Best Practices in Strategic Information

Best Practices Series 2

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

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.
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Foreword

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

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

In preparation of these best practices, we thank Dr Ariyaratne Manathunge, Consultant-Venereologist and Coordinator-SIMU, NSACP for his leadership and coordinating the technical assistance to NSACP as nodal officer for SIMU-NSACP. His strategic guidance in developing and bringing out the best practices document (book on best practices, best practices series and book of abstracts on best practices) covering both existing and emerging is highly appreciable. As a part of this, VHS-CDC Project in partnership with NSACP is bringing out “Best Practices Series” covering one book on each best practice on Strategic Information. In this regard, this book on best practice titled “HIV Case Tracking and Management System under NSACP - Gearing up for End of AIDS” has been developed for effective dissemination. We also appreciate the contributions made by SIMU team, all the NSACP senior officials, key stakeholders and peripheral STD clinic team members in developing these best practices.
We appreciate the technical support being extended by VHS-CDC Project with the support of Centers for Disease Control and Prevention (CDC-INDIA) in planning and conducting this study in a participatory manner for introducing evidence based comprehensive capacity building plan for the Strategic Information Management team.

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

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

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

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

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

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

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

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

**Dr Joseph D Williams,**
Director Projects,
The Voluntary Health Services (VHS),
Chennai/INDIA.
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal Care</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Therapy</td>
</tr>
<tr>
<td>ARV</td>
<td>Antiretroviral</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CSW</td>
<td>Commercial Sex Worker</td>
</tr>
<tr>
<td>DIC</td>
<td>Drop in Centre</td>
</tr>
<tr>
<td>EID</td>
<td>Early Infant Diagnosis</td>
</tr>
<tr>
<td>EIMS</td>
<td>Electronic Information Management System</td>
</tr>
<tr>
<td>ELISA</td>
<td>Enzyme Linked Immunosorbent Assay</td>
</tr>
<tr>
<td>Epi-Unit</td>
<td>Epidemiology Unit</td>
</tr>
<tr>
<td>FSW</td>
<td>Female Sex Worker</td>
</tr>
<tr>
<td>GFATM</td>
<td>Global Fund to Fight AIDS, TB and Malaria</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education and Communication</td>
</tr>
<tr>
<td>KP</td>
<td>Key Population</td>
</tr>
<tr>
<td>LFU</td>
<td>Loss to Follow Up</td>
</tr>
<tr>
<td>M &amp; E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MSM</td>
<td>Males who have Sex with Males</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organisation</td>
</tr>
<tr>
<td>NRL</td>
<td>National Reference Laboratory</td>
</tr>
<tr>
<td>NSACP</td>
<td>National STD/AIDS Control Programme</td>
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<tr>
<td>NSP</td>
<td>National Strategic Plan</td>
</tr>
<tr>
<td>PE</td>
<td>Peer Educator</td>
</tr>
<tr>
<td>PLHIV</td>
<td>People Living with HIV</td>
</tr>
<tr>
<td>SI</td>
<td>Strategic Information</td>
</tr>
<tr>
<td>SIMU</td>
<td>Strategic Information Management Unit</td>
</tr>
<tr>
<td>SoPs</td>
<td>Standard Operating Procedures</td>
</tr>
<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>VD</td>
<td>Venereal Disease</td>
</tr>
<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory test</td>
</tr>
<tr>
<td>VHS</td>
<td>Voluntary Health Services</td>
</tr>
<tr>
<td>VL</td>
<td>Viral Load</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Blood Bank HIV Case Follow Up Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Screening – 1st Test (EIA/EIC) at BB →</td>
</tr>
<tr>
<td>Repeat test at BB (EIA/EIC) →</td>
</tr>
<tr>
<td>Sample sent to NSACP STD Clinic/NRL →</td>
</tr>
<tr>
<td>Western Blot confirmatory testing at NRL →</td>
</tr>
<tr>
<td>If confirmed positive, the blood donor is escorted by BB PHI to NSACP STD Clinic/ NRL →</td>
</tr>
<tr>
<td>Form 1214 is filled at NSACP STD clinic &amp; forwarded to Epi unit →</td>
</tr>
<tr>
<td>Fresh sample taken &amp; WB repeat testing done at NRL →</td>
</tr>
<tr>
<td>Linked to care &amp; treatment at appropriate HIV clinic</td>
</tr>
</tbody>
</table>

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 NRI 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 counselling 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.

- People Living with HIV/AIDS: Adults and Children ≥ 3900
- Deaths in 2016: 116
- Adult Prevalence (≥15 years): 0.1%

### Reported HIV/AIDS Cases

#### National STD/AIDS Control Programme 2016

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Cumulative HIV/AIDS cases at the beginning of the quarter</th>
<th>HIV/AIDS cases reported during the quarter</th>
<th>Cumulative HIV/AIDS cases at the end of the quarter by gender</th>
<th>Cumulative AIDS cases at the end of the quarter by gender</th>
<th>Reported AIDS deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quarter</td>
<td>2508</td>
<td>68</td>
<td>2374</td>
<td>1854</td>
<td>870</td>
</tr>
<tr>
<td>2nd Quarter</td>
<td>2374</td>
<td>69</td>
<td>2432</td>
<td>1546</td>
<td>687</td>
</tr>
<tr>
<td>3rd Quarter</td>
<td>2452</td>
<td>67</td>
<td>2499</td>
<td>1856</td>
<td>903</td>
</tr>
<tr>
<td>4th Quarter</td>
<td>2499</td>
<td>69</td>
<td>2557</td>
<td>1560</td>
<td>917</td>
</tr>
</tbody>
</table>

#### Reported HIV/AIDS Cases

#### National STD/AIDS Control Programme 2017

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Cumulative HIV/AIDS cases at the beginning of the quarter</th>
<th>HIV/AIDS cases reported during the quarter</th>
<th>Cumulative HIV/AIDS cases at the end of the quarter by gender</th>
<th>Cumulative AIDS cases at the end of the quarter by gender</th>
<th>Reported AIDS deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quarter</td>
<td>2657</td>
<td>73</td>
<td>2630</td>
<td>1896</td>
<td>934</td>
</tr>
<tr>
<td>2nd Quarter</td>
<td>2452</td>
<td>78</td>
<td>2688</td>
<td>1741</td>
<td>947</td>
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<tr>
<td>3rd Quarter:</td>
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<tr>
<td>4th Quarter:</td>
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</tbody>
</table>

- Male to female ratio of reported HIV cases: 1.7:1
- Cumulative AIDS deaths reported: 431
- Cumulative AIDS-related: 81
- Cumulative foreign HIV cases reported: 1,17
- Number of HIV tests carried out during 2016: 1,123,360
- HIV death-prevalence rate for 2016: 0.23%

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Department of Health Services
Kandy, Sri Lanka
Tel: 011-2247181 Fax: 011-2247182
Website: www.aidscontrol.gov.lk
2017-01-14

**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 counselling 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 counselling 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 Venereologists 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 caseloads at all their respective health units.

Qualitative Best Practice Scorecard

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Relevance</td>
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</tr>
<tr>
<td>Process</td>
<td>Community Participation</td>
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</tr>
<tr>
<td></td>
<td>Stakeholder Collaboration</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Ethical Soundness</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Replicability</td>
<td>Moderate</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Efficiency</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Effectiveness</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Sustainability</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

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