PLHIV registered at our clinic personally and remember the case details of each one of them, as we have dealt with them from the time of detection. This also gives us personal rapport with the PLHIV to keep up their trust and keep them linked to care and treatment,”* said one of the consultant venereologists.

*“ART registers are well-structured and easy to maintain. Documentation is simple and straightforward. We are also oriented on entering the data from the registers into the excel database every quarter,”* said a staff nurse at one of the HIV clinics.

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

Some of the key contributory factors that led to the development of PLHIV cohort tracking system into a best practice in SI are as follows.

1. Robust PLHIV patient case files maintained meticulously by the doctors at HIV clinics
2. Simple excel-based tools that are easy to use, update and submit
3. Strong focus from SIM unit of NSACP on the reporting and quality of the cohort data

Some recommendations to further improve the system are as follows.

1. While the ART cohort tracking is being successfully implemented across all the HIV clinics, staff at some clinics may be provided periodic refresher trainings on the documentation and data entry steps.
2. Follow up tracking registers may be streamlined more to ensure that all the efforts to trace a case of LFU are documented.
3. Cohort database may also include LFU tracking as one of the variables.
4. Entire clinical history and progression of the PLHIV on ART may be captured once the system evolves into a completely electronic data management system.

## **CONCLUSION**

Well-established documentation and record-keeping systems at all HIV clinics, extensively maintained and updated patient case files coupled with simple, easy to use, excel-based cohort database tool that is reported quarterly to SIM unit make the entire cohort tracking of PLHIV on ART, a best practice in strategic information. Integration of individual level reporting into the upcoming EIMS along with automated alerts for lost-to-follow-ups and monitoring of drug regimens will further strengthen the cohort tracking system under NSACP. Such an electronic system can generate automatically the desired analysis of indicators from time to time.

**The Qualitative Best Practice Scorecard** applied to the cohort tracking of PLHIV on ART under NSACP is presented below. This area is of high relevance and criticality to the program since it contributes to the core objectives and indicators of the program. Community participation in the data reporting system is not direct and hence not applicable. 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 and ethical soundness in the system is high. Replicability in other programs and countries is high as NSACP sets an example in this area. It is an efficient and less time-consuming system without the need for much resources, and hence rated high on efficiency. Effectiveness is high since the system

appropriately serves its intended purpose of PLHIV tracking and retention on ART and providing evidence for key indicator generation. Sustainability is not an issue in view of the simple excel-based tools as well as the upcoming EIMS.

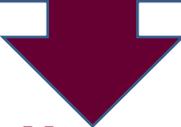
#### Qualitative Best Practice Scorecard

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

#### **KEY HIGHLIGHTS OF THE BEST PRACTICE**

- **Extensive, well-documented case files for all PLHIV**
- **Individual level reporting in electronic form**
- **Active tracking & follow-up of LFU by PHI/Nurse**
- **High level, uniform reporting from all HIV clinics**
- **Systematic analysis & periodic dissemination**

### **3. Emerging Best Practices under Strategic Information**



- 3.1. Electronic Information Management System (EIMS) – An effective case & program management tool for HIV/AIDS**
- 3.2. Comprehensive Dashboard for Effective Programmatic Decision Making**
- 3.3. Social Media Outreach for NSACP**

## 3. Emerging Best Practices under Strategic Information

### 3.1. Electronic Information Management System (EIMS) – An effective case & program management tool for HIV/AIDS

#### EXECUTIVE SUMMARY

**Introduction:** NSACP has traditionally adopted a paper-based system of documentation and reporting from all its STD/HIV clinics. However, with the increasing caseloads at STD/HIV clinics and in view of the available technological solutions, there is a greater need for real time monitoring of program service delivery and individual tracking of HIV cases. In view of the above, SIM unit of NSACP has launched a program to develop an Electronic Information Management System (EIMS) as a replacement for the paper-based individual level recording and reporting system extant in NSACP currently. The development of EIMS was initiated during December 2017.

**Features:** The proposed web based EIMS would be consisting of a comprehensive Electronic Medical Record (EMR) System for HIV care and monitoring, ART and other Pharmacy Management System (PMS), a Laboratory Information Management System (LIMS) and STD Clinic Management System. EIMS is a comprehensive data management solution that will take care of most of the data management needs of NSACP. EIMS will ensure individual level reporting of all cases from STD & HIV clinics, tagged with unique IDs. The system ensures smooth data flow between various modules. The system is linked to a barcode mechanism with barcode readers made available to all the clinics. DHIS 2 platform is being used for the analytic component of EIMS, that will enable customised report generation for various program managers at different levels.

**Conclusion:** EIMS will truly be a best practice in SI in future since it addresses all the critical functions required of an advanced HIV/AIDS data management system, that is justly needed for the end game strategy of end of AIDS. Linking all program components into one system, data collection at individual level and integration with advanced analytics are the unique features that make EIMS an emerging best practice.

#### BACKGROUND AND NEED

NSACP has traditionally adopted a paper-based system of documentation and reporting from all its STD/HIV clinics since the beginning of the programs several decades ago. Though it is a paper-based system, strong protocols and systems were put in place to ensure high level of uniform reporting, data compilation, analysis and dissemination from time to time. However, with the increasing caseloads at STD/HIV clinics and in view of the available technological solutions, there is a greater need for real time monitoring of program service delivery and

individual tracking of HIV cases. Further, in view of the long-standing ART services provided to PLHIV, paper-based tracking has limitations.

In view of the above, SIM unit of NSACP has launched a program to develop an Electronic Information Management System (EIMS) as a replacement for the paper-based individual level recording and reporting system extant in NSACP currently. The development of EIMS was initiated during December 2017. This project is funded by GFATM through Ministry of Health, Nutrition & Indigenous Medicine, Govt. of Sri Lanka.

## PROJECT OVERVIEW

The proposed web based EIMS would be consisting of a comprehensive Electronic Medical Record (EMR) System for HIV care and monitoring, ART and other Pharmacy Management System (PMS), a Laboratory Information Management System (LIMS) and STD Clinic Management System. The key features of the EIMS for NSACP should be able to integrate with the peripheral ART centres and other national level health projects. Some specific objectives of the EIMS development are as below.

- To design and develop the System used at the NSACP with regards to aggregate and individual case recording and reporting.
- To develop an interface to capture HIV testing data from Private Sector Hospitals, prisons and other HIV testing laboratories.
- To design and develop:
  - Electronic Medical Record (EMR) System for HIV care and monitoring, ART
  - Electronic Medical Record (EMR) System for Laboratory.
  - Electronic Medical Record (EMR) System for Pharmacy.
  - STD Clinic Management System.
  - Computerize the form "Strategic information on laboratory confirmed HIV infections
  - Develop a module to interconnect with DHIS2
- To provide user training to the relevant staff of NSACP and other relevant users.
- To implement the web based Electronic Information Management System (EMIS) for NSACP.
- To develop a strategy to obtain continuous support for the web based Electronic Information Management System to NSACP.

The system was also envisaged to ensure the following aspects.

- Adherence to e-Government Policy of Sri Lanka
- Adherence to Web 2.0 concepts, open standards and Service Oriented Architecture (SOA) principles.
- Adherence to Lanka Interoperability Framework (LIFe)
- The information system should have the capacity to be later integrated/interlinked with the national HIS in line with the national strategic planning for the period 2016-2020.

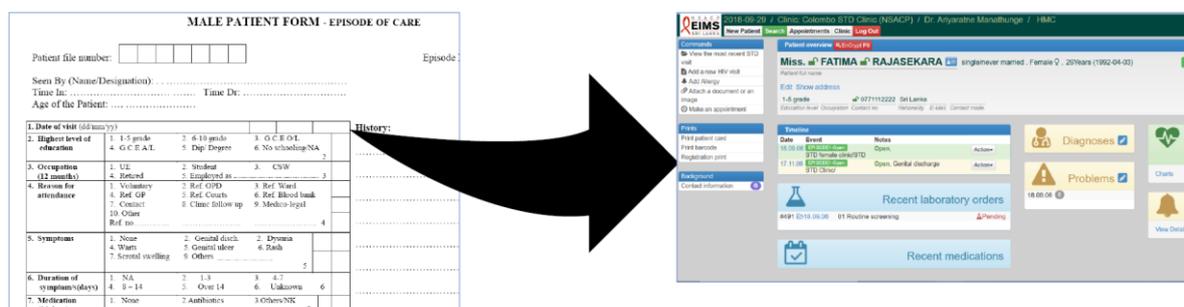
- Work collaboratively with ICTA and other related government organizations
- Develop a unique identifier ensuring confidentiality of the patient
- Should have high level cyber security and should get report from National Centre for cyber security.

The overall development process is coordinated by the Strategic Information Management unit of NSACP under the overall supervision and guidance of Technical Evaluation Committee and Project Steering Committee, constituted by NSACP. The TEC has representation from the Ministry of Health, Nutrition & Indigenous Medicine, Govt. of Sri Lanka as well as Information Communication Technology Agency (ICTA) – (ICT institution of the Government), besides key officers from NSACP.

## STRUCTURE OF EIMS

EIMS will integrate all the key program components, capturing the data at the individual level. The main modules in EIMS are as follows.

1. Registration module
2. STD care module
3. HIV care module
4. Pharmacy module
5. Laboratory module
6. NGO/Private sector information module
7. Queue management system
8. Reporting module



## UNIQUE FEATURES OF EIMS

EIMS is a comprehensive data management solution that will take care of the most of the data management needs of NSACP. EIMS will ensure individual level reporting of all cases from STD & HIV clinics, tagged with unique IDs. The system ensures smooth data flow between various modules. The system is linked to a barcode mechanism with barcode readers made available to all the clinics. HHMIS-ICTA-2009 is taken as the base for developing the system so that integration with larger health and hospital databases will be easier. High security of data is

ensured through the required security protocols. User level encryption is put in place. DHIS 2 platform is being used for the analytic component of EIMS, that will enable customised report generation for various program managers at different levels. A strong back up protocol is also in place with replication servers for all major servers, master back up and CD-back up options.

A well-structured training plan along with user manuals and SOPs are being developed to aid the roll out of the EIMS. Q-refs and data dictionaries are also being developed. Walk through video documentation for each module will be developed to facilitate self-learning.

### **HARDWARE REQUIREMENTS FOR EIMS ROLL OUT**

The following hardware requirements have been worked out and are being procured by NSACP to ensure successful roll out of the EIMS across the country at all the STD clinics

<b>Items</b>	<b>Quantity</b>
No. of computers	245
No. Bar code Readers	241
No. of Label printers	78
No. of Scanners	38
No. of POS printers	36
Laser printer	38
Wi-Fi Routers	36
TV Screen	39
Webcam	42
Local Server	34
75mm x 50mm Label Roll, 2000Pcs	230
25mm x 15mm Film Roll, 10000Pcs	100
45mm x 18mm Label Roll, 2000Pcs	250
80mm x 300m Wax Ribbon	208
Resin Ribbon (Micro)	100

### **POTENTIAL CHALLENGES**

Some of key challenges in successful roll out and implementation of EIMS include human capacity issues at peripheral STD clinics including computer and english skills. Internet connectivity and electricity issues also affect the functioning of computers at all centres. It may take some time before the NSACP and all its staff take complete ownership of the new system and new mechanism of data management. EIMS will be the first system installed on the cloud and hence may see some teething problems at earlier stages. Barcode based technology may pose some issues.

**PLANNED TIMELINES** for Development & Rollout of EIMS are as below.

Activity	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	June'17	July'17	Aug'17	Sep'17	Oct'17	Nov'17	Dec'17	Jan'18
Analysis of existing PIMS system	█															
Requirement gathering	█															
Appointment of TEC and Project steering committee		█														
Calling for Quotations		█														
Awarding the project to the recommended company by TEC			█													
Project plan & Detailed Requirements			█	█												
Detailed Design ,Architecture & Test plan					█	█	█									
EMR for HIV & ART Monitoring – Application prototype, test cases & User training								█	█	█	█	█	█			
STD & Queue management system– Application prototype, test cases & User training															█	█

Activity	Feb'18	Mar'18	Apr'18	May'18	June'18	July'18	Aug'18	Sep'18	Oct'18	Nov'18	Dec'18	Jan'19	Feb'19	Mar'19	Apr'19	May'19
EMR for Laboratory – prototype, test cases & User training	█	█	█													
Field Visit to the peripheral institutions implementation, maintenance of the system				█	█											
Continues monitoring and evaluation						█	█	█	█							

### SCOPE AS AN EMERGING BEST PRACTICE IN SI

EIMS will truly be a best practice in SI in future since it addresses all the critical functions required of an advanced HIV/AIDS data management system, that is justly needed for the end game strategy of end of AIDS. Linking all program components into one system, data collection at individual level and integration with advanced analytics are the unique features that make EIMS an emerging best practice. To enhance its productivity and value, it may also consider inclusion of entire spectrum of HIV case tracking starting from ANC clinics, TB clinics etc. Further, EIMS should facilitate longitudinal or cohort tracking of PLHIV on ART as well as pregnant women and exposed babies under PMTCT program. Customisable analytics module linked to a well-structured dashboard will make EIMS, one of the best HIV/AIDS SI systems in the world.

## 3.2. Comprehensive Dashboard for Effective Programmatic Decision Making

### EXECUTIVE SUMMARY

**Introduction:** Dashboard is a data presentation & visualisation tool to assist program managers in their routine programmatic decision making and contributes to improving both efficiency and effectiveness of the program management. Development of a comprehensive dashboard for NSACP is identified as an emerging best practice in Strategic Information under NSACP.

**Objectives:** To evolve a comprehensive dashboard for NSACP that can support effective programmatic decision making and link it with the existing data systems

**Methods:** Secondary review of the program requirements and identifying dashboard indicators, identifying the data sources and exploring the potential data visualisation options for the dashboard

**Results:** Existing core indicators under NSACP and their data sources, current SI system and data flow mechanisms, published documents and reports have been reviewed to identify the core dashboard indicators. It is ensured that they are in line with the latest National Strategic Plan 2018-22 as well as international reporting requirements. Data sources, disaggregation and periodicity of reporting along with definitions of core indicators have been proposed. Data visualisation options and effective means of communicating them to program managers on a real time basis have been recommended. The program areas include STI management, Key Population prevention, PMTCT, HIV diagnosis, care & treatment and laboratory management. Indicators include those related to need, inputs, processes, outputs, outcomes and impacts of NSACP.

**Conclusion:** The dashboard presents a comprehensive view of the program, highlights critical indicators important for monitoring progress & gaps and underlines the aspects that need attention and immediate action, thereby contributing to effective program management. The potential use of data that it will promote in the program and the support it will provide to the program managers will make it emerge as a best practice under SI.

### INTRODUCTION

Dashboard is a data presentation & visualisation tool to assist program managers in their routine programmatic decision making and contributes to improving both efficiency and effectiveness of the program management.

#### An effective dashboard

- ✓ Presents a comprehensive view of the program
- ✓ Highlights critical indicators, important for monitoring progress & gaps in service delivery
- ✓ Does not clutter the view with details

- ✓ Presents indicators in a fashion that highlights the aspects that need attention and immediate action
- ✓ Allows for drill down of indicators, if required, to disaggregated levels to identify the units at a lower level

Dashboard indicators may be identified and evolved based on national program requirements, priorities and international commitments. Going with the latest international guidelines, it is important that the data on dashboard indicators be collected in a granular fashion/ disaggregated structure, so that the data is amenable for local action.

### **NEED FOR A COMPREHENSIVE DASHBOARD FOR NSACP**

Currently, NSACP has a paper-based documentation system at all its reporting units. SIM unit collects quarterly returns using Excel-based formats that are compiled and analysed by them. However, since they are not integrated into one system, sometimes, the data on linkages, cross-referrals, patient tracking and follow-up etc. could be missing. M&E data is used for annual reporting and can also be used for improving program management. M&E mechanisms such as identifying centres with good and poor data management, taking actions on poor performing centres, etc., may be strengthened. Scorecard for rating the facilities to assess the performance can be developed for routine monitoring and identification of poorly performing facilities. Thus, developing a comprehensive dashboard for case and program management will be a significant value addition to the strategic information functions being performed by the SIM unit.

SIM Unit of NSACP is in the process of developing an Electronic Information Management System (EIMS) to computerise the data collection and reporting as well as to integrate all the program components into one system. It will integrate HIV care, ART, laboratory, STI management and all other components of the program. In this process, NSACP aims to develop a dashboard for the EIMS that can improve the overall program efficiency and at the same time align itself with the international commitments of periodic reporting. EIMS may also give access to the peripheral facilities to see their own dashboards, thereby enhancing their ability to appreciate data and its use in the program. Further, the electronic platform may have the ability to produce standard scheduled reports – weekly, monthly, quarterly – as the need may be, to ensure that the dashboard indicators are periodically communicated to the required audience in a report format.

### **PROCESS OF DEVELOPING DASHBOARD INDICATORS**

In view of the above, The Voluntary Health Services – Centers for Disease Control (VHS-CDC) Project has initiated the work on developing dashboard indicators for NSACP. Accordingly, the activity was carried out during Jan – Feb 2018 and the report on comprehensive dashboard indicators was submitted to NSACP. The key steps undertaken include

- ✓ Identifying dashboard requirements
- ✓ Assessing the current NSP indicators
- ✓ Understanding the existing data systems & sources of indicators

- ✓ Exploring the 'slice & dice' potential of the indicators
- ✓ Visualising the best possible ways to present the indicators
- ✓ Learning from the best practices in the region
- ✓ Considering the issue of coherence with AIDS Data Hub, WHO/UNAIDS websites, etc.
- ✓ Examining the mechanisms to link it with EIMS & website

In the process of development of the dashboard, the following areas and documents were thoroughly reviewed.

- Existing core indicators under NSACP and their data sources
- Current SI system under NSACP to identify the potential sources of data on various key program areas
- Various published documents and reports on NSACP website including annual reports, NSP, M&E plans, Evaluation reports, etc.
- Published HIV/AIDS dashboards of various South East Asian countries
- International guidelines and recommendations from WHO, UNAIDS, CDC, The World Bank and The Global Fund on core indicators to be reported
- Reports of exploratory visits by CDC & VHS delegations to Sri Lanka

**A National Workshop on Developing Dashboard Indicators** was jointly organised by the National STD/AIDS Control Programme (NSACP), Sri Lanka and the Voluntary Health Services, Supported by Centers for Disease Control and Prevention (VHS-CDC Project) at **NSACP Conference Hall**, NSACP, De Seram Place, **Colombo** on **27 Aug 2018**. The purpose of the meeting was to present and discuss the proposed dashboard indicators with a larger group of stakeholders in the program and partner agencies and take their feedback in finalising the dashboard indicators. Some important suggestions emerged in the meeting to improve the dashboard indicators and the proposed dashboard indicators were broadly agreed upon.

### **KEY ASPECTS OF THE PROPOSED DASHBOARD INDICATORS**

The key aspects considered in finalising the dashboard indicators include

- ✓ In line with the current strategies and indicators under NSACP as outlined in the latest National Strategic Plan 2018-22.
- ✓ Also aligned with the international reporting requirements.
- ✓ Presents the proposed data sources, proposed disaggregation and periodicity of reporting.
- ✓ Proposed definitions for the dashboard indicators have also been added.
- ✓ Recommended ways of data visualisation for on the electronic format
- ✓ Proposed means of communicating the same to the national and provincial program managers on a real time basis.

### **KEY PROGRAM AREAS FOR DASHBOARD**

Dashboard indicators have been developed for the following key program areas.

- ✓ Overall Program Indicators
- ✓ Prevention – STI Management

- ✓ Prevention – Key Population Interventions
- ✓ PMTCT
- ✓ HIV Diagnosis, Treatment & Care
- ✓ Laboratory Management

Indicators have been grouped into key program elements covering **Need – Impact – Outcome – Output – Process – Input Indicators.**

A snapshot of the propose dashboard indicators is as below:

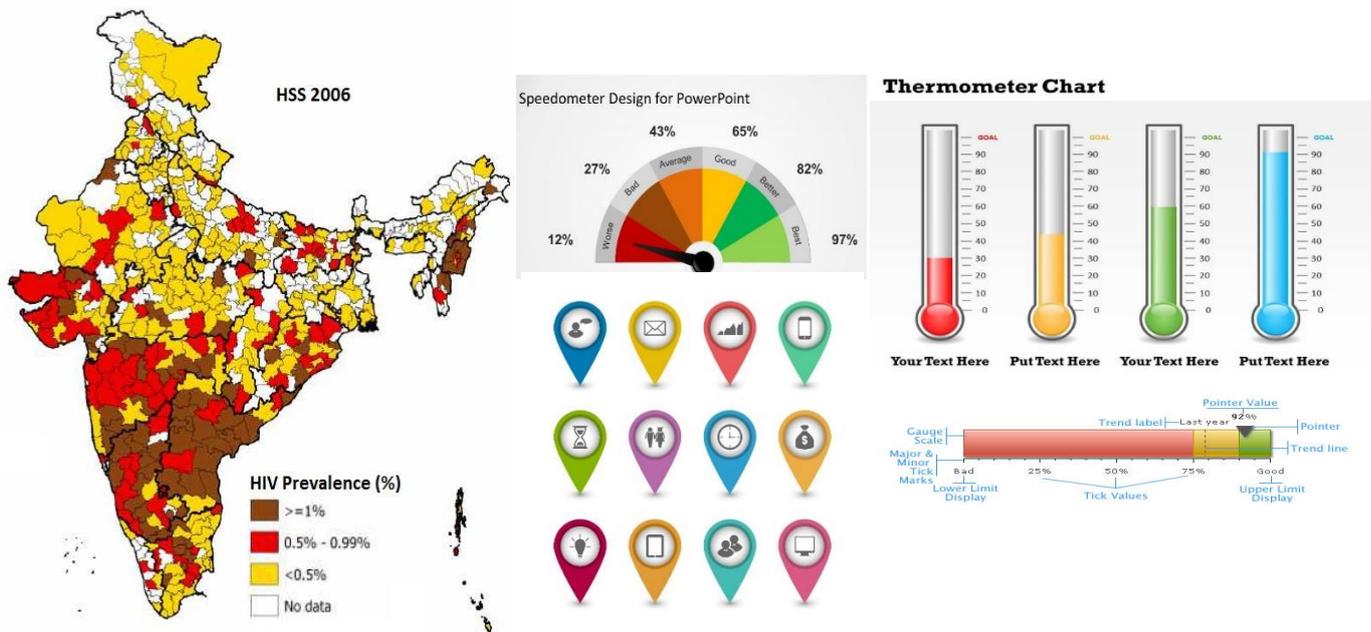
S.No.	Type	Proposed Dashboard Indicator	International Reporting Requirement
<b>Overall Programme</b>			
A	Impact	HIV Incidence	GFATM, UNAIDS (GAM 2018)
B	Impact	HIV Mortality	GFATM, UNAIDS (GAM 2018)
<b>STI Management</b>			
1.1	Outcome	Prevalence of common STIs based on etiological diagnosis/ Syphilis among pregnant women	GFATM, UNAIDS (GAM 2018)
1.2	Output	% of STI cases treated	
1.3	Process	No. of STI clinic attendees visiting STI clinics	
1.4	Input	% of STI clinics reporting Stock outs in STI test kits and STI drugs	
<b>KP Prevention</b>			
2.1	Need	Size of KP	UNAIDS (GAM 2018)
2.2	Impact	No. of new HIV cases detected	GFATM, UNAIDS (GAM 2018)
2.3	Outcome	Consistent Condom Use/ Clean N-S Use	GFATM, UNAIDS (GAM 2018)
2.4	Output	Prevention coverage of KP	GFATM, UNAIDS (GAM 2018)
2.5	Process	% KP tested for HIV	GFATM, UNAIDS (GAM 2018)
2.6	Process	Condom Gap	
2.7	Input	Availability of adequate number of peer educators at all KP interventions	
<b>PMTCT</b>			
3.1	Impact	No of new paediatric HIV infections per 100,000 live births	
3.2	Impact	Mother to Child Transmission (MTCT) Rate	GFATM, UNAIDS (GAM 2018)
3.3	Impact	No of cases of congenital Syphilis per 100,000 live births	UNAIDS (GAM 2018)
3.4	Cascade	Antenatal Care Coverage (at least one visit)	
3.5	Cascade	Coverage of HIV testing of pregnant women	UNAIDS (GAM 2018)
3.6	Cascade	ART coverage of HIV-positive pregnant women	GFATM, UNAIDS (GAM 2018)
3.7	Cascade	Coverage of HIV testing of exposed babies at 18 months	
3.8	Cascade	Coverage of syphilis testing of pregnant women	
3.9	Cascade	Treatment coverage of syphilis-seropositive pregnant women	
<b>HIV Diagnosis, Treatment &amp; Care</b>			
4.1	Need	Estimated no. of PLHIV	
4.2	Impact	Survival rates among PLHIV on ART at 12, 24, 36, 48 & 60 months	GFATM, UNAIDS (GAM 2018)
4.3	Outcome	% of PLHIV aware of their status	UNAIDS (GAM 2018)
4.4	Outcome	% of PLHIV who know their status receiving ART	GFATM, UNAIDS (GAM 2018)
4.5	Outcome	% of PLHIV receiving ART virally suppressed	UNAIDS (GAM 2018)
4.6	Process	HIV Testing coverage of key and vulnerable population	
4.7	Process	Linkage loss/ Lost to follow up between referral – screening – confirmation of HIV test results	
4.8	Process	Linkage loss/ Lost to follow up between confirmation and initiation on ART	
4.9	Process	Lost to follow up on ART	
4.10	Process	Viral load testing coverage of PLHIV receiving ART	
4.11	Input	No. of ART centres reported ART Drug stock outs	GFATM, UNAIDS (GAM 2018)
<b>Laboratory Management</b>			
5.1	Input	Availability of test kits and reagents/ % of labs reporting stock out of test kits or reagents	
5.2	Outcome	Quality Assurance for various laboratory tests/ % of labs with discordance	
5.3	Outcome	Levels of drug resistance	
5.4	Input	Availability of laboratory staff/ % labs reporting vacancies	

## PROPOSED DATA VISUALISATION OPTIONS

The following data visualisation options were suggested for the development of dashboard.

- ✓ Graded colour-coded geo-spatial maps for district-level/ province level differentials: These are geo-spatial maps that can show geographic distribution of different levels of achievement of a given indicator
- ✓ Donut charts to show the distribution of key impact/ service delivery numbers across provinces
- ✓ Speedometers/ Thermometers with colour categories to show achievement levels (High/Mod/Low)
- ✓ Coloured icons showing absolute numbers
- ✓ Metered Scales with pointers to show the progress of cascade indicators

- ✓ Infographic styled graphs – bar graphs, pie charts, etc.
- ✓ Performance scorecards to identify and highlight the poor performing facilities/ districts/ provinces
- ✓ Thematic tables showing the list of gap areas for a given indicator



## POSSIBLE LIMITATIONS

The following **limitations** were also identified that may affect the development and operationalisation of an effective dashboard and hence, need to be addressed carefully.

- Data flow limitations
- Limitations in data on disaggregations
- Reporting gaps
- Data quality issues
- Possible technical snags

## CONCLUSION

NSACP SIM Unit will be the nodal agency leading the development of the comprehensive dashboard with the technical support of VHS-CDC Project. There will be only one comprehensive dashboard for the program and different data systems including the upcoming EIMS will be integrated with the dashboard. A roll out and capacity building plan will also be evolved for its smooth and effective use at all levels. The program aims to develop this dashboard as a best practice over the next year.

### 3.3. Social Media Outreach for NSACP

#### EXECUTIVE SUMMARY

**Introduction:** Social media is an umbrella term that describes websites and apps that connect people and involve user generated content. Social Media gives us the ability to connect with almost anyone, anywhere at any time. Social Media is an easy and effective way to increase the reach and the impact of our initiatives. Social Media makes more people aware of our services, programs, achievements, best practices, innovations etc.

**Role in NSACP:** The current NSACP website has been identified as a functional best practice with a lot of aspects that are highly user friendly and serve the purpose of wider dissemination of information. However, a need was felt to further enhance its reach, impact and utility for a larger segment of population by integrating it with social media channels. Face Book, Twitter, LinkedIn, Instagram, Pinterest, YouTube, Whatsapp and others have been identified as key social media channels that can be explored for integration.

**Activity Plan:** A social media outreach plan is envisaged considering the possible opportunities to reach out to the audiences at International and National level for continued effective dissemination and update. Developing a social media outreach (SMO) plan includes - Creating social media outreach objectives, Conducting a social media audit, Creating & improving social media accounts, Creating a content outreach plan and a social media content calendar and evaluating and adjusting social media outreach plan. SIM unit of NSACP, with the technical support from VHS-CDC Project, Chennai aims to integrate the existing website with strategically important social media channels and evolve it into a best practice in the area of strategic information.

#### INTRODUCTION

Social media is a collection of websites or apps that let people interact with one another by creating and sharing images, text, videos and even GIFs. There are a variety of social media platforms, from Face book, Twitter and WhatsApp to YouTube and LinkedIn.

Social media has completely changed the way a business can reach its customers. From small start-ups with five team members to large corporate with 50,000 employees, companies are using social media to reach and inspire people all over the world. It offers a huge amount of opportunity to really get to know your customers and to build relationships with them. It's an exciting way to share information and promote strategies under social and health sector.

Social media is an umbrella term that describes websites and apps that (1) connect people and (2) involve user generated content. User generated content is the hallmark of a social media site versus a traditional website. This model contrasts with the editorially controlled style of old media. Social media is sometimes called Web 2.0.

Some specific benefits of social media are as follows:

- Social Media gives us the ability to connect with almost anyone, anywhere at any time.
- Social Media is having a huge impact.
- Social Media is a real time communication without any disruption.
- Social Media promotes new partnerships, loyalty by engaging marketing activities
- It is simple, cost effective, and immediate and ensures maximum reach.
- Organisations are using Social Media to reach and inspire people all over the world.
- Using Social Media by small start-up to big companies including CSOs, Government, Donors, key stake holders , Research agencies, Academic Institutions and others
- SM Connect with our targets /audience through online.
- Social Media offers a business the potential to reach millions of people all over the world in a targeted and personalized way.
- It helps to reach new customers quickly.
- Social Media is an easy and effective way to increase the reach and the impact of our initiatives
- Social Media makes more people aware of our services, programs, achievements, best practices, innovations etc.
- Social Media ensures real time communication and allows our products are accessible and available at any time.
- Online community people shares the recommendations, opinions and news about our products, initiatives, best practices etc. This helps in enhancing customer's loyalty and potential dissemination opportunities.

## **ROLE OF SOCIAL MEDIA UNDER NSACP DATA & INFORMATION DISSEMINATION**

The current NSACP website has been identified as a functional best practice with a lot of aspects that are highly user friendly and serve the purpose of wider dissemination of information. NSACP website acts as single point resource centre for any information on HIV/AIDS for a wide range of stakeholders. However, a need was felt to further enhance its reach, impact and utility for a larger segment of population by integrating it with social media channels.

'The National Workshop on Developing Dashboard Indicators & Evolving Plans for Enhancing NSACP Website' was jointly organised by the National STD/AIDS Control Programme (NSACP), Sri Lanka and the Voluntary Health Services, Supported by Centers for Disease Control and Prevention (VHS-CDC Project) at **NSACP Conference Hall**, NSACP, De Seram Place, **Colombo** on **27 Aug 2018**. The idea of integrating NSACP website with various social media channels has been discussed at length at the consultation.

## KEY SOCIAL MEDIA CHANNELS

Face Book, Twitter, LinkedIn, Instagram, Pinterest, YouTube, Whatsapp and others have been identified as key social media channels that can be explored for integration.

## OBJECTIVES

Website can be effectively linked up with various social media channels to

- ✓ Enhance the dissemination of information
- ✓ Make the info reach the right audience
- ✓ Ensure real time sharing of important updates
- ✓ Improve the reach & effectiveness of interventions
- ✓ Improve the involvement of various stakeholders
- ✓ Open up channel for receiving feedback from a diverse segments

## TARGET AUDIENCE FOR NSACP SOCIAL MEDIA OUTREACH PLAN

The social media outreach is envisaged considering the possible opportunities to reach out to the following audiences at International and National level for continued effective dissemination and update.

<b>International Level Audience</b>
<ul style="list-style-type: none"><li>• Donors</li><li>• UN agencies</li><li>• Key stakeholders involved in Health, HIV and other related fields</li><li>• TA Agencies</li><li>• Training and Academic Institutions</li><li>• Research Agencies/Organisations</li><li>• Policy influential Groups/Individuals/Organisations</li><li>• I-NGOs</li><li>• Advocacy and Networking Groups/Organisations</li><li>• Research Scholars/Students</li><li>• International Libraries/Repositories</li><li>• Individual experts, consultants, Professionals, etc</li></ul>
<b>National Level Audience</b>
<ul style="list-style-type: none"><li>• Health and other Ministries</li><li>• Policy makers</li><li>• Parliamentarians</li><li>• Faith leaders</li><li>• Provinces and District Authorities</li><li>• GFATM and other Supporting Donors</li><li>• UN Agencies –based in Sri Lanka</li><li>• Embassies</li><li>• Technical Assistance agencies</li><li>• Academic and Research Institutions</li></ul>

- PR<sub>1</sub> and PR<sub>2</sub> involved in HIV prevention among key and vulnerable population with the support of GFATM
- Reporting units (STD Clinics/ART Centres)
- Private Sectors /Corporate /Hospitals
- Medical associations, Professional Doctors Guild/Forums
- CSOs
- Researchers/Students
- Individuals
- Press and Media
- High Risk Population (not enrolled in TI)

## DEVELOPING A SOCIAL MEDIA OUTREACH PLAN

Developing a social media outreach (SMO) plan includes the following.

- ✓ Create social media outreach objectives
- ✓ Conduct a social media audit
- ✓ Create or improve your social media accounts
- ✓ Create a content outreach plan and a social media content calendar
- ✓ Test, evaluate, and adjust your social media outreach plan

## PROCESS FOR DEVELOPING SMO

- ✓ Secondary Review and Presentation of Plan with NSACP/SIMU, Consultation Meeting with NSACP and SIMU Team, Needs Assessments
- ✓ National Level Consultation Meeting
- ✓ Developing Social Media Outreach Strategy & Plan
- ✓ Engaging consultants/Agency for enhancing the site/SMO
- ✓ Consultant/Agency interaction with NSACP/SIMU team (sharing of information required, arriving at plans)
- ✓ Development of Website /Opening Social media Accounts, in consultation and coordination with SIMU team
- ✓ Presentation/Demonstration with SIMU team
- ✓ Pre-testing and obtaining feedback
- ✓ Incorporating the suggestions/feedback and improving
- ✓ Piloting / incorporating suggestions
- ✓ Finalization of Website development/SMO
- ✓ Follow-up TA to SIMU team (both by the consultant / agency and VHS-CDC Project team)

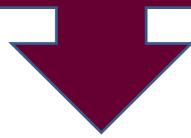
## CHALLENGES IN SOCIAL MEDIA OUTREACH

- Proliferation of digital channels. Consumers use multiple digital channels and a variety of devices that use different protocols, specifications and interfaces – and they interact with those devices in different ways and for different purposes.
- Intensifying competition. Digital channels are relatively cheap, compared with traditional media, making them within reach of practically every business of every size. As a result, it's becoming a lot harder to capture consumers' attention.
- Exploding data volumes. Consumers leave behind a huge trail of data in digital channels. It's extremely difficult to get a handle on all that data, as well as find the right data within exploding data volumes that can help you make the right decisions.

## CONCLUSION

SIM unit of NSACP, with the technical support from VHS-CDC Project, Chennai aims to integrate the existing website with strategically important social media channels and evolve it into a best practice in the area of strategic information. This emerging best practice may be rolled out over the next year.

## **4. Conclusion and Way Forward**



## 4. Conclusion and Way Forward

This report is an attempt to look at the SI systems and key SI initiatives under NSACP from a lens of documenting best practices. As mentioned under the methodology section, best practices are defined as those making significant contribution to the stated objectives and implemented in a manner, that makes it worth scaling up or replicating in other contexts. While several earlier efforts have been made globally to document best practices in HIV/AIDS response focusing on service delivery and related mechanisms, probably, this is the first endeavour to document best practices in Strategic Information related to HIV/AIDS in any national program, globally. While the standard format of presenting best practices adopted from various international guidelines, reports and scientific papers has been used in this report, it is customised wherever required to suit the issue under discussion.

The framework for identifying and reviewing the best practices in SI with its eight elements and applicability to the context of SI in HIV/AIDS, is presented below.

1. Relevance to the program – criticality in the program; responding to the programmatic needs
2. Community participation – involvement of beneficiaries in implementation; Rapport-building in clinical services; treatment adherence and contact tracing
3. Stakeholder collaboration – ownership and involvement of internal stakeholders (program personnel) and external stakeholders (institutions, donors, health department units, non-health players)
4. Ethical soundness – respect for the privacy, confidentiality and rights of beneficiaries & communities; data sharing policies;
5. Replicability – scale up potential; replication in newer settings and changing context; replication in other countries
6. Efficiency – value and value addition of the outputs from the SI system vis-à-vis the investments in terms of time and efforts of program personnel
7. Effectiveness – SI systems serving their right purposes and stated objectives; contributing effectively to the program goals, strategic planning and policy making
8. Sustainability – resource availability (HR, systems, costs, material) over a long time to ensure smooth implementation and improving quality

Based on the review of the selected SI initiatives or systems from the above approach, the following qualitative scorecard has been evolved, to highlight the initiatives as best practices in Strategic Information.

## BEST PRACTICE QUALITATIVE SCORECARD

Category	Criteria	STD Surveillance & PM	HIV Case Tracking	Data Archiving & Dissemination	Cohort Tracking of PLHIV
Context	Relevance	High	High	High	High
Process	Community Participation	Not Applicable	Not Applicable	Low	Not Applicable
	Stakeholder Collaboration	Moderate	High	Moderate	Moderate
	Ethical Soundness	High	High	High	High
	Replicability	High	Moderate	High	High
Outcomes	Efficiency	Moderate	Moderate	High	High
	Effectiveness	High	High	High	High
	Sustainability	High	Moderate	High	High

This review and documentation of the SI best practices provided a unique opportunity for NSACP to re-look at its existing systems under SI, identify the strengths and limitations and prioritise action areas to improve them further. It facilitated a deep review of the factors that worked and that can potentially lead to further development. This exercise also highlighted the often undermined areas of Strategic Information Management such as community participation, stakeholder collaboration and staff efficiency issues that have an indirect impact on the overall productivity and effectiveness of SI in the program. Another important contribution of this effort is to capture the potential emerging best practices that will shape up the SI efforts in the next one to two years, thereby raising the importance of these initiatives and the priority they deserve in their development and roll out. Further, the documentation of SI best practices also partially captured some of the best practices in HIV/AIDS service delivery under NSACP since SI systems are so closely intertwined with service delivery.

Finally, as noted earlier, exclusive documentation of best practices specific to the area of Strategic Information Management of HIV/AIDS is highly limited and this is probably one of the global firsts. This itself will be another best practice that NSACP of Sri Lanka has established for other countries to emulate.

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34. STI case definitions for surveillance in Sri Lanka

## Annexes

### Documentation of Best Practices in SI under NSACP - Interview Guide on Key Aspects for Documentation

1. **Key Objectives** of the SI practice
2. **Historical perspective** – When started? How it started? Key milestones in evolution? Major changes it undergone? Periods / phases - pre-phase, implementation phase, consolidation phase? Any previous documentation/ assessment/ review done of the system/practice? Any key persons/ institutions who contributed to its development?
3. **Technical details** of the best practice –
  - a. What is done? – Details of the implementation steps
  - b. Who does – Key stakeholders involved in the process & their roles?
  - c. How is it done? – Paper-based/ electronic? Tools used? Methods adopted?
  - d. Registers & Reports? Reporting Formats?
  - e. Analysis & Dissemination? Frequency?
  - f. Capacity building initiatives undertaken?
  - g. How it is institutionalized? Any external institutional support? International support?
  - h. Is it cost effective? Resources for the efforts-domestic, foreign or both? If so, % & roles?
  - i. Related Publications – Operational Guidelines, SOPs, Training Manuals, Reports, other publications, conference presentations, etc?
  - j. Dissemination to program persons concerned at all levels? Dissemination to general public?
  - k. OVERALL UNIQUE FEATURES?
4. **Key highlights and contribution** to the program – How is data generated, used? At what level? By whom? For what purposes? Any gaps? Contribution to NSACP?
5. **Sample analytic outputs** (to demonstrate the value/ value addition)
6. **Stakeholder perspectives & experiences** on the best practice –
  - a. Unique features?
  - b. Ease of use? Facilitators & Barriers in implementation?
  - c. Positive gains? Positive experiences? Individual/ Institutional
  - d. Challenges in implementation? Field level and higher levels? Longstanding challenges? How are challenges overcome?
7. **Limitations** in the practice/ system of implementation
8. **Lessons learnt** - Factors contributed for BP? What worked?
9. **Future potential** for scale up? Issues to be considered while scaling up?
10. **Recommendations** for future improvement

#### Anecdotes

1. Quotes, messages, feedback with name, designation and relevant photos
2. Specific Case studies/ Box items
3. Flowcharts, graphs, illustrations, data tables