

***External Review of the National Response to  
STI and HIV in Sri Lanka***

***19 – 27 May 2011***

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## Short forms, abbreviations, and acronyms

ART	antiretroviral treatment or antiretroviral therapy
BSS	behavioural sentinel surveillance
DAMS	Drug Abuse Monitoring System
DOTS	Directly Observed Therapy, Short Course
ECS	Elimination of Congenital Syphilis
FONGOADA	Federation of Non-Government Organizations Against Drug Abuse
IDH	Infectious Diseases Hospital
IDU	Injecting Drug User
M & E	Monitoring and Evaluation
MCH	Maternal Child Health
MO	Medical Officer
NAC	National AIDS Committee, National AIDS Commission
NAP	National AIDS Programme, a generic term for the NSACP
NDDCB	National Dangerous Drugs Control Board
NGO	nongovernmental organisation
NSACP	National STD and AIDS Control Programme
PLWHIV	People Living with HIV
PMTCT	Prevention of Mother to Child Transmission
SIM	Strategic Information Management
SIMU	Strategic Information Management Unit
STD	Sexually Transmitted Disease, and older term replaced by Sexually Transmitted Infection
STI	Sexually Transmitted Infection, a newer preferred term
TB	tuberculosis
TPHA	a type of syphilis-specific blood test
UNAIDS	Joint UN Programme on HIV/AIDS
UNGASS	United Nations General Assembly Special Session (on HIV/AIDS)
UNICEF	United Nations Children's Fund
UNODC	United National Office on Drugs and Crime
VCT	voluntary counselling and testing
VDRL	a type of generic blood test for syphilis
WFP	World Food Programme
WHO	World Health Organization

## **Executive Summary**

A team of four international consultants and two national consultants conducted an External Review of the National Response to STI and HIV in Sri Lanka from 19 through 27 May 2011. This was the first assessment of the response since 2006.

The objectives of the Review were to: assess the status and dynamics of the HIV epidemic, assess whether the expiring national strategy and response adequately address the epidemic's dynamics, assess how well the expiring strategy has been implemented, draw lessons learned to be used in the development of the next national strategic plan this year, and make recommendations for future programming. The consultants reviewed written documents provided to them by focus staff of the National AIDS and STD Control Programme and discussed the response with stakeholders and key informants from several sectors and civil society representatives participating in the national response at different levels.

In programme management, the team recommends that the National AIDS Policy and the report of this Review be used to prioritise only five key populations with key indicators and targets and costed activities for the next national strategic plan. It is recommended that the NSACP develop six programme units and the implementation mechanism of the NSACP be revised and strengthened to respond to the epidemic using clear evidence. It is recommended to implement the recommendations of the Stigma Index Report including advocating for rights of all people living with HIV and raising public knowledge about HIV. The NSACP and the NAC subcommittee on policy, ethical and legal issues should take steps to implement this recommendation.

In prevention, the Review Team recommends continuing to prevent a concentrated epidemic by focusing on activities to prevent HIV infection among only five key populations: female sex workers, men who have sex with men, drug users including injecting drug users, prisoners, and the Sri Lanka Army. For both female sex workers and men who have sex with men, reach and coverage needs to be expanded to reach members of these key populations with the most unprotected sexual partners and those in the north and the east of the country to increase equity among Tamil Sri Lankans. The drop-in centre model requires reassessment and the impact of activities to decrease harassment by police must be monitored. With respect to the risk of HIV infection among prisoners, two prison programmes should be integrated, and technical assistance sought to assess whether drug users are covered by prison activities and to increase the quality of services.

The most likely reason for the low level epidemic to progress to a concentrated one is through an epidemic of HIV among people who inject drugs. Eleven recommendations for activities to prevent HIV transmission within this population are made, including early comprehensive interventions beginning at once at the few hot spots of injecting, the development of opiate substitution therapy, the promotion of sterile injecting equipment among people who inject drugs, and promoting the leadership of the NSACP in the response to the blood-borne epidemic through nongovernmental organisations.

The only other population for which there is clear evidence of risk behaviour is the Sri Lanka Army. HIV prevention activities should be re-instated immediately using state funds. The content of HIV prevention activities in the armed forces should be improved to reflect changes in risk for soldiers in the post conflict situation and information on the risks associated with alcohol and nonsterile injecting equipment should be included. No other population-specific HIV prevention programmes are recommended. There are no

major recommendations for the prevention and treatment of sexually transmitted infections.

In the field of care, treatment, and HIV in the health care setting, twenty-seven concrete recommendations are made in the areas of blood safety, HIV counselling and testing, the prevention of mother to child transmission, the elimination of congenital syphilis, care, support and treatment for people living with HIV, strengthening community and home based care, TB/HIV collaboration, and laboratory support. Key recommendations are made in focusing on VCT for key populations at higher risk, reassessing PMTCT approaches in this low prevalence setting, reviewing testing protocols for the elimination of congenital syphilis, development of a model of continuum of care for people living with HIV, solving problems of supply chain management, assessing the universal offer of HIV testing for new tuberculosis patients, and rationalising the use of laboratory support.

The development of a strategic information management unit in the NSACP offers the opportunity to make changes in how information is collected and used. Fourteen key recommendations are made in four areas: the HIV surveillance system should be designed to detect areas and groups where an epidemic may be emerging; surveillance information should guide programme planning and implementation, strategic information management should be focused on data use and management action; and technical assistance provided and requested must be appropriate for a low prevalence epidemic in a middle income country.

## **Methods**

The overall objectives of the review were to identify the accomplishments of the national response to HIV by reviewing the activities of the National STD/AIDS Control Programme and other Government organizations and non-government organizations especially in areas related to STI and HIV prevention, care and treatment for the last five years, and to provide recommendations for the revision of strategies and interventions for the development of a new Strategic Plan for 2012 to 2016.

The specific objectives of the review were:

1. To assess the status and dynamics of the epidemic in Sri Lanka
2. To assess whether the present National Strategy and Response adequately address the epidemic's dynamics
3. To assess how well the present Strategy has been implemented
4. To draw lessons learned to be used in the development of the next Strategic Plan
5. Make recommendations for future programming.

The Review Team was supported through the evaluation process by a Core Group of a Steering Committee composed of staff of the National STD and AIDS Control Programme, other governmental stakeholders, UN system organisations, and civil society. A list of issues and questions based on the overall objectives was used by the Review Team to guide their data collection. Members of the Review Team reviewed published and unpublished written material that had been officially released by the time of the review, was presented with overviews of focus areas by key staff, discussed the programme with key stakeholders, and analysed information as a team. Sources of information are not always noted in the report.

## **Programme Management**

### **National Policy, National AIDS Committee and Strategic Planning**

The National STD AIDS Control Programme is a vertical programme of the Ministry of Health with direct responsibility to lead the national response to sexually transmitted infections and HIV/AIDS in Sri Lanka under the Deputy Director General Public Health Services in the Ministry. The post of the Deputy Director General Public Health Services is currently vacant and is overseen by a person appointed in an acting capacity. The NSACP is headed by a Director of senior administrative grade who has overall responsibility for planning and implementing the activities of the National Strategic Plan under the DDGPHS. The post of the Deputy Director of the NSACP is also currently vacant and a Consultant Venereologist of the NSACP, who is also a programme coordinator, has been appointed in an acting capacity. Another coordinator has recently retired and this technical post needs to be filled. For efficient and effective implementation of the programme it is important that immediate steps are taken to fill all vacancies of key administrative and technical posts in the NSACP.

The NSACP is the focal organisation tasked with planning and implementing the activities of the National Strategic Plan in cooperation with stakeholders. Programme implementation is carried out through a team of coordinators who head the programme units which carry out specific activities related to STI and HIV/AIDS prevention and control. The programme implementation has received direction from the National Strategic Plan 2006-2011 which was developed taking into account the external review of the national response to STI and HIV/AIDS carried out in 2006.

### **Leadership and Good Practices**

The Ministry of Health has set up two commendable systems to lead an effective government response to HIV/AIDS. These are the National AIDS Council and the National AIDS Committee. The National AIDS Council which has been set up for a specific purpose in 2007, has not met since, although it has much potential to give support to the programme as necessary as it is chaired by His Excellency the President. Its role and terms of reference have still not been identified. This was pointed in the External Review of 2006 as well.

Furthermore, government support is ensured through the National HIV /AIDS Policy which was approved by the cabinet in the week the current External Review was held. It provides a strategic framework for planning and implementing activities to guide the national response to STIs and HIV.

In addition, several good practices are observed. The NSACP website <http://www.aidscontrol.gov.lk> provides many manuals and guidelines to support capacity development of staff:

- Hospital infection control manual 2005
- User manual for STI patient information management 2008
- A guide to antiretroviral therapy 2005
- Guideline for the management of HIV in pregnancy 2008
- User manual for STI patient information management 2008
- STI case definitions for surveillance in Sri Lanka 2009
- Management of STDs in the plantation sector 2009
- Guideline for maintaining registers in STD clinics 2010
- Management of maternal & congenital syphilis 2011



Updating of these documents based on current evidence-based practices, especially publications published prior to 2008, is recommended. Guidelines for care for infants and children infected with HIV/AIDS and HIV testing and counselling guidelines should be produced. There are other educational and training materials and research publications which have been produced by the NSACP which could also be added to the NSACP website. It is necessary to ensure that these documents are used to develop the knowledge, skills and attitudes of all relevant staff members and support the national response.

### **National AIDS Committee**

The terms of reference of the National AIDS Committee, a high level policy making body to take HIV/AIDS related decisions, have been drawn up. The NAC is chaired by the Secretary of the Ministry of Health and meets once in six months. The membership is drawn from other ministerial secretaries, development partners, and civil society, including nongovernmental organisations and community-based organizations, people living with HIV/AIDS, and the private sector, providing for an effective mechanism for involvement of stakeholders. Representation and participation of community-based organisations in the NAC could be enhanced as their role and capacity in decision making appears to be low. The NSACP has not adequately used the opportunity to build effective partnerships with other relevant ministries. The NSACP should have an advocacy agenda in its work with the NAC and play a role in getting support for major issues such as harm reduction and the elimination of discrimination against people living with HIV.

The NAC is supported by six technical subcommittees on: information/education/communication; policy, legal and ethical issues; sectoral issues; prevention; HIV care, treatment, counselling, laboratory services; and strategic information management. It is necessary to ensure that these subcommittees play a more technical role and that they are aligned with the priorities of the National Strategic Plan and the proposed functional areas of the NSACP. Six programme coordinators attached to the NSACP are ex officio secretaries of the sub committees, and this dual role as well as the presence of the Director of the NSACP on the NAC provide feedback to the NSACP management for implementing the recommendations of the NAC and vice versa. However, the matters discussed and issues related to the NAC should be discussed as an agenda item of the meeting of the senior management team of the NSACP to formalize the process and ensure implementation. The meetings of the NAC which had not been held regularly in the past have been held more regularly in the past year and should be continued.

### **National Aids Policy**

The National HIV /AIDS Policy was ratified by the cabinet of ministers in the week this External Review was held. It lays emphasis on two major objectives which have been identified as being within the framework of the Millennium Development Goals, bearing in mind that the Target 7 of the Millennium Development Goal 6 is on HIV/AIDS.

The two strategic objectives, to be achieved through 12 national priority areas and strategies, are:

- 1) to prevent HIV and other sexually transmitted infections in Sri Lanka through effective strategies aimed at reducing sexual transmission, mother to child transmission and transmission through blood and blood products and;

- 2) to improve the quality of life of people living with / affected by HIV/AIDS minimizing stigma and discrimination and providing quality health care.

The National AIDS Policy states: “the policy objectives will be achieved through a national strategic plan with the participation of the government, nongovernmental and international organizations, the private sector and civil society”. The 12 strategies spelt out are: multi sectoral approach; promotion of safe and responsible behaviours; surveillance, monitoring and evaluation; HIV testing; counselling; care and treatment of HIV/AIDS; prevention of mother to child transmission; prevention of transmission through blood and blood products; safety in health care settings; prevention and control of other sexually transmitted infections; addressing human rights issues and; HIV/AIDS interventions in the world of work. Policy statements in relation to the key strategic areas have also been drawn up.

The National AIDS Policy indicates in its name that it is an HIV/AIDS policy, although one of its strategies does explicitly refer to prevention and control of other sexually transmitted infections and hence the shortcoming evident in the title of the policy in only referring to HIV/AIDS has been overcome. Although both the strategic objective 1 and strategy 2 ‘promotion of safe and responsible behaviours’ do not explicitly identify the target groups for cost effective interventions, for instance key populations at higher risk or most at risk populations, the policy statement under strategy 2 notes that the Government of Sri Lanka supports provision of preventive education and clinical services to those at high risk, including sex workers, men having sex with men, and injecting drug users.

### **Recommendation 1**

The External Review team recommends that the National HIV/AIDS Policy and the report of the current External Review of the National Response to STI and HIV in Sri Lanka be used to develop the next National Strategic Plan (2012-16) through a process of wide consultation.

### **National HIV/AIDS Strategic Plan 2007-11 (NSP)**

The Government of Sri Lanka, through the National HIV/AIDS Strategic Plan 2007-11, has provided direction and leadership to the national HIV/AIDS response. Two other international strategies that have guided the formulation of the objectives of the NSP were Millennium Development Goal 6 to halt and reverse the spread of HIV/AIDS and the targets of the 2001 United Nations General Assembly Sessions Declaration of Commitment on AIDS. The National Strategic Plan guides and gives a common focus to the government sectors that contribute to the HIV/AIDS response, to civil society and to development partners.

Thus the National AIDS Committee, the National AIDS Policy and the National Strategic Plan strengthen programme activities. Regular External Reviews of the national response held in 1993, 2000, 2006 and the current External Review in 2011 are good practice conducive for improving NSACP programming.

### **Programme Management**

Six strategic objectives had been drawn up under the National Strategic Plan to guide and focus programme implementation. In drafting the Plan, the NSACP states that the major gaps in the response identified during the external review of 2006 and four guiding principles have been used. These principles are: the need for evidence to formulate the

response; respect for human rights; recognition of gender inequalities in HIV control; and the need for community participation and involvement of people with HIV. The programme has partially focused on three of the issues though little attention has been paid to gender inequalities.

The strategic objectives of the NSP 2006-2011, to achieve the national goals are:

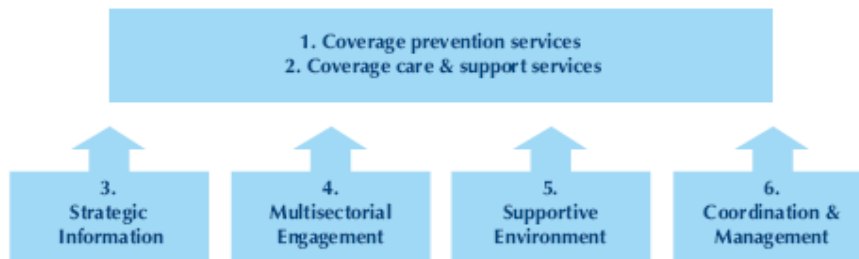
1. Increased coverage and effectiveness of prevention interventions
2. Increase coverage and effectiveness of care, support and treatment interventions

Other objectives to support the above core strategies are:

3. Improved generation and use of information for planning and policy development.
4. Increase involvement of relevant sectors and levels of government in the response
5. More supportive public policy and legal environment for HIV/AIDS control
6. Improved management and coordination of the response

This is represented diagrammatically in Figure 1 below:

Figure 1: Objectives of the National Strategic Plan 2006-11



During the External Review it was apparent that the strategic objectives of the NSP have not been explicitly used for guiding programme implementation. Programme implementation is carried out by the coordinators in charge of programme units/areas. Regular meetings of the coordinators who form the senior management team of the NSACP are now being held, but appear to lack strategic direction and focus. The documentation of meetings including agendas, Minutes, notes, and follow up activities should clearly reflect programme activities supporting the strategic objectives and outcomes. The regular monitoring of operational activities need to be recorded. An annual report of the NSACP on implementation of the National Strategic Plan would provide an effective and efficient mechanism for ensuring the progressive implementation of the strategic objectives and of recording them for wider circulation to all stakeholders.

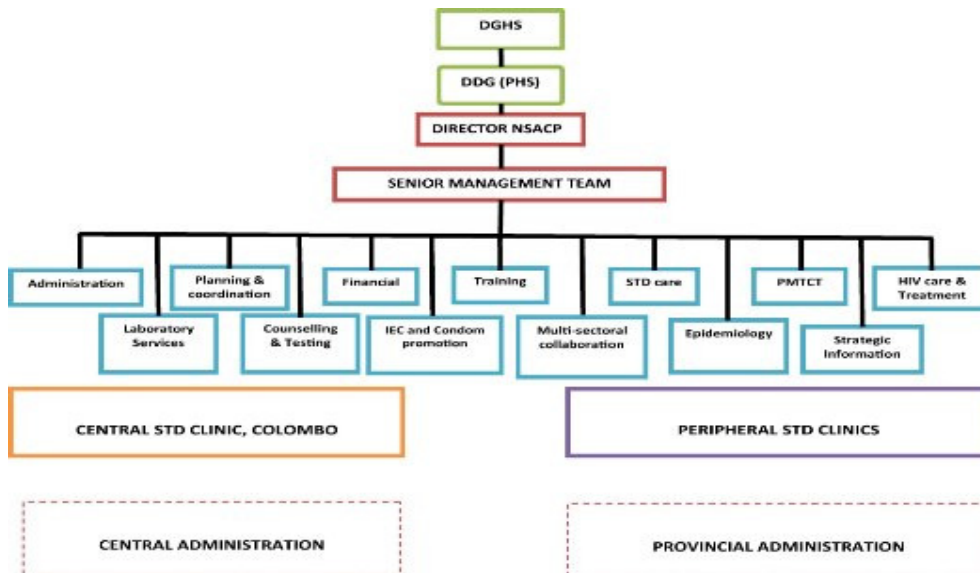
The development and establishment of strategic targets and indicators to monitor and evaluate each strategic activity has not been systematic. Thus it appears that the programme has continued to be implemented by coordinators in relative isolation in 'silos' without sharing of progress and feedback for collective decision making for improvement.

It also appears that the programmes that are being funded from external sources are not discussed, coordinated nor monitored by the senior management team. These programmes support the operational activities of the NSACP and must be included in the responsibilities of senior management team members. Discussions should also focus on future sustainability and methods to achieve sustainability.

The organizational structure for programme management

The current organizational structure of the NSACP for programme management is shown in Figure 2. The Director, in consultation with the senior management team, provides leadership and technical guidance to implement the activities spelt out in the National Strategic Plan. The programme units have increased from the eight in place at the time of the 2006 review to thirteen units currently.

**Figure 2: Organizational structure of the NSACP**



The senior management team is composed of the coordinators of the thirteen administrative units.

The specific terms of reference for each unit is available on the website. An operational mechanism for the senior management team for effective planning, implementing, monitoring and evaluating the programmes and activities has not been developed. There is a need to use data collected by the strategic information unit and meaningfully collate it for informed decision making. Each unit is headed by a coordinator and appears to implement its own programme. Coordination and collective responsibility for implementing programmes has to be established. The meetings of the senior management team under the leadership of the Director could be utilized effectively to monitor and evaluate the implementation taking into consideration the terms of reference and policies. The strategic information / monitoring and evaluation unit recommended in the external review in 2006 was established in 2008 and is currently one of the programme units, the strategic information management unit.

It is also necessary to monitor progress or lack of progress using indicators and targets with the support of the strategic information management unit. At the moment the indicators that are used are the UNGASS indicators. Although the Universal Access Report in 2006 also identified forty-five national targets to monitor progress towards the achievement of universal access to HIV/AIDS services over the next four years in Sri Lanka up to 2010, no other reference is made in this report to the core set of national indicators.

Target 7 of Millennium Development Goal 6 to halt and reverse the spread of HIV/AIDS is set to guide the formulation of the objectives of the NSP. Sri Lanka is not near to achieving the targets set. The only indicator being used to monitor MDG Goal 6

target 7 is the percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS. This falls very short of the expected targets for all districts surveyed.

The National Strategic Plan has included nineteen national core indicators which is a commendable. It is imperative that the NSACP with the stakeholders identify targets for the indicators to monitor the programme areas as well as determine the method of assessment. The lack of focus on clear relevant strategic indicators results in an inability to show progress in achieving the stated objectives and adversely affects the national response. At least once a year the senior management team with the Deputy Director General Public Health Services should review progress towards achievement of objectives and take appropriate steps to overcome constraints.

The distribution of the implementation activities over thirteen units may be one reason for the lack of focus on strategic indicators and targets. There are too many programme units without any rationale. They appear to be added on as and when issues emerge.

At the time of the External Review in 2006 there had been eight programme units under the Director, and the review report proposed that a the functional task analysis, also recommended by the World Bank March 2006 review, be completed to reflect new priorities and work areas. The functional task analysis was carried out in 2008 and the report has been submitted to the Ministry of Health. It identified six key functional units, terms of reference for each unit, and job descriptions of the unit coordinators. This report has not been utilized adequately to improve the structure and function of the NSACP.

Administration has been improved as proposed in the External Review of 2006 and the functional task analysis. The establishment of administration, financial, and planning & coordination units is a step forward. The External Review team members were of the opinion that all three should be directly under the Director. The treatment, care, and support, PMTCT, and counselling should be under one programme coordinator with clinical expertise. The functional task analysis is a resource to be used in drawing up the term of reference of the programme units and drawing up the job functions of the staff assigned to each unit. The job descriptions and the skill mix required for effective functioning of the NSACP should be re-evaluated.

Multi sectoral coordination and activities already being implemented are best carried out at the level of the NAC under the sectoral technical committee, as these activities are the responsibilities of the sectors and need to be devolved to these particular sectors for sustainable implementation with technical support provided by the coordinator. The coordinator could report to the NSACP at the meeting of the senior management team under an agenda item on NAC sub committee activities and taken up by any of the units. It is also relevant to note that one of the terms of reference of the unit on programme planning and coordination, is 'To coordinate and work in partnership with public, private, civil society organizations, and development partners at local, national and international level' addresses this issue.

## **Recommendation 2**

It is recommended that the programme units and the implementation mechanism of the NSACP be strengthened to respond to the current and emerging STI and HIV, risk behaviours and key populations using participatory, evidence-based and ethical approaches. The terms of reference should be drawn up for the senior management team and terms of reference of all programmes and units reassessed. The job descriptions of coordinators and staff of the units and the optimal skill mix should be identified based on the available evidence and reflected in the new National Strategic Plan 2012-2016. The

activities should be guided by the strategic plan, and key indicators and targets should be drawn up to guide and monitor the progress of the national response.

### **Recommendation 3**

It is recommended that the NSACP programme units be restructured as follows to better reflect the national strategy and strengthen the implementation through a more focused approach: 1. administration, financial management and procurement; 2. sexually transmitted infection control; 3. HIV prevention for most at risk populations; 4. laboratory support; 5. treatment, care, counselling, testing, prevention of mother to child transmission and elimination of congenital syphilis; 6. strategic information management, planning, 6. strategic information management, planning, capacity development and epidemiology.

### **Peripheral STI and HIV/AIDS health care services**

Service delivery for sexually transmitted infections and HIV is undertaken through the central STI clinic in Colombo and STI clinics which also provide antiretroviral therapy. These are under the NSACP. There is also a network of thirty peripheral sexually transmitted infection clinics and branch sexually transmitted infection clinics which are under the purview of the provincial health services. The clinics are staffed by grade medical officers and are located in selected districts in provincial, general or base hospitals. The clinics are under the administrative and technical supervision of the Regional Director of Health services, even though they are located in hospital premises and implement NSACP activities. The services provided are sexually transmitted infection care services, laboratory services for diagnosis of some STIs, screening services for STIs, and preventive services which includes educational programmes, surveillance, counselling and outreach activities. The community programmes are conducted by the Public Health Inspector and the Public Health Nursing Sister or a nursing officer.

The External Review of 2006 identified the need to have functional peripheral AIDS committees. Although provincial and district AIDS committees did function earlier they do not do so now. It may be necessary to have these committees functioning only in areas where is a need to scale up activities and to obtain the support of other parties such as the police, the NDDCB, the prisons, and the new compulsory drug treatment centres.

The allocation of resources including funds to the devolved STI programme could also be streamlined through increasing the membership and clearly identifying the membership functions of AIDS committees. These committees could also be the entry point for the NSACP to provide technical assistance to support programme activities.

Other public health programmes are monitored, evaluated and supervised, and feedback is provided to the medical officers of health to improve field based preventive activities. Though the Medical Officer (STI) is under the same administrative system, the supervision, monitoring and evaluation of STI services is non-existent. In view of the largely preventive health component in the STI services, and the existence of an already functional effective system of supervision, monitoring and evaluation under the Regional Director of Health Services, the external review team recommends that the STI services be under the Regional Director of Health Services. An additional Medical Officer or Consultant with public health expertise should be appointed to be in charge of this preventive component under the Regional Director of Health Services. The NSACP should identify districts for such postings based on the needs of the district. Criteria could include the size of populations at risk. This would also link the STI programme formally with the public health and preventive sector in the periphery and establish links with the Regional Epidemiologist, and the Medical Officer (Maternal and Child Health). The

links with the community based organisations, nongovernmental organisations and other stakeholders could also be strengthened through an active and effective preventive programme. This would also provide more time for the Medical Officer (STI) to provide quality care and counselling.

A second Medical Officer (STI) could also be appointed to be in charge of the curative services which could be under the direct supervision of the hospital director, reporting the RDHS and the NSACP. STI laboratory services should be integrated into a common facility in the hospital. The data generated through both the curative and preventive sectors including surveillance data should be sent to the Regional Director of Health Services in addition to the Strategic Information Management Unit of the NSACP.

During the field visit to the Polonnaruwa STI clinic it was evident that the Medical Officer in charge had not undergone any training in the NSACP programme of activities, having been transferred in from the tuberculosis control programme several months ago. Nor did he seem to have benefited from the manuals and guidelines that have been published. 'STD case management workbook, a syndromic approach' could be used by new Medical Officers (STI) until they are trained. This workbook is ten years old and should be updated to include more current evidence based practice. It is clear that the training of Medical Officers appointed to peripheral STI clinics is hampered by their reluctance to leave their workplaces to attend training in Colombo. The Ministry of Health at central level should ensure that the peripheral health services under the Regional Director of Health Services mandate training of the medical officers (STI) before they assume office. Medical officers should be trained before they assume office.

### **Stigma and discrimination**

Treatment, care, support and counselling of people attending clinical services and people living with HIV is an important programme strategy of the NSACP. It was evident from the discussion held with the people living with HIV and civil society organizations representing them that they faced many issues related to seeking and receiving treatment at the state sector health care institutions and facilities. This was a major concern.

Many anecdotes were heard concerning their experiences in accessing services, specifically being transferred out to Infectious Diseases Hospital on being informed or becoming aware of their HIV status, of indifferent, discriminatory treatment and being discriminated against by the staff of health facilities.

These are corroborated in the recent Stigma Index Report (People Living with Stigma Index, Sri Lanka 2010). The respondents to the stigma index, members of three networks of HIV positive people, have reported poor knowledge of their rights, reluctance to disclose their status to family friends, lack of social support and total dependency on the health sector for treatment. Over seventy per cent of respondents had concerns that the government may not continue providing antiretroviral therapy free of charge. Constructive discussions with health care providers regarding HIV related treatment options were reported only by only forty-nine per cent of respondents. The fear of marginalization at village and household level, verbal insults, assaults, threats, harassment and loss of jobs and income were reported by people living with HIV at the meetings the review team had with them and their networks. The PLHIV networks also reported of a case of police harassment on a positive network member holding condoms and antiretroviral drugs who was detained in the police station until the member revealed the HIV status.

Among the reasons that were thought to lead to the stigma and discrimination and failure to be treated with dignity and respect were: poor knowledge, especially among the

general population, policy makers, health professionals and legal profession. Lack of awareness among health personnel of the availability of post exposure prophylaxis and failure to practice universal precautions consistently, have led to fear of infection. People living with HIV highlighted their right to equality of treatment, with respect and dignity, in any government health care facility for any health problem. This was important as people living with HIV had little power and often had low socioeconomic status so they had no way of seeking treatment in the private health care sector. These factors could drive the people living with HIV and those at risk underground which would contribute to increasing the epidemic potential in Sri Lanka. Fear of stigma and discrimination, and failure of health personnel to respect patient confidentiality further exacerbates the reluctance to seek care. These adversely affect both the expansion of care and the quality of care in health settings both of which are important to ensure continuity of antiretroviral treatment.

The External Review of 2006 recommended that the issues of stigma and discrimination be addressed. The NSACP has so far not taken up stigma and discrimination as a specific issue either in the National AIDS Committee or in the NSACP programme implementation. The current national strategic plan has identified the respect for human rights as one of the principles guiding the national HIV response. The National AIDS Policy has explicitly included stigma and discrimination and human rights.

The Universal Access Report in 2006 stated that, 'In order to achieve universal access to HIV/AIDS services over the next four years, Sri Lanka will aim to make several key policy changes through a sustained advocacy effort. The primary goal will be to reduce the stigma of HIV and to change attitudes among the general public, health personnel, and policy makers in order to ensure that people living with HIV/AIDS are treated with respect and receive the services they need in a confidential, respectful manner'.

It was also evident during the review that the engagement of people living with HIV in planning and decision making through the Sub Committees of the National AIDS Committee is not effective and the capacity of networks to support greater involvement of people living with or affected by HIV is low. The language for conducting meetings should be inclusive so the full participation of people living with HIV is ensured. Simultaneous translation should be the norm. The strength of the stigma index is that it provides information for policy change and programme interventions as well as to improve fulfillment of human rights for people living with HIV.

#### **Recommendation 4**

While endorsing the recommendations of the Stigma Index report, it is recommended to implement the recommendations, including advocating for rights of all people living with HIV, raising public knowledge about HIV and AIDS. The programme units of the NSACP such as training and capacity building and the NAC subcommittee on policy, ethical and legal issues should take steps to implement this recommendation within the overall framework of the national response.

#### **Prevention**

Since the Review of the National Response to Sexually Transmitted Infections and HIV/AIDS in Sri Lanka in 2006, the response to the epidemic in the nation has been guided by the National HIV and AIDS Strategic Plan 2007 – 2011. The following review of progress in HIV prevention follows the outline of the Plan. The strategic plan has no attached costed operational plan to guide implementation, has no targets to guide monitoring and evaluation, and there are no criteria to assess the quality of services.



**Major objective 1) Increased scale and quality of comprehensive interventions for most at risk populations: female sex workers and clients, men who have sex with men, injecting drug users and drug users, and prisoners.**

The only key populations that are likely to experience HIV epidemics so that the current low level epidemic evolves into a concentrated epidemic are female sex workers, men who have sex with men, and injecting drug users. The strategic plan calls for nongovernmental organisations to expand and start behaviour change activities for these three most at risk populations, for the prison department to expand services to inmates including the three populations, and for the Ministry of Health to expand services for female sex workers and men who have sex with men. The following section briefly reviews the available epidemiologic data and status of interventions for each group.

**Female sex workers**

There are limited data on the size of key populations at higher risk, though detailed geographic mapping of sex workers was conducted in four districts in 2010. These data were then extrapolated to develop a national estimate of 35,000 to 47,000 women who sell sex. This range was accepted by the prevention subcommittee of the NAC. Given the estimated size of the female sex worker population and its implications for the size of the male client population, the potential for the epidemic to spread among those engaging in commercial sex is large. HIV seroprevalence from the sentinel surveillance sites for female sex workers remains almost zero, as only thirteen infections have been detected in over fifteen years of surveillance. The last behavioural surveillance survey among female sex workers was conducted in 2006/7 and demonstrates the diversity of risk behaviour by place of solicitation. The survey data indicate that many women working in massage parlours and karaoke bars report they are not selling sex. Those who did sell sex had on average two to three paying clients on the last day worked. Consistent condom use (every time or almost every time) with clients was greater than 80% as reported by brothel, massage parlour, and street based sex workers, but lower among those working from karaoke bars (66%) and casinos (48%).

Very few respondents among the female sex workers reported that it was difficult to get their clients to use condoms. A third of street based sex workers report being harassed by police in the last year for carrying condoms. In terms of drug use, 7% of female sex workers had ever used heroin and 10% had used some type of drug in the last 12 months. A very small percentage (2/1008) ever injected drugs, both respondents reported having injected in the last 12 months. However, 50% of estimated 200 female drug users in government drug treatment centres are reported to be sex workers. To be effective, prevention interventions must take this diversity into account, and to be cost-effective they must focus on the sex workers with the greatest risk and vulnerability.

There has been a concerted and largely successful effort in the last two years to begin to scale up HIV prevention activities among female sex workers. Prevention activities have been expanded to include outreach for peer education, condom distribution, referral to governmental sexually transmitted infection clinics for STI screening and HIV voluntary counselling and testing, and the operation of drop in centres. The local community-based organisation implementing these activities in Colombo and Gampaha and directing the work of smaller organisations that implement them in seven other districts is the Community Strength Development Foundation. Over 3,500 sex workers in Colombo and the eight districts are currently receiving services and the number is increasing. Programme staff estimate about half of beneficiaries are widows and a small number of sex workers use drugs though there are no reports of injecting drugs.

There has also been an effort through education of the police to decrease the harassment and arbitrary arrests of sex workers under the vagrancy law but there is no defined metric and no monitoring of arrests and convictions of sex workers for vagrancy occurs. Sex workers describe continuing police harassment in their daily activities and when they are waiting for clients in public places. Sex workers also complain that the numbers of condoms that are distributed free of charge are not enough for their needs. Women who work in fixed venues can increase their supply from the operators of the venues but women who work outside cannot readily buy more condoms. Community based organisations representatives also noted the low quality of condoms and stockouts so that they had to buy condoms or do without them.

### **Recommendations:**

1) The financial resources from the Global Fund Round 9 grant are planned to be used to continue to increase reach and coverage in almost all of the districts that are already part of the programme. As the small nongovernmental organisations develop experience in implementation, governmental funding and supplemental funding should be sought to expand both reach and coverage. The activities should be targeted to reach the women who have the most unprotected partners and the implementation of activities should be made flexible enough to be able to reach these women. The supply of condoms should be increased so that each and every sex worker has enough condoms for protected sex with all her clients. This will require use of the available behavioural and size estimation data to estimate need and to develop efficient mechanisms for distributing condoms consistently.

2) There are at present no services available for female sex workers in the north and east of the country. Consideration should be given to initiating activities in these areas to increase equity in services for Tamil female sex workers.

3) Although drop-in centres are part of the minimum package of services, the number of women who use the drop-in centre services appears to be low. The number is not monitored, there is no target, and the long term financial viability of these relatively expensive facilities is in doubt. Cofunding should be sought or the drop in centres phased out or decreased in size. Drop-in centres should undergo a cost-effectiveness or cost per client assessment in order to determine whether the costs of running them add enough value to the programme for them to continue.

4) The impact of activities to decrease harassment by the police must be monitored. If harassment and arrests do not decline then the strategy of educating police should be abandoned and new strategies initiated.

### **Men who have sex with men**

Epidemiologic data for men who have sex with men is more limited. This group was included in the 2010 mapping effort. The resulting national estimate extrapolated from the results of four mapped districts was 24,000 to 37,000 active men who have sex with men. Again, this figure was endorsed by the members of the prevention subcommittee of the NAC. Men who had oral or anal sex with another man in the previous year were included as a group in the 2009 round of HIV sentinel surveillance. Samples were collected in four sites, the Western, Central, Southern, and North Central provinces, and in the Western province 2 out of 108 samples were positive. It is difficult to generalize this prevalence to the broader population of men who have sex with men given the non representative sampling through the help of nongovernmental organisations. However, the 2006/7 BSS reported relatively high numbers of partners among MSM active in the

last 12 months. On average, respondents had 1.4 regular male partners and almost 11 non-regular male partners in the previous year. Of those having anal sex with another man, the average number of partners for insertive anal sex in the last year was 11.7 and for receptive anal intercourse 12.5. Consistent condom use during anal sex was 50% with non-regular partners and 32% with regular partners. Many respondents also had sex with women, suggesting the additional risk of transmission: 15% reported having a regular female partner in the past year, and 12% had non-regular female partners. Only a small percentage (5%) of men who have sex with men in the survey reported ever trying heroin. Beach boys constitute another group whom are known to engage in high risk behaviour including anal sex with men. The sample of beach boys working at resorts, primarily on the western coast of the country, in the 2006/7 BSS found that 45% of respondents had anal sex with men in the last year. Among those having anal sex in the last year, the average number of male partners with whom they had insertive anal sex was 4.8; and for receptive anal sex the average was 7.1 partners. Beach boys are an important population group as they have sex with both males and females and have both local and foreign partners. The potential for overlap with the drug use networks as 18% of beach boys in the sample have ever tried heroin.

There has been a similar effort in the last two years to begin to scale up HIV prevention activities among men who have sex with men. Prevention activities have been expanded to include outreach for peer education, condom distribution, referral to governmental sexually transmitted infection clinics for STI screening and HIV voluntary counselling and testing, and the operation of drop in centres. The local nongovernmental organisation implementing these activities in Colombo and other areas is Companions on a Journey. The number of men who have sex with men receiving services in Colombo is increasing. Several peer educators report many kinds of drugs being used among men who have sex with men and injecting of heroin with shared injecting equipment has been directly observed by them.

Sex between men is a criminal act in Sri Lanka. Although there are no reported arrests under the sodomy law, Section 365a of the Criminal Code, there are convictions for vagrancy, reports of short term detention of men, and anecdotal accounts of police beatings of both men who have sex with men and male peer educators who work with them. Harassment of peer educators for men who have sex with men, especially feminised nachis, commonly takes place in the community.

## **Recommendations**

1) The recommendations for activities for men who have sex with men are similar to those for female sex workers. Financial resources from the Global Fund grant will be used to continue to increase reach and coverage in almost all of the districts that are already covered with activities for men who have sex with men. As the community-based organisation develops experience in implementation and demonstrates that it can deliver programmes with high coverage, governmental funding and supplemental funding should be sought to expand both reach and coverage. The activities should be targeted to reach the men who have the most unprotected partners and the implementation of activities should be made flexible enough to be able to reach these men.

2) There are at present no services available for men who have sex with men in the north and east of the country. Consideration should be given to initiating activities in these areas to increase equity in services for Tamil men who have sex with men.

3) Although drop in centres are part of the minimum package of services, the number of men who use the drop in centre services appears to be low. The number is not monitored,

there is no target, and the long term financial viability of these relatively expensive facilities is in doubt. Cofunding should be sought or the drop in centres phased out or decreased in size. Drop-in centres should undergo a cost-effectiveness or cost per client assessment in order to determine whether the costs of running them add enough value to the programme for them to continue.

4) The impact of activities to decrease harassment by the police must be monitored. If harassment and arrests do not decline then the strategy of educating police should be abandoned and new strategies initiated. Police education activities are currently undertaken by the multisectoral unit of the NSACP instead of the unit in charge of prevention for key populations and sensitivity training of police is not sufficient to change their behaviour. In order to improve decrease harassment and arrests it may be necessary for the NSACP unit in charge of prevention among key populations to take responsibility for police activities.

### **Prisoners**

Prisoners are not at risk of acquiring and transmitting HIV solely because they are incarcerated. The intent of HIV prevention activities in Sri Lankan prisons is to provide services for female sex workers who are imprisoned on vagrancy or soliciting charges and who will continue sex work on their discharge, to reach male prisoners who have sex with other men while in prison and who may continue same sex activities on discharge, and to reach people who use drugs with harm minimisation messages while they are relatively abstinent from drug use in prison. As drug dependence is a chronic relapsing disease that is not treated in prison, almost all imprisoned people with drug dependence will relapse on discharge. Prisoners who are not members of these three populations may also benefit from HIV prevention education programmes after they are discharged.

There are currently an estimated thirty thousand prisoners in the country and about one third have been convicted of possession or trafficking of drugs. It is unknown how many prisoners are drug dependent or are people who use drugs, but it is estimated that half of prisoners convicted of drug related crimes are users, suggesting there are potentially five thousand drug users currently imprisoned. There are no behavioural surveys of prison populations yet available. An HIV prevalence study among almost one thousand prisoners in Welikada prison conducted in 2011 found no subjects to be HIV infected.

HIV prevention activities in prisons largely came to a halt when the World Bank grant activities ended in 2008. A situational analysis on drug use and HIV in prisons was completed in that year. Activities that may directly benefit prisoners have begun again only this year with training activities for prison staff funded through a UNODC funded prison project. Project plans call for education on HIV, voluntary counselling and testing, and access to antiretroviral treatment of people living with HIV. There is no evidence that this project was planned in coordination with the planned activities resourced from the Global Fund Round 9 grant. These funds will be used over the next two to five years to implement a package of services that includes a peer-led HIV education programme with both sexual health and harm reduction components based on the 'Inside Out' curriculum developed by WHO, and the provision of sexually transmitted infection services.

The National Dangerous Drugs Control Board and the National STD AIDS Control Programme are current unaware of one another's activities in prisons and there is no mechanism for coordination.

A new practice is currently being rolled out by the Prisons Directorate. Prisoners who are thought to be suffering from the disease of drug dependence will be assessed by a doctor to determine if they are drug dependent and those that are diagnosed will be brought before a magistrate who will change their place of imprisonment to a compulsory drug treatment centre run by the same institution. There they will perform agricultural labour, receive education, and be allowed recreation. Current prisons are being renovated to accommodate them. Firm population figures are not yet available but almost two thousand beds are currently ready for these detainees.

Rehabilitation means “to restore to health or normal life by training and therapy after imprisonment, addiction, or illness.” The centres are not designed for post-imprisonment rehabilitation so can only be described as compulsory drug treatment centres. Compulsory drug treatment centres are not recommended for treatment of drug dependence by UNAIDS, WHO, the Global Fund, the United Nations Special Rapporteur on the Right to Health, the World Medical Association, and the International Federation of Health and Human Rights Organizations. They are ineffective in treating the disease of drug dependence and abuse the rights of people with this disease. The Global Fund has recently reviewed all of their grants to ensure that no funds are used for programmes in compulsory drug treatment centres.

### **Recommendations**

1) It is recommended that the activities of the UNODC resourced prison project and the Global Fund resourced prison activities are consolidated to an integrated programme of HIV prevention for people in detention.

2) The Country Coordination Mechanism Chair and the governmental Principal Recipient should seek immediate clarification from the Global Fund secretariat whether Global Fund resources can be used for activities in these compulsory drug treatment centres.

3) As UNODC no longer has staff in Sri Lanka, it is a matter of urgency to engage high quality technical support for the UNODC funded activities in prisons. An UNODC advocacy strategy document also lists the development of compulsory drug treatment centres as an opportunity for advocacy but the External Review team does not recommend taking up this opportunity. It is recommended that all prison HIV prevention activities include harm minimisation education for all drug users, as some of them are reported to inject while in prison and may inject drugs on discharge; the number of users who inject drugs on discharge should not influence the content of the education programme.

### **Drug Use**

The contribution of injecting drug users to the HIV epidemic in Sri Lanka has been neglected, due to the belief among stakeholders that only a very small number, 0.2 to 2%, of the estimated 30,000 to 240,000 opiate drug users, were injectors. These data are based on a Situation Response Analysis conducted in 2006. There is now evidence that the current situation is different and that there is a larger population of injecting drug users in the country. A 2010 unpublished study conducted by the National Dangerous Drugs Control Board estimates there are approximately 3,000 injecting drug users in the country, a large proportion of whom are in Colombo. The definition for ‘injecting drug user’ in the study was those who had injected in the last six months, meaning that an even larger number of drug users may be ever injectors or occasional injectors. The study noted that 93.5% of respondents had transitioned to injection after oral use, while the

remaining portion began using drugs directly through injection. In this population, the most common substances used were brown sugar heroin, morphine, and pentazocine, with a few injectors reporting occasional benzodiazapine use. There is a perception that the results of the study may not ever be accepted as official, and without the publication of details of the methodology, it is difficult to assess whether this number overestimates or underestimates the epidemic potential through injecting drug users in the country. Given the experience of other countries in the region that have experienced the rapid spread of HIV among injecting drug users and recent reports of the AIDS deaths of three people with a history of injecting drug use, even the low end estimates of injectors concentrated in urban areas such as Colombo warrant the immediate initiation of needle and syringe programmes and other harm reduction measures.

Beyond estimating the populations size of injecting drug users, Sri Lanka must monitor the transition from oral and inhalation methods to injecting methods among drug users. From an intervention perspective, the transition period from any other method to injecting is the period when drug users are most vulnerable to HIV as they are not likely to be informed on safe practices relating to injecting. Transitions can be affected by a number of environmental factors that can be assessed periodically, including: whether the cost of heroin is increasing, the impurity of street based heroin, and the efficiency of injecting. Other data cited in the NDDCB Handbook of Drug Abuse Information (2010) suggest that the proportion of drug users who inject has grown over time, and that the proportion of drug users who are using pharmaceutical drugs is growing. A factor to reduce the risk of injecting drugs is the availability and users' knowledge about synthetic substitutes for heroin such as methadone and buprenorphine which can be taken orally. Substitution drugs reduce craving, and injectors say that it is desire for an immediate fix that often pushes them into situations where they share needles.

Sexual risk behaviour among drug users is another important aspect of the drug-related epidemic to characterize. There are reports of female sex workers and men who have sex with men who have drug use or injection drug use history. Risk overlap among injecting drug and sexual networks is determined by the proportion of drug users who buy sex or have anal sex with men. The 2006/7 BSS reported that approximately 15% of drug users paid for sex in the last year and 27% had sex with a non-regular partner. Similarly, consistent condom use in this group was less than 5% with non-regular or commercial sex partners. In the same survey 6% of drug users reported having anal sex with a man in the last year.

Though injecting drug users are recognized as a most at risk population in the current National Strategic Plan, it is difficult to estimate reach and coverage of services for both drug users and injecting drug users due to an absence of data.

The drug use response during the review period has been led by NDDCB and supported by the United Nations. No resources have been allocated by NSACP for activities related to drug use. This is also evident in the UN supported projects. NSCAP has very little information on the drug use and injecting drug use situation and all NSACP documents cite NDDCB data. Sharing of strategic information has been limited to reports like UNGASS or recently for setting up sentinel surveillance sites.

In Sri Lanka, the Ministry of Public Security, Law and Order has the overall responsibility for supply and demand reduction activities. In 1984, as drug use increased, the government created the National Dangerous Drugs Control Board under the Ministry of Defence. The NDDCB is in charge of overseeing and coordinating all drug control activities of law enforcement agencies, prevention, treatment and rehabilitation through a number of agencies.

The National Policy for Prevention and Control of Drug Abuse, revised in June 2005, consists of the following strategies: effective monitoring of imports, exports, distribution of drugs and precursor chemicals under control; effective enforcement of law against production, smuggling and trafficking of illicit drugs and supporting regional and international initiatives on prevention of drug use. According to this policy, the Government will adopt a broader approach to drug use control within the context of human development, focusing particularly on the links between drug use, poverty reduction, crime prevention and improving health. In such a strategy, supply control and demand reduction will reinforce each other. Prevention and treatment as part of demand reduction is expected to conform to the new law of Compulsory Treatment (Drug Dependant Persons Act, 2007). The NDDCB currently has drug treatment centers which provide free residential three month abstinence based treatment programmes. Treatment is also provided on cost sharing basis at one centre located in Nittambuwa. A new treatment centre for drug users under 20 years of age has been started by NDDCB in Raththanapitiya. Government facilities managed by NDDCB accounted for 68.5% of the total drug dependence treatment admissions in 2005 and this percentage has steadily risen as these facilities accounted for 80% treatment admissions in 2010. Abstinence based treatment models should be discontinued and harm reduction programmes should be initiated.

The implementation of the Drug Dependent Persons Act, 2007 has been initiated by starting four compulsory drug treatment centers beginning in January 2011. These are located in Weeravilla (750 beds), Pallekale (650 beds), Thaldena (350 beds) and Kalutara (200 beds for female drug users). The services to be provided at the abstinence based treatment centres include: counselling, literacy, and agricultural work. Only drug users will be detained in these centers. This is likely to result in a shift of drug users currently in prison to the compulsory drug treatment centers. NSCAP should ask the National AIDS Council to review the current legal and policy framework to advocate for discontinuation of compulsory drug treatment centres by NDDCB. The drug users detained in compulsory drug treatment centres are not likely to be covered by the Global Fund Round 9 HIV prevention interventions being implemented across 38 prisons as the Global Fund has reviewed its investments in these centres worldwide and has noted that all compulsory drug detention centres should be closed and replaced by drug treatment facilities that are effective and that conform to ethical standards and human rights norms.

In 1986 the NDDCB set up Federation of Non-Government Organizations Against Drug Abuse (FONGOADA) as an umbrella group for nongovernmental organisations working with drug users in Sri Lanka. The forty-eight NGOs provide outreach, community awareness programmes, and abstinence based treatment for drug users in addition to referrals to the five NDDCB treatment centers. Currently the services offered by nongovernmental organisations and NDDCB to drug users include treatment and rehabilitation services which are abstinence oriented and include therapeutic community models, residential programmes with individual and group counselling, and religion based services. Drug use prevention activities among drug users have been expanded to include outreach through peer education. Abstinence based models do not provide optimal treatment and there is a reported relapse rate of 96%. These treatment models should be discontinued. Drug use is a chronic relapsing health disorder and there is an immediate need to start evidence based drug treatment options such as opiate substitution therapy in the community and in prison settings.

NDDCB has introduced Minimum Standards of Care for treatment and rehabilitation centers being run by nongovernmental and governmental organisations to address issues around quality of services. This is a progressive step. However, at the same time, the introduction of compulsory drug treatment centres has been a step backwards. The

current drug and law enforcement policies in the country have a negative impact on drug users access to services. This has impeded the establishment of an enabling environment for HIV programmes for them, eroding their rights and negatively impacting their access to prevention, treatment and care services.

Predominantly, the use of narcotic drugs is subject to legal prohibition in Sri Lanka. Harm reduction measures, because they relate to drugs and persons who use them, are affected by the legal environment. Criminal and narcotics-related statutes both have a bearing on harm reduction; legal strictures may directly oppose or restrict measures for prevention, treatment and care or create conditions where harm reduction interventions are unable to reach drug users most at risk.

Harm reduction programmes promote safety and avert risks while tolerating substance use. This has resulted in a contradiction between legal and public health approaches to drug use. While penal law relates to a drug user as an offender, health authorities regard substance dependence as a manageable medical condition. Non-punitive interventions for drug users, in particular, programmes that primarily address drug related risks and not drug use itself are seen by some as bordering on the brink of illegality. Furthermore, certain programmatic measures such as needle and syringe programmes, opiate substitution therapy and condom supply stand in direct and obvious conflict with criminal law. It is in this incongruous backdrop that IDU and HIV containment efforts presently exist in Sri Lanka.

There is high degree of stigma and discrimination against drug users. People who use drugs are not meaningfully engaged in policy development, program design, delivering and monitoring and evaluation. At the policy level, NSACP is committed to achieve the community ownership and sustain the demand for services that have been envisioned for drug users. There is no network of people who use drugs in Sri Lanka. There is no representation of people who use drugs in the PLHIV networks. The prevention sub-committee has representation from NGOs working with people who use drugs.

In many countries in the region, harm reduction activities for injecting drug users did not begin until the prevalence among them was very high. Sri Lanka has a unique opportunity to prevent the epidemic from spreading among this population with the greatest vulnerability to infection.

### **Delivery of components of a comprehensive package for injecting drug users**

A combination of interventions are necessary to effectively prevent HIV infections amongst injecting drug users. Evidence supports a comprehensive package of biomedical and behavioural interventions as the optimal HIV prevention strategy for halting HIV among injecting drug users. The ideal combination is the comprehensive package of interventions as proposed by WHO, UNODC and UNAIDS (Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users, WHO, UNODC, UNAIDS, 2009).

Few services from the comprehensive package for IDUs are currently provided through the governmental and nongovernmental sectors. Drug users do not access these services and have extremely poor knowledge of availability of services except those provided through STI clinics. In addition these services are delivered at different health facilities and locations so that HIV prevention services available to the IDUs are institutionally and geographically fragmented. There is limited understanding of the concept of harm reduction and a comprehensive package.



<b>Component of comprehensive HIV prevention package</b>	<b>Delivery of services for IDUs</b>
Needle and syringe programmes	Not available
Oral substitution therapy	Not available
Voluntary Counselling and Testing	Testing services at governmental sexually transmitted infection clinics
Antiretroviral treatment	Governmental antiretroviral treatment centres
Sexually Transmitted Infection prevention	Governmental sexually transmitted infection clinics and hospitals
Condom programming for injecting drug users and partners	Nongovernmental organisations
Targeted Information, Education and Communication for injecting drug users and their sexual partners	Nongovernmental organisations
Hepatitis diagnosis, treatment (Hepatitis A, B and C)	Not available
Tuberculosis prevention, diagnosis and treatment	Governmental tuberculosis control programme

One of the current responses has been a UNODC-funded project to provide services to drug users for increased coverage and quality of care, support and treatment for drug users started in 2007. The services for drug users include: drop-in centres, outreach treatment camps (similar to abstinence based treatment models provided by NGOs), referrals to STI clinics and rehabilitation centers run by NDDCB and NGOs, self help groups, peer education, condom promotion and IEC material distribution. This project represents a missed opportunity for the United Nations to advocate for an evidence based comprehensive package of harm reduction services for injecting drug users. No data was available with NDDCB and NSACP to determine the coverage and reach of the services provided by the UNODC-funded project. The quality and effectiveness of these services was also not evaluated.

### **Recommendations**

1. The most effective course of action is to prevent HIV infections among injectors before prevalence increases. In locations where significant number of IDUs exist, early interventions will be easier to implement and cheaper than trying to curb later HIV spread among injectors and their sexual partners.
2. Opiate substitution therapy is a primary prevention intervention. Medication is prescribed by a medical doctor and administrated under medical supervision of a trained nurse or pharmacist. The substitution drug is taken orally or sublingually instead of

injecting. Oral substitution therapy eliminates the craving for illicit drug, blocks the effect of illicit opiate drugs if used, and gradually leads to total abstinence and recovery.

Programmes to provide sterile injecting equipment and opiate substitution therapy including methadone and buprenorphine, to injectors have demonstrated results in reducing the spread of HIV and reducing criminal activities. They should be implemented on a scale large enough to have an effect on potential HIV spread at country level.

3. The country should focus HIV prevention efforts on activities that reduce drug injecting, that promote the use of sterile equipment when injecting does occur, and that encourage safe sex among injectors and partners. This should be done immediately. Preventing an HIV epidemic among drug injectors can be a very effective way of avoiding a wider epidemic. NSACP has an opportunity to pilot needle syringe programmes through nongovernmental organisations participating in the ongoing UNODC-funded project.

4. NSCAP should assume the leadership for ensuring quality delivery of HIV prevention interventions among drug users by nongovernmental organisations. Coordination between NDDCB and NSCAP has to be strengthened for programming through regular monthly meetings to ensure that the response to drug users is cohesive. The prevention subcommittee of the National AIDS Committee should take this up as an urgent policy issue.

5. There is an immediate need to generate higher quality of information on HIV transmission patterns and trends among injecting drug users and the identification of epidemic 'hotspots'. This may be possible by using the district data available with NDDCB. This may lay down the basis for a more focused and highly effective response. Gender disaggregated information is also essential for a more focused response.

6. Introduction of a comprehensive package of services for IDUs is an immediate priority. NSCAP should start delivery of opiate substitution therapy through STI clinics, particularly in Colombo, where there has been an increase in the number of IDUs over the past five years. Introduction of harm reduction programmes will require effective advocacy with the relevant government departments.

7. Currently, methadone and buprenorphine are not listed as part of the Sri Lanka Essential Drugs list by the Ministry of Health and hence procurement and administration is considered illegal. (Convention against Illicit Trade in Narcotic Drugs and Psychotropic Substances Act, 2008). NSACP should advocate for inclusion of methadone and buprenorphine in the list of Essential Drugs.

8. There should be inclusion of non injecting drug users into the oral substitution therapy programme. Evidence from other countries indicates that 20% of opiate dependent people will benefit from OST. The NSCAP should look at ensuring that at least 20% of the total slot for OST be reserved for drug users who do not inject drugs.

9. Delivery of comprehensive harm reduction package in the public health system needs to be optimized with services delivered in the health system strengthened by working with nongovernmental organisations providing services to drug users.

10. Efforts should be made to establish a drug user network across the country and space created for this network to engage in the national response. The network should be

represented on the prevention subcommittee of the National AIDS Committee. Formal engagement of people who use drug users is essential in the delivery of harm reduction programmes.

11. A strategic concern is to promote non punitive, non discriminatory laws and policies that give drug users access to services thereby reducing further progression to injecting drug use. The existence of policy and legal review is a starting point for examination of requirements for harmonization of drug and HIV/public health laws.

**Major objective 2) of the expiring national strategic plan is: increased scale and coverage of HIV communication interventions for general population and lesser risk populations (youth, migrant workers, etc.)**

The strategic plan called for finalisation of a the communication strategy for the general population addressing stigma, discrimination, general awareness and knowledge, contracting a communication firm for a multimedia campaign, the organisation of awareness campaigns for World AIDS Day and memorials. It also called for mainstreaming of skills based reproductive health education, including HIV in teacher training and the student curriculum by the Ministry of Education; mainstreaming AIDS prevention among migrants and their families by the Bureau of Foreign Employment; the development of HIV strategies by the employers' organisations and trade unions under the supervision of the Ministry of Labour, and for nongovernmental organisations to support expansion of workplace interventions.

The strategic plan does not explicitly name, list, or prioritise lesser risk populations except to mention the above two: youth and migrant workers. Risk behaviour, HIV infection in the population and size of population are the only criteria that can be used to determine whether a population is a population at high risk. All groups that have been proposed as risk populations are reviewed below.

### **The Military**

The only group for which there is clear and irrefutable risk behaviour is the military. This group is diverse and includes three armed services: the Army, Navy, and Air Force, encompasses individuals of various rank and duration in the services, as well as those who are or were on active combat duty and those who have been assigned other posts. In 2000, the size of the Army, the largest of the three armed services, was reported as 120,000 regular personnel, with about 15,000 volunteers/national guardsmen.

A 2007 survey of six hundred Sri Lankan Army personnel sampled male soldiers 18-49 who had been in the service for at least 6 months. Multi-stage cluster sampling was done to be representative of all batallions in the Army. Female soldiers and commissioned officers were not included. Of the currently sexually active respondents approximately, 18% of sexually active respondents reported having two or more partners in the last 12 months. And approximately 15% of sexually active respondents paid for sex in the last year.

When broken down by marital status, 35% (141/405) of married respondents had sex with a non regular partner in the last 12 months; including 12% of married respondents who had bought sex in the last 12 months. About 18% (34/192) of unmarried respondents had bought sex in the last 12 months. Overall, 40% of respondents who had sex with a non-regular partner did not use a condom in the last 12 months. With respect to sex with men, almost 20% of sexually active respondents reported ever having a

homosexual experience. Approximately 7% of respondents declined to respond to the question. About 15% of respondents also report ever having sex without being willing.

A similar survey of nine hundred respondents was conducted in 2007 in transit camps in Anaradhapura and Ratmalana among Sri Lankan Army soldiers about to be deployed in the north-east combat areas. Many of these respondents had been previously deployed into combat areas. Approximately 6% of respondents were officers. Of all respondents 11% reported having more than one partner in the last 12 months. Of the sub-sample of 426 asked more detailed sexual questions and among the 360 who were sexually active in the last 12 months, about 11% reported buying sex from a sex worker in the last 12 months. Approximately, 19% of all married respondents reported ever having extra-marital sex. With respect to condom use, only 20% reported always using condoms with casual partners in the last 12 months; Among married men, only 29% used condoms during sex with partners other than their spouse.

With respect to homosexuality, 31% of the 796 who responded ever had homosexual sex. Of those who ever had homosexual sex, slightly less than half reported having a male partner in the last 12 months. Of those with recent experience with a male partner, about half of their male sexual partners were not in the military.

There are currently no studies of the Sri Lankan general population to determine what proportion of adult males buy sex. However, the proportion of Sri Lankan Army soldiers who have bought sex recently is high compared to studies in other countries among the general male population. Ten reported HIV cases have been associated with a history of being in the military, thus far, but this is not surprising given the overall low prevalence of HIV in the country and among sex workers and other core groups.

The evidence of multiple sexual partnerships and same sex behaviour are clear reasons to begin HIV prevention programmes in the Sri Lanka army. They are especially important as soldiers are no longer only on their bases, have regular contact with civilian populations, and return home for visits to their families. World Bank-funded activities stopped several years ago.

### **Recommendation**

Begin HIV prevention activities in the Sri Lanka Army immediately using state funds. Improve the content of HIV prevention activities in the armed forces to reflect changes in risk for soldiers in the post conflict situation. Information on the risks associated with alcohol and nonsterile injecting equipment should be included.

### **External migrants**

Of the 134 HIV cases in 2008/09 for which risk factor data were available, 22% or 39 cases people have a history of working overseas. This has raised some concern of the importance of doing prevention interventions for this group. This number of cases may make up a considerable proportion of all HIV cases reported, but to determine whether this accurately reflects the primary mode of transmission among HIV positive individuals in Sri Lanka, it is important to evaluate whether this is an artefact of who is getting tested.

This group includes both men and women who travel abroad for work. Women working as domestic help in Arabian Gulf countries comprise a large proportion of such workers. All such foreign workers must undergo HIV testing to verify their negative HIV status in order to get a visa from the country of employment. The Foreign Employment Bureau of

Sri Lanka certifies a number of public and private laboratories from which workers can get tests that are accepted for visa purposes. All such laboratories send their positive tests for confirmation by Western Blot to the central public laboratory. In this way, all positive test results from foreign employment worker testing are believed to be received by the national programmes for HIV case reporting.

According to the Foreign Employment Bureau, the number of foreign employment workers who may be outside the country at any given point of time was estimated as 1.2 to 1.5 million people. Approximately 260,000 people apply for visas each year to work abroad, and of these 125,000 to 150,000 are likely to be first time migrants. If it is assumed that at least 125,000 foreign workers are tested each year, the positivity among foreign workers before they intend to migrate is  $39/125,000 = 0.03\%$  prevalence. In many destination countries, there is periodic testing of foreign workers and if individuals are found to be positive then they may be deported back to their home country. It is likely that twice as many foreign workers were tested (that is 260,000 apply for visas and there is periodic testing of foreign workers in destination countries) which would result in an even lower positivity rate.

There are no behavioural surveys of foreign employment workers that describe sexual and drug use behaviour in Sri Lanka or in the destination country. The foreign employment worker population is not a priority population for prevention interventions in Sri Lanka. Mandatory testing of external migrants before they migrate is not a valid strategy of prevention or care for Sri Lanka. HIV testing of migrants on their return to Sri Lanka is not an evidence-informed strategy for either prevention or care.

### **Recommendation**

No new HIV prevention activities for external migrants should be initiated. For the one hundred thousand external migrants who received pre departure orientation every year, the curriculum should be improved to include the risks of infection from the use of non sterile injecting equipment.

### **Others populations in the expiring strategy**

There is no clear evidence of high risk of HIV among populations of youth, fisher folk, plantation workers, factory workers, or police. Population-specific HIV prevention programmes should not be initiated among these groups. A “communication strategy to reach the general population” was proposed in the last national strategic plan and was not developed. It should not be included in the next strategic plan. Special strategies for youth and women are not recommended. There is no evidence that “Know Your Status” campaigns are effective in the general population in low prevalence epidemics. These campaigns are not recommended.

### **Major objective 3) There is a third prevention strategy in the expiring strategic plan: increased quality and coverage of STI services.**

The provision of sexually transmitted infection services stands alone to meet the goal of improved health. There is little evidence that control of sexually transmitted infections has an impact on the course of generalised HIV epidemics and no evidence for impact in low prevalence epidemics. The strategy calls for maintaining and upgrading STI clinical services in twenty-six sites, training on syndromic management, provincial health departments to provide STI services, and the monitoring and updating of STI management guidelines.

The data generated by sexually transmitted infection control activities can only lead to a few conclusions on the impact of the control activities. Among people who come to the clinics, gonorrhoea appears to be declining. Nongonococcal urethritis in men clinic attendees is neither increasing nor decreasing. Both of these findings are consonant with worldwide trends. Sporadic cases of syphilis are occurring but there is no evidence of outbreaks in the last few years. Control measures for these three bacterial sexually transmitted infections continue to be needed. Condom distribution stands at about one condom per capita per year or four condoms per adult male per year over the last five years.

There is little that can be learned about incidence and prevalence from slow increases in the number of people who present with both genital herpes or genital warts. In any case, treatment for these conditions has little effect on their infectiousness and no public health impact.

### **Recommendation**

There are no major recommendations for the prevention and treatment of sexually transmitted infections. The high quality care should continue.

### **Care, treatment and the Health-care setting**

#### **Blood Safety**

The National Blood Transfusion Services is responsible for the supply of safer blood and blood products in the country through a network of 86 blood banks country-wide. Annual collection averages 300,000 units and services both public and private healthcare facilities. Blood unit screening is done in 12 centers for Hepatitis B, Hepatitis C, syphilis, malaria and HIV. The HIV screening by enzyme-linked immunosorbent assay was introduced in 2003 and was made a universal screening test in 2006. Screening for Hepatitis C was universalized in 2007 as screening showed an average of 0.3% hepatitis C prevalence in donor units since 2005. Blood units screened HIV positive are destroyed and a sample is sent to the Central STD/HIV Laboratory for confirmatory testing. Donors undergo a structured pre-donation education session, counselling, selection and deferral. For any donor unit screened HIV positive, they are asked to return to the blood bank for referral to the Central STD clinic for follow up. The majority of blood donors are voluntary non-remunerative donors with an average of 12% comprising replacement donors, usually friends or relatives. Regular voluntary blood donors comprise 60% of the donors. Several blood components are still imported such as albumin and the factor products. Guidelines for the rational use of blood have been disseminated and medical personnel working in the general health services are being educated in these guidelines. Implementation of the guidelines was not assessed during the review mission.

Data from the National Blood Transfusion Services shows a large discrepancy between the units screened and confirmed HIV positive in the table below. This may be an issue of the sensitivity and specificity of the screening ELISA test used in the low prevalence setting in Sri Lanka. The review team was informed that in October 2010, a new fourth generation HIV antigen-antibody ELISA test was introduced. A marked reduction from an average of 24 units screened HIV positive/month to 5.6 units/month was noted. This results in a reduction of blood units wasted and cost savings for the NSACP by reducing confirmatory Western Blot testing.

Year	2007	2008	2009
Total units collected	260,212	320,091	309,909

Screened as HIV positive	606 (0.2%)	846 (0.26%)	1280 (0.41%)
Confirmed as HIV positive by Western Blot at the Central STD Laboratory	2 (0.0008%)	11 (0.003%)	15 (0.005%)
Hepatitis C positive	675 (0.27%)	879 (0.28%)	970 (0.31%)
Hepatitis B positive	295 (0.1%)	300 (0.09%)	438 (0.14%)

Source: NSACP 2011

### **Recommendation**

Continued effort to reach the target of 100% voluntary non-remunerative blood donations would ensure the good progress in this area of work. National Blood Transfusion Services data should be used as part of NSACP surveillance for HIV, syphilis, and Hepatitis B & C.

### **HIV counselling and testing**

Voluntary informed consent based on the '3 Cs' (confidential, counselling, consent) remains the mainstay of the HIV counselling and testing services. There has been considerable progress since the last review in 2006. Thirty government STD clinics provide VCT where pre-and post-test counselling is provided by MO (STI) with support from PHNS, PHI and nurses. There is no data to assess the proportion of those tested who receive their test results and the External Review team heard that only positive HIV test results are actively followed up by STI clinic testing centres. Within the private sector, seven large private hospitals in two major cities of Colombo and Kandy provide testing services. There is little information on the quality of counselling and testing in the private sector and testing in the private sector is not linked to the established government quality assurance programme. All patients screened positive in the private sector are referred to government STI clinics for confirmation. While there is capacity for infant diagnosis, due to non-availability of test kits, early testing of HIV exposed infants continues to be a challenge.

Routine testing without informed consent is reported to occur as part of medical assessments for health insurance, pre-employment overseas programmes, diagnosis of HIV in hospital inpatients as well as for remand prisoners under the vagrancy ordinance. In the UNAIDS 2010 Stigma Index report, 78% of the respondents were tested for employment and the majority were tested without their knowledge.

In the last few years, NSACP has worked with NGOs and the plantation sector to establish counselling and referral centers including the Family Planning Association, Community Social Development Foundation working with sex workers, Companions on a Journey working with men who have sex with men, three community based organisations of people living with HIV, and the Mithuro Muthoro working with drug users. Using the Global Fund Round 6 grant, twenty-six counselling and referral centers in five districts were established covering 60 estates. Systematic reporting from nongovernmental organisations on number of people referred and tested is not done and is seen as a weakness of the system.

Increasingly provider-initiated testing and counselling in healthcare facilities is being promoted. There are 3 approaches being used:

- Universal offer of HIV testing by providers: at STD services and selected antenatal care sites included in this report under PMTCT.
- Diagnostic HIV testing within out-patient and in-patient healthcare facilities based on clinical signs and symptoms to support diagnosis, and
- Risk-based testing, either by self-risk or provider-risk assessment: at TB services and selected antenatal care sites.

During the Pollonaruwa field visit, the review team was informed that all TB patients at that site were universally offered HIV testing based on a directive from the provincial level, although the policy of the National Programme for TB & Chest Diseases is based on risk assessment. As health is a provincial responsibility, the national programme provides technical guidance while the implementation of health services falls under the purview of the provincial health directorate.

Data on entry points for HIV care showed that the major entry points for HIV infected patients are from the STI clinics, hospital services (out-patient and in-patient) and partner tracing through contacts of positive patients. People who walk into VCT services sites constitute a minority of patients due in part to the stigma attached to STI services. There are data gaps in NGO referrals. Analysis of the testing to treatment registration cascade would be helpful to understand programmatic barriers and help design solutions.

Inadequate HIV knowledge and skills to suspect and refer for HIV testing in clinical settings has been observed. Healthcare providers interviewed have stated that they need to have structured HIV training to improve provider-initiated testing and counselling, and to mainstream HIV care into general clinical services. Since HIV is a lifelong disease, skills in antiretroviral treatment and skills in the chronic continuum of HIV prevention and care is required to improve quality of services for adults and children living with HIV. Opportunities for structured capacity building in essential HIV prevention, care and treatment including basic counselling skills exists in the health system. These are the various undergraduate and postgraduate education, pre-service and in-service trainings at the various levels for medical, dental and paramedical healthcare providers.

Training to improve counselling skills based on the WHO South-East Asia Regional Office counselling modules is ongoing for public healthcare providers. Although there is some training for nongovernmental organisation providers, there is need to increase structured training for provision of counselling and voluntary testing referrals among staff of the nongovernmental organisations working with at most-at-risk populations. Promotion of VCT in at-risk populations is a priority and likely to provide the optimum cost-effectiveness in a low prevalence setting. Furthermore, there is an observed need to improve on specialized topics such as counselling children and adolescents since providers and parents have difficulty in communicating with children and adolescents infected with HIV.

## **Recommendations**

1. Provide structured training for community and positive network organizations to promote VCT in most at risk populations as a priority. Promoting VCT for these populations must be accompanied by effective referral and linkage mechanisms for those test HIV positive to care and treatment services. For those testing HIV negative, testing and counselling services are important to strengthen the messages on prevention counselling in these populations and 'staying HIV negative'. Staff providing testing and counselling services need to be provided specific training on sensitivity to working with at-risk populations, especially in communicating with them, stigma and discrimination and specific health and non-health issues within



- these groups. Additionally, HIV testing should be geared towards most at risk populations, STI patients, and suspected HIV infection cases and not towards the general population or youth as the risks are low.
2. Optimize use of provider-initiated testing and counselling with structured, simple guidelines and protocols for risk assessment in the various health care settings. Capacity building for basic HIV care for health care providers would be useful to integrate HIV into general health services. For testing in antenatal services, see the PMTCT section.
  3. Strengthen analysis and use of data from all sources including testing services to support design of programme strategies and expansion of services, both at national and provincial level.

### **Prevention of mother to child transmission of HIV**

The prevention of mother to child transmission of HIV is part of the new National AIDS Policy. The objectives of the PMTCT programme have been updated to include the elimination of paediatric infections by 2017 as well as elimination of congenital syphilis by 2015. The Government of Sri Lanka has adopted the four pronged comprehensive approach recommended by WHO/UNICEF to prevent HIV among infants and children using an integrated approach. These are primary prevention of HIV transmission, prevention of unintended pregnancies among women living with HIV, prevention of HIV transmission from pregnant women living with HIV to their offspring through provision of antiretroviral treatment; and provision of care and support for women living HIV, their children and families.

The care of HIV pregnant women and infants have been integrated into the programme of the Family Health Bureau which is responsible for maternal, child, reproductive and sexual health including family planning. As 99% of pregnant women have institutional deliveries and many are being delivered by consultant obstetricians, the maternal and child health services provide an ideal setting for integration of PMTCT. While there is private sector care in maternal health, the public sector provides up to 94% of all care for pregnant women. NSACP provides the technical assistance for this programme and has close collaboration with the Family Health Bureau in PMTCT, elimination of congenital syphilis and family planning. Integration of HIV within the family and child health programme includes updating national guidelines on PMTCT, guidelines on congenital syphilis elimination, development of the antenatal package with integrated PMTCT interventions, integration of STD/HIV awareness, prevention and self-risk assessment within the parent craft class education module for women and their spouses. It also includes family planning and contraception for women living with HIV as well as establishing linkages with the adolescent prevention through life-skill education and protection interventions targeting the most at risk and especially vulnerable adolescents.

The adolescent School Health Programme includes the importance of STD/HIV prevention as well as importance of PMTCT. Training of public and primary health care providers, labour room staff and doctors including residents and interns are ongoing. Community outreach for all pregnant women occurs through the network of primary care services. However there are still reports by the positive network of stigma and discrimination occurring in health care settings despite training. UNICEF and WHO provides technical support in these areas. While MCH services serve as the entry gateway to HIV services, the current model of care for pregnant women requires joint management from the 'curative' service i.e. the obstetric unit, together with the STD/HIV clinic for antiretroviral treatment and care. In 2009, training for doctors in PMTCT and provision of ART and care without stigma and discrimination was conducted with 60 clinicians trained. This model of integration of PMTCT with MCH

services should be considered a best practice although there is the ongoing challenge of stigma and discrimination in the health care setting.

Mother-to-child transmission account for 5.4 % of the national reported HIV detections. With approximately 7.5 million women in the reproductive age group in the general population, 232 women were estimated to be living with HIV in 2010. Fifty pregnant women were estimated to require ART in 2010. As of December 2010, a cumulative total of 46 children living with HIV were reported and almost all through vertical transmission. The two leading maternity hospitals in Colombo (De Soysa Maternity Hospital, and Castle Street Hospital for Women), base hospital Gampaha and Kalutara are the four sites where antenatal screening for HIV is done. At De Soysa Maternity Hospital, all antenatal women are tested for HIV as part of the basic antenatal screening tests after providing group pre-test information. In January 2010, this strategy was extended to Castle Street Hospital for Women. The strategy of opt-out was piloted in Gampaha in 2004 and has continued to the present. A similar opt-out pilot in Kandy district from 2004-2006 yielded no positive cases. Mothers were provided group information on HIV and have the option to opt-out from testing. The Kalutara pilot of the opt-in within antenatal clinics included an HIV self-risk assessment by antenatal women. This approach was recently reviewed and found to have low acceptability. The review team was informed that there is an ongoing debate on universal HIV testing for pregnant women versus the targeted approach of risk assessment. The PMTCT data show very low overall prevalence in antenatal women. From 2006 to 2010, a total of 61,066 pregnant women were screened in antenatal clinics of which 9 (0.01%) were confirmed HIV positive. In 2009-10, of the 20,553 pregnant women screened at De Soysa Maternity Hospital, five were confirmed HIV-infected. The Castle Street Hospital for women in 2010, and Gampaha and Kalutara sites in 2009 and 2010 had no positive results.

Previous national PMTCT guidelines followed the WHO 2006 recommendations. National guidelines have been updated in 2011 to use the triple antiretroviral prophylaxis, WHO Option B, as the preferred PMTCT regimen. The preferred infant feeding option in the context of HIV currently is replacement feeding. Because of the low numbers of positive pregnancies, sponsorship of formula milk (and sometimes, other related commodities such as bottled water) for six months by the AIDS Foundation of Sri Lanka and other NGOs is arranged by the programme. The draft 2011 national PMTCT guidelines provide the option of breastfeeding under cover of antiretroviral prophylaxis, after counselling and according to mother's choice. Breastfeeding is widely practised in the country and replacement feeding often invites questions about HIV status from family and community.

On reviewing the draft national PMTCT 2011 guidelines, viral load monitoring is recommended at baseline, 2 to 6 weeks after initiating or changing ART, monthly until undetectable levels are reached and every two months. If viral load is used to support the decision for mode of delivery, it would be assessed at 34-36 weeks of gestation. If implemented according to guidelines, each HIV infected pregnant woman will have between 4 - 6 viral load tests during pregnancy. However, viral load testing in the Central STD/HIV Laboratory have been sporadically available due to frequent reagent stock-out. The issue of frequent reagent stock-out has been noted by the last programme review in 2006. Furthermore, assuming a viral load test costs the equivalent of \$US 120, and with an average of 5 tests per pregnant woman, the total viral load cost per pregnant woman would be \$US 600. Thus, implementation of the use of viral load for care of HIV-infected pregnant women will depend on the consistent availability of testing, utility of the results to clinicians for patient monitoring and rationalizing use within a programme with limited resources.

## **Recommendations**

1. The practice of universal HIV testing with opt-out within the antenatal setting, characterized by group pre-test information on antenatal screening tests including HIV, syphilis, haemoglobin, blood grouping and Rhesus factor is not cost-effective in a very low prevalence setting. Data from the four antenatal sites showed very low burden of HIV. A cost analysis of universal HIV screening per case detected would inform future policies on testing in the antenatal setting and is recommended. While the 'opt-in' approach using a self-risk assessment has been piloted in Kalutara for some years, documentation and evaluation of the implementation experience needs to be done as it will be invaluable to guide further decision on using this approach in the antenatal setting. In addition, the approach of risk assessment by health care providers with an offer of HIV testing for pregnant women should also be evaluated for feasibility and patient/provider acceptability. Site selection to pilot out the approach should take vulnerability and risk factors of the local population into consideration.
2. Use of data from HIV testing and entry points should support planning and expansion of service sites. Gap analysis of the HIV testing to treatment cascade need to be reviewed to find solutions to barriers.
3. The utility of viral load testing for routine clinical monitoring of pregnant women should be rationalized within a programme with limited resources.
4. The model of integration of PMTCT with MCH services should be considered best practice, although there are challenges of stigma and discrimination in the health care setting. Continued efforts to reduce stigma and discrimination attitudes in all cadres of health care providers including training in HIV knowledge and skills for essential HIV care are required. Prioritization of training for service delivery sites is required due to the low prevalence and should be guided by vulnerabilities and risk factors of the local population.

## **Elimination of congenital syphilis**

Antenatal screening for syphilis has been a routine in the country since the 1950s. The incidence of congenital syphilis is low. In 2009, almost 98% of antenatal mothers were screened for syphilis and 4 cases of congenital syphilis were reported. In STD clinics a total of 18,970 clients were screened and 3.1% confirmed to have syphilis. Ninety percent of these STD clients were treated. The rate of infectious syphilis in 2009 was 1.03 per 100,000 population.

The Elimination of Congenital Syphilis campaign was introduced in 2009 with the target of reducing the incidence of congenital syphilis to less than 0.005 cases/100 live births by 2015. The introduction of a rapid test using the on-site rapid qualitative immunochromatographic strip test to 20 peripheral sites with laboratory constraints have enhanced coverage. However the test is expensive. The MO (STI) is responsible for notification of pregnant women and mothers with syphilis and babies with congenital syphilis.

The ECS campaign is integrated within the universal health provision for pregnant women. Experience with the implementation of ECS noted constraints such as competition with other health priorities e.g. dengue especially at provincial level, higher cost of the rapid test, lack of staff for blood drawing and transport, transfers of laboratory technicians resulting in non-availability of laboratory services, time lapse between drawing blood for screening and tracing mothers presenting to STD services, duplication of testing in field clinics and hospital ANC as well as translation of communication

material into the Tamil language. There is little information about VDRL testing in the private sector. A validation test was done on 31 samples which showed that the concordance between the rapid test used with TPHA as the gold standard was 80% compared with the VDRL/TPHA at 61%. The overall experience with using the rapid test has been good.

Advocacy from NSACP to involve the provincial health directorate has resulted in good cooperation and coordination to implement the ECS. The MO (STI) has had competing priorities as they run both clinical and community/public health activities. There is a need to improve the coordination and liaison by the NSACP with the Regional Director for Health Services / Medical Officer – Maternal Child Health / Family Health Bureau focal point for antenatal care and focal point for M&E/MO (STD) to strengthen monitoring of district implementation.

In spite of these challenges, since Sri Lanka has a strong health system for elimination of congenital syphilis, continued efforts to sustain the pace and progress is important to achieve the goals.

### **Recommendations**

1. A comprehensive cost analysis is required for the syphilis testing algorithm comparing VDRL and the various rapid tests kits including/excluding the use of TPHA as the confirmatory test, infrastructure and laboratory staffing costs and cost-efficiency of the system to deliver the results to clinicians for action.
2. Review the model of syphilis screening and consider if VDRL or rapid testing may be done by clinic staff other than the STD clinic laboratory technician or integrated into provincial/district hospital laboratory.

### **Care, support and treatment**

Free ART for all eligible people living with HIV began in November 2004. With an estimated 3,000 people living with HIV in 2009, a cumulative total of 1,196 HIV persons were tested and reported to the NSACP. Data of 2010 shows 162 pre-ART patients, 265 patients on ART and a cumulative total of 49 deaths of patients taking ART. There are 24 children registered with NSACP, half of them taking ART. Thus there is about a 50% gap from testing to ART service registration. Cohort analysis from five ART sites showed low patient volumes except for the Colombo clinic and IDH, with an average of 95% patients surviving at two years of treatment. Default rates and lost to follow-up is low, and the strong STD/HIV public health network tracks defaulters back into the programme. For the few patients who cannot attend ART clinic, drugs are sent to the peripheral STD clinic where the MO (STI) follows up the patient.

There has been considerable effort in training health care providers at national and provincial level in HIV care through various levels including medical and nursing schools, the College of Physicians of Sri Lanka and provincial health directorates. However, sustaining training has been difficult due to lack of funds and high staff turnover in the general health services. Most of the medical specialists trained in 2005 by Bamrasnaduras Institute in Thailand have retired from service. NSACP staff remain the primary national trainers in HIV care, responding to training requests from universities, medical associations, NGOs and other programmes. Clinicians interviewed reported a lack of HIV knowledge and skills, although they knew where to refer HIV patients to. PITC in the clinical setting is still lacking. Positive networks report subtle stigma and discrimination within health care settings, more so from janitorial and ward attendants.

There are funds in the Global Fund Round 9 grant for capacity building and training programmes in HIV care and treatment.

The main referral hospital for HIV in-patient care is the Infectious Diseases Hospital, which has over time built experience in managing complex HIV and TB-HIV cases as well as outpatient ART. There is no public health arm within the IDH and thus for tracking defaulters, IDH needs to link with the Central STD/HIV clinic for the outreach component. Both national and provincial health services refer infectious disease patients to IDH. IDH provides short and long term in-patient including palliative and end-of-life care; although staff have not been trained in these areas. An average of 250 HIV infected patients are admitted annually to IDH staying for between 2 weeks to 2 months, and sometimes longer. Positive networks reported inadequate facilities at IDH such as laboratory investigations and drugs. Recently, a laboratory specialist has joined the staff at IDH and is now improving the range of laboratory investigations. On review of the detailed individual spending records to support this area, the items supported include basic haematology/biochemistry, advanced testing such as ceruloplasmin and ferritin, X-rays, and some basic drugs other than ART. Some of these laboratory investigations and drugs were available in public hospitals, while some are special investigations available only in the private sector. The lead clinical specialist in IDH had expressed a lack of investment and clear roles/function of IDH in the care of HIV and its related conditions. Positive networks also indicated frustration about inadequate facilities at IDH as it was the main referral end-point facility by the national programme as well as other public hospitals including when there was stigma and discrimination in other hospitals.

Other hospitals in Colombo such as the National Hospital as well as provincial hospitals admit HIV patients for in-patient care, and the NSACP consultant venereologists provide technical advice on management. While there was general agreement that there is need to have a specialised facility which has experience in complex and long term chronic care of HIV/AIDS, there is also need to ensure good access for general care in other public hospitals, without stigma and discrimination. The development of a specialised facility with more experience in complex case management should balance the issue of 'AIDS exceptionalism within the healthcare settings' and ensuring access to good care in public general hospitals. A facility with experience in managing complex cases for which would act as the 'specialist referral' where other facilities are unable to deal with; as well as ensuring that all public hospitals (at least at the level of the provincial hospitals) are able to adequately assess suspected cases, provide basic primary care and management of non-complicated opportunistic infection cases e.g. candidiasis, HIV-TB co infection which requires concurrent ART and DOTS treatment, pneumocystis pneumonia; as well as common illnesses which are non-HIV related.

At provincial level, integrating basic care for HIV patients is possible as the numbers per district is low. This would allow the provincial hospital to be part of the support to the district MO-STD and related preventative and community-based programmes; and vice-versa - for example in tracking defaulters. At the same time, establishment of basic HIV care capacity at the provincial hospital/health service level will enable decentralised delivery of treatment and care nearer to the patients' homes at some point during the next strategic plan.

There is need for better patient education of PLHIV and positive networks on treatment literacy and what constitutes good care, to ensure realistic expectations for HIV care in Sri Lanka. For example, one of the wishes expressed clearly by the positive networks were for access to routine viral load monitoring. However, in resource-limited settings, the utility of viral loads needs to be carefully balanced with available resources and the

additional information it provides to clinicians for treatment management in view of the limited armamentarium of antiretroviral drugs.

For children, the Lady Ridgeway Hospital is the paediatric referral hospital. As there are small numbers of HIV infected children for pre-ART and ART care, there is limited experience in the continuum of care for children and adolescents living with HIV including disclosure and psychosocial issues. Obstetricians co-manage HIV infected pregnant women with the STD Clinic, usually providing combination triple drugs as the preferred prophylaxis regimen for prevention of transmission from mother to child.

There is a strong focus on ART treatment within the national programme. Strengthening the HIV chronic care continuum including improved management of opportunistic infections and in-patient care, peer support, home and community care, welfare and social protection is required. WFP had funded a nutrition program from 2007 -2008, and food was also supplied from April to December 2010. Positive networks and clinicians report lack of knowledge in linking to programmes of other ministries. Many positive people rely on the three networks for PLHIV which are Lanka plus, Positive Women's Network and Positive Hope Alliance, although the reach of these networks are not comprehensive due to limited resources. The care of affected and infected children is not articulated in the existing national strategic plan. Children and families accessing care from the positive network organisations are linked to nutrition and education schemes, and provided limited livelihood support. Discussions with HIV positive families note that the over-riding concern was about livelihood and income generation to support their families and children, since a parent or parents are doing well on treatment.

Since 2008, Global Fund resources have been used to procure prequalified ARV drugs. In general, drug supplies are adequate although there was a stock-out of tenofovir/emtricitabine for three months this year. The delay in supply was due to the issue of Sri Lanka being categorized as a middle-income country, and thus not listed under the originator company's list for preferential lower pricing of tenofovir. Drugs have now arrived although they were procured for three times the original cost to the programme. The high cost of combination tenofovir/emtricitabine is of concern, since the national programme may adopt the tenofovir based combination as the preferred first-line regimen for all new patients this year. Paediatric drugs using syrups are also procured. However, for older children, syrups are not suitable due to the volume of syrups they need to take. Using fixed dose combination paediatric tablets would be more appropriate, as recommended by the new WHO 2010 guidelines. New 2011 national guidelines for treatment of adults are in draft. There are no guidelines for management of HIV and ART in children yet.

## **Recommendations**

1. Within the national strategic plan, the roles and responsibilities of the health sector should be articulated including the functions and how the various departments of the Ministry of Health work together to achieve the objectives of the health system response to HIV.
2. Develop a document to clarify the organizational model of the care continuum, referral, linkages and the stakeholders. This should include all services that the PLHIV needs (social and medical), referral relationships between different care providers from home, community to primary/secondary/tertiary care levels; and roles and responsibilities of the care providers (NGOs, PLHIV groups, religious groups, medical services, MO-STD, MO-TB etc). The care of infected and affected children as well as the family continuum needs to be clearly stated in the next strategic plan. The function and role of IDH needs clarity within the model of care

for both TB and HIV programmes. This would guide planning for resources and investment by the Ministry of Health. The model for HIV care in a low prevalence setting with a strong health and academic infrastructure as in Sri Lanka needs to take into account both ART treatment delivery and acute infection in-patient care - balancing between provincial hospitals and central health services. Planning on the model for service delivery will enable decentralisation of prevention, treatment and care nearer to the patients' homes at some point during the next strategic plan.

3. Although the burden of HIV infected cases are low, there is a need to ensure good quality of the continuum of care for people living with HIV as well as improving PITC. Long term chronic care management and adherence support is required, and this capacity needs strengthening as PLHIV remain well with ART treatment.
4. Prioritize and establish national and provincial capacity in the various aspects of HIV care for adults, pregnant women and children within the cadre of physicians, obstetricians and paediatricians and other healthcare providers. Review the opportunities to integrate HIV knowledge/skills within undergraduate and postgraduate education, pre-service and in-service trainings at the various levels. Foundation and refresher trainings using newer adult learning methods needs to be systematically developed for selected personnel from all health facilities from the level of the base hospital and above. The programme can also consider external training or study attachments to other countries for specific skills such as management of infants, children and adolescents living with HIV; TB-HIV, chronic and palliative care and other opportunistic infections.
5. Issues and challenges of procurement and supplies of ARV drugs and those for opportunistic infection require an in-depth review to predict and mitigate future problems. Patients should not bear the costs of ARV and opportunistic infection treatments where access is available in most public hospitals. Mechanisms for the state to bear these costs should be examined. ART treatment guidelines should be clear about the preferred first and second-line regimens so that forecasting of requirements is accurate. The issue of third line or salvage treatment is a global problem, and the need should be considered individually. The programme should also consider procuring fixed dose combination paediatric formulations for children, following the WHO guidelines.
6. Through intensive discussions with the various stakeholders, the review team endorses the recommendations of the Sri Lanka Stigma Index 2010 report for implementation.

### **Strengthening community and home based care**

Community, home and peer support is one of the important areas of support for people living with HIV whose medical needs are being met. While the STD/HIV public health programme can do outreach and follow up patients, home and community support by peers is important to reinforce long term compliance to care and treatment. Although articulated in the National Strategic Plan, there has not been a structured programme in this area. UN agencies and NGOs have provided support and attempted to develop the positive network organizations over the last several years but these efforts were not consistent or sustained. The provision and support by positive networks are ad hoc and project based according to availability of funds. The positive networks are providing half-way shelters for patients attending clinics or requiring a few days stay in Colombo for medical and other treatments. Funding support for these services are project based.

Treatment literacy is weak within positive networks including education for health and prevention; as well as sexual reproductive health for people living with HIV. The Global

Fund Round 9 grant has funds to support and develop the positive network organizations through Lanka Jathika Sarvodaya Shramadana Sangamaya, the NGO Principal Recipient. Clarity of function and role of the positive networks within the organizational model of prevention, care, support and treatment will help maximize the outputs of the Global Fund resources.

### **Recommendations**

1. Develop a structured programme to strengthen positive networks on treatment literacy including legal, welfare, social protection and their medical and reproductive health needs.
2. Assess of the care and support needs of people living with HIV, including the coping mechanisms for chronic care and health seeking behaviours of people living with HIV. This will inform the programme on needs and funding gaps to be planned for the next strategic plan.
3. Develop guidance on the role of positive networks within the programme framework.

### **TB-HIV collaboration**

Tuberculosis control activities are operated through the national programme for TB Control and Chest Diseases through 26 district chest clinics in 25 districts and 2 national chest hospitals. DOTS is implemented in most districts with a coverage of 97.6% (2008). Since 2009, the Colombo chest clinic has started a universal offer to HIV testing to all TB patients. With about 2,000 TB positive cases annually, in 2010, only 2 (0.1%) HIV positive cases were detected. Blood is sent from the chest clinic and to the central STD laboratory. The current policy for HIV testing in TB patients is based on risk assessment. However, risk-based screening by clinicians for TB patients seemed difficult due to both patient and provider sensitivities. The national draft 2011 TB-HIV guidelines included the recommendation that all patients diagnosed with TB should be offered screening for HIV. Concern about the appropriateness of universal HIV screening in TB patients was expressed within these guidelines.

NSACP and the NPTCCD cooperate in TB-HIV with development of national guidelines, training modules and, reporting and recording formats. NPTCCD is part of the NAC and HIV care and treatment sub-committee. However there is no formalized regular coordination meeting between the two programmes. The HIV status is not included in the TB case records due to confidentiality reasons. A separate register for TB-HIV cases is kept. Deaths in TB-HIV patients are noted as due to TB and thus the TB programme had expressed concerns about the correctness of mortality reporting. Challenges include quality of care for TB-HIV patients who are usually admitted to the under-resourced Infectious Disease Hospital in Colombo, acceptability of risk-based HIV testing in TB patients as well as improving screening protocols for TB in HIV patients. In addition, of concern to both programmes is the ability to detect TB-HIV cases within the prison setting. The Colombo chest clinic has a routine TB clinic in the Welikada prison where they see an average of 200 TB patients who are also mostly drug users or injecting drug users. However, there are difficulties in referring prison patients out for HIV testing. Isoniazid preventative therapy has not been introduced as there is an ongoing debate about the appropriateness of IPT in the country.

### **Recommendations**

1. Formalize a regular coordination mechanism between NSACP and NPTCCD to work on collaborative activities and seek synergies in programming. One of the strengths of the TB programme is offering services within the prison setting, for



which the model could be examined by the HIV programme in working effectively with the prison system. At the same time, as there will be review of prison health services soon, this would be an opportunity for both TB and HIV programmes to build partnerships and seek collaborative activities in this setting.

2. Clarify the function and role of IDH to support the model of care for both TB and HIV programme which is required for planning of resources and investment by the two programmes and the Ministry of Health.
3. Universal offer of HIV testing in TB patients in the low prevalence setting may have low yield. Recognizing the practical difficulties of risk-based screening in TB clinics, NSACP and the National TB Control Programme should consider collaboratively examining the systemic, patient and provider factors which determine uptake of risk-based assessment. Concurrently, programmatic implementation of universal offer for HIV testing in all TB confirmed patients could be selective; based on the local epidemiology and known population risk factors from routine monitoring data.

### **Laboratory support**

The National STD/HIV Reference Laboratory in Colombo provides reference laboratory services for STD and HIV testing throughout the country. While peripheral laboratories may screen for HIV, confirmation is done by Western Blot. Out of 26 STD clinics, 13 clinics are supplied with the particle agglutination rapid test, 3 are linked to the reference lab or Kandy (Mannar and Kegalle, Matale) while others have ELISA capacities on-site. In 6 clinics, the VDRL and HIV tests were being done in the hospital pathology lab. CD4 testing is available but reagent stock-out has been reported. HIV viral load testing using the Roche Amplicor has not been available for some time now as there are no test kits. Similarly, early infant testing using the Roche DNA PCR has not been available due to low volume and test kit issues. During the field visit, there was no testing of HIV on-site in the clinic visited. Blood was collected from patients, serum extracted and kept in refrigeration for almost six weeks before sending to the reference laboratory. There was a test kit stock out. The reference lab is linked to the Medical Research Institute for other pathological tests. Laboratory investigations to support general care such as x-rays, haematology, biochemistry, sputum smears and basic microbiology are available in most public hospitals.

The HIV testing algorithm is based on ELISA and Western Blot for confirmation. Major issues with laboratory services are the absence of continuous supply of reagents and test kits. Procurement for kits takes a very long time, sometimes up to two years. For low volume tests such as viral load and HIV DNA PCR, there is inability to get suppliers for these commodities. Overall, cost-effectiveness of tests is a major concern because of the very low demand especially in the peripheral clinics.

### **Recommendations:**

1. Ensure availability of HIV and CD4 tests as priorities for essential HIV testing. The mechanism for procurement needs to be examined to improve efficiency.
2. Planning for quantities of test kits need to be done by the responsible technical unit within the NSACP. Forecasting and supplies of commodities require monitoring both from the laboratory as well as the technical programme units. Expansion of testing for example, needs to be planned by the technical unit with the laboratory support so as to assure adequate test kits in the country. Since the numbers of tests kits are limited, testing should focus on most at risk populations, STD and suspected HIV infection cases, and not as general health screening for the youth or general population as these are at very low risk and prevalence.

3. Review the HIV testing algorithm to include newer lower-cost diagnostic point-of-care rapid technology which will give the similar sensitivity for screening out and/or confirmation of HIV. The use of point-of-care diagnostic tests will improve cost-effectiveness especially in clinics with low volumes. The additional benefit is that patients leave the clinic knowing their HIV status.
4. In strengthening laboratory services at the provincial level, consider the appropriateness of integrating STD and HIV testing at the provincial hospitals which have a fully functioning laboratory with adequate staff. One of the models may also be clustering STD clinics for the provision of laboratory services in peripheral stations so that testing could be more cost effective. The turn-around time from blood taken to result given needs to be examined.
5. Consider outsourcing or link-out for low volume tests such as HIV DNA PCR for early infant diagnosis, viral loads and HIV resistance testing to the Medical Research Institute or university laboratories with the appropriate experience and accreditation or to the WHO Reference Laboratories.

## **Strategic Information**

### **1. Surveillance**

HIV surveillance in this review encompasses data collection, collation, and analysis activities for the purpose of characterizing the epidemic in terms of biological markers and determinants of HIV transmission. In low prevalence HIV epidemics, the primary objective of the surveillance system is to be able to detect the geographic areas and groups where the HIV epidemic is emerging so that appropriate prevention interventions can be put into effect on time. This section reviews efforts in data collection and use of surveillance data over the period of the last strategic plan.

### **Mapping and Size Estimation**

Consistent with regional and global guidance, Sri Lanka has recognized the importance of estimating the size of sex workers, injecting drug users, and high risk men who have sex with men in different geographic areas of the country, as a critical measure for detecting where local epidemics may emerge.

The process of developing a country-appropriate methodology for mapping FSW and MSM illustrates how development partners and NSACP worked effectively together to build country capacity around a priority surveillance/M&E activity. The result is a methodology employing best practices from approaches used in other countries in South Asia (e.g. India, Afghanistan, Pakistan), but which has been adapted to the Sri Lankan context. The process also developed capacity of in-country researchers and field teams in the methodology, who can be engaged to extend the work to other districts and risk groups. .

The Global Fund Round 9 funding will extend the mapping to thirteen additional districts under one Principal Recipient and support a lighter level of social mapping to the districts where interventions have been planned under the second Principal Recipient. A key concern is that the selection of districts to map for each risk group (FSW, MSM, DU) are based on existing evidence of where there is epidemic potential, and the findings of the mapping exercise are to be used to guide where interventions should be placed. Mapping activities for the size estimation purpose and social mapping activities conducted by implementing agencies to plan prevention interventions under the second Principal Recipient should be complementary and not duplicative.

One area of concern about the previous mapping exercise was the insistence of NGOs that the NSACP not retain the detailed mapping data for fear that the data could be used by police or other authorities to harm the community. While, these types of data must be secured properly to protect the communities, they also constitute critical surveillance data that must be available for analysis as mapping and size estimation exercises are updated over time. Before the next set of mapping activities moves forward it is important to establish greater trust and partnership between NGOs, NSACP and change the precedent set regarding the appropriateness of NSACP to house all surveillance data and maintain it securely.

### **HIV case reporting**

HIV case reporting is an important ongoing source of data for the HIV surveillance system. Due to the centralized system for confirmation of positive test results via Western Blot at the central laboratory in Colombo, confirmed diagnoses of HIV are reported in a complete and timely fashion to NSACP.

A primary use of HIV case reporting data is to analyze the patterns or modes of transmission among diagnosed cases to identify groups which may contribute greatest to local transmission. In countries, like Sri Lanka, where the population tested is highly selective, this analysis must take into consideration the denominator of types of groups being tested. For example, a substantial number of HIV cases (39/139) reported in 2010 had a history of travelling overseas for work. This has been interpreted as evidence of the need to intensify prevention efforts among those migrating for foreign employment. However, given the large number of people migrating (~260,000 a year) and the fact that the vast majority of such workers are required to be tested for HIV in order to get their employment visa, the positivity among foreign employment workers is still very low. (i.e.  $40/260,000 = 0.01\%$ ). When asked, the SIMU said the denominator of foreign employment workers tested is maintained by the Foreign Employment Bureau (FEB) and they have no contact with this agency. Data obtained on the annual number of migrants was obtained through the external review process upon meeting representatives of the FEB.

To optimise the utility of the case reporting data to gain insight into the epidemic and determine whether the number of cases are higher than expected, it is necessary to separate the cases by type of testing site and to obtain the corresponding volume of testing by type of testing site.

### **HIV Sentinel surveillance**

HIV sero-prevalence surveys at sentinel sites among high risk populations have been conducted since 1990. The last round of sentinel surveillance (2009) included FSW, STD patients, TB patients, service personnel, MSM, and drug users. These data are reported at provincial level and include samples collected from multiple locations within each "site." These types of sentinel surveillance data are intended to provide information on a trend in HIV prevalence among the selected sentinel populations. It is not expected that these data provide representative measures of the magnitude of HIV prevalence among the high risk groups. This is due to the limitations of facility-based sampling methods and the expected selection bias among groups who access services. In Sri Lanka, due to the current low prevalence of HIV in all populations, sentinel surveillance functions as a periodic measure for confirming that HIV prevalence remains low in a group rather than a tool for assessing trends. Experience from other countries in the region suggests that with the exception of drug users, especially injection drug users, it is not necessary to conduct sentinel surveillance every year in such a low prevalence setting.

This is consistent with technical advice provided in 2008 by the WHO regional office and resulted in skipping the sentinel surveillance round that year.

### **Use of existing data**

There are a large number of valuable existing data systems in the country which can be used to monitor the epidemic and detect emerging pockets of HIV. For example,

- **STD Clinic data:** The data reported quarterly through the STD clinic system provide important information about the epidemiology of STD that can be disaggregated by district and specific groups in the STD patient population (e.g. new patients, SW, youth, etc.) (see section on routine monitoring data for more details);
- **Blood bank screening:** These data provide HIV, Hepatitis B/C, and syphilis (active) prevalence that can be used as a proxy for prevalence of these diseases among the general population. Given the large volume of blood units screened it should be possible to obtain the dataset disaggregated by district.
- **NDDCB datasets:** These include the Drug Abuse Monitoring System (DAMS) and the statistics on drug arrests provide some information by district about the presence of heroin users, which may signal the presence of a large group susceptible to adopting injection drug use behaviour.
- **NGOs programme data:** Those working with sex workers, MSM, and drug users already collect data on numbers registered or reached and the specific number of locations/hotspots where key populations are found in their local areas. They may also conduct rapid assessments that characterize the level of risk behavior among local populations of sex workers, men who have sex with men, and injecting drug users.

At present, there is no active collation and analysis of these important data by the SIM unit. However, review of examples of data coming from these sources suggest that ongoing collation and analysis can be used to prioritize geographic areas by epidemic potential, or to pick up signs of risk behaviour at district level or below.

To use these sources of data for HIV surveillance purposes it is important to clarify how each data source contributes to the understanding of where there is epidemic potential, i.e. the potential for epidemic to emerge in a particular location. In a low level epidemic, epidemic potential is defined mostly by the presence of a large groups for which a high proportion have a history of injecting drugs, or have multiple sexual partnerships over a short duration of time. In the Asian context, sex with multiple casual partners is uncommon among women in the general population. The more common context for having multiple sex partners is through commercial or transactional sex and men having sex with men.

Given the rich data sources available, it will be useful to develop a surveillance analysis plan which regularly collates the available data and systematically assesses the epidemic potential of specific populations in different geographic areas. Key groups to assess include, foreign employment workers, military, police, in school and out of school youth, MSM (different sub-types), FSW (different sub-types), drug users, and prisoners, other suspected male client of sex worker occupational groups. (An example of assessing epidemic potential among these groups is provided in Annex A).

Application of surveillance data to planning and resource allocation

Surveillance data are only valuable if they are used to guide the design and implementation of the response. In this review, several key areas of data use were examined:

- a. Does the analysis of surveillance data help to identify areas where or among who the epidemic is emerging and trigger investigation or further assessment? As described in the earlier section, existing data sources are not analyzed for the purpose of detecting areas where the epidemic may be emerging. The lack of communication between the SIMU and the other programme coordinators also suggests that if and when the Surveillance unit begins to conduct these types of analysis, there is not a clear mechanism or procedure to trigger further assessment to determine what if any intervention may be required.
- b. Do the areas where largest size of high risk female sex workers, men who have sex with men, drug users, injecting drug users, and prison populations match the prioritization given to selecting where prevention interventions for these groups should be, and determining the phasing of scaling up services? Sri Lanka currently has limited data on the size estimates for these key populations, but this is a critical future activity supported by the Global Fund Round 9. Discussions with stakeholders during the review suggest that the division of labor of size estimation through mapping and implementation of prevention interventions between the two PRs may make it difficult to ensure that districts with the largest risk populations are prioritized for intervention, and districts with smaller risk population size are deprioritized for intervention. Although the mapping and size estimate data for specific districts may not be available immediately, the NSACP and its partners should obtain agreement on an epidemiologically informed criteria used to finalize the districts and resource allocation to specific areas-groups.
- c. If there is evidence to suggest that the “vulnerable” populations addressed by prevention intervention activities do not have elevated risk profiles compared to the general population are prevention interventions for these groups reduced or discontinued? In low prevalence epidemics, only a very small percentage of the general population have specific risk behaviours which put them at elevated risk for HIV. The concept and definition of epidemic potential has been discussed in the earlier section. Without a common understanding or commitment to prioritizing prevention programmes on the groups/locations with the highest epidemic potential, it will be unlikely for programme implementers to refocus their activities strategically on what will make the greatest impact on the epidemic. This is especially true once investments in staffing and infrastructure have been established. Since the World Bank project (2003-2008), the Multi-sectoral unit of the NSACP has continued numerous projects for populations considered vulnerable, including different types of youth, armed forces, police, estate workers, and foreign employment workers. However, without careful assessment of which groups really have disproportionate risk and epidemic potential, substantial effort may be spent on low risk groups when resources for priority populations are limited.

## **2. Monitoring and Evaluation**

### **Selection of appropriate indicators and targets**

Indicators and targets of a national strategy should identify the priorities of the national response and reflect the contribution of key interventions to either prevention of care and treatment goals. The expectation is that ongoing monitoring of the programme achievements against the selected indicators and targets is a critical mechanism for managing the programme effectively. The key indicators of the 2006-2011 national strategic plan reflect the indicators recommended by UNGASS. The SIMU operational plan developed in 2010 notes a weakness of the current set of indicators is the lack of

process monitoring indicators which reflect the ongoing progress toward achievements of different components of the response. The SIMU operational plans also identifies indicators for its own performance including issues of analyzing data and providing feedback to service providers, however no regular assessment of the SIMU performance appears to have been conducted prior to this external review.

Since the formation of the SIMU in 2008, there does not appear to be regularly analyzed and reviewed data corresponding to the national indicators or targets with the exception of producing the biennial UNGASS report or annual Universal Access report. There appears to be little interaction between the SIM and the other programme coordinators in the NSACP regarding the indicators and targets for specific programme areas, nor the types of analysis of routine monitoring data which would be useful for programme management. Similarly, the interaction between the SIM and the prevention intervention (e.g. female sex workers, men who have sex with men, drug users, and prison projects) partners, donors, and technical support agencies appears to be limited.

The SIM team has participated in the development of the Global Fund 9 proposal which has a large number of indicators and targets against which the disbursement of the grant will be based. A limited review of the current indicator list indicates lack of clarity about the intention or expected outcomes of specific interventions. For example, the intervention for Beach Boys selected the numbers of beach boys tested for HIV as the primary indicator for ongoing monitoring. However, a more fundamental aspect of prevention for beach boys, is the number of condoms distributed per beach boy per month. The role of the NSACP, in ensuring that the implementation plan is consistent with the priorities and guidelines to be laid out for the national strategy, has not been clearly defined or agreed upon by stakeholders. Persons interviewed on this issue agreed that there is a lack of operational planning for the interventions by the PRs. One repercussion of this disconnect is a set of indicators which may poorly reflect the expected results of the Global Fund funded activities, and/or targets which may not be realistic and more importantly distract implementers to pursue activities which do not contribute to preventing new infections, in order to maintain funding.

The NSACP and its partners are at a critical juncture with the GF Round 9 funding, in that the second disbursement is contingent on conducting a Monitoring and Evaluation Systems Strengthening Tool workshop and revising the M&E plan on the basis of the results of this workshop. A critical pre-requisite or preparatory step for having a productive workshop is forging the partnership between NSACP, the civil society principal recipients, and the technical support agencies to clarify the model for delivering prevention services to each specific risk group, and to agree on indicators that reflect these approaches. The intervention models agreed upon should be consistent with or comprise a national standard for interventions for that risk group. Similarly, the indicators and approaches for target setting used should be included in the national guidelines for the interventions which are developed. It is likely that an external consultant will be engaged to conduct the Monitoring and Evaluation Systems Strengthening Tool and support in revising the M&E plan accordingly. It is important that these types of consultancies contribute to the capacity development of SIMU staff to be able to facilitate and contribute to the process, rather than be seen as an activity which is outsourced to an external consultant who may have limited experience in the Sri Lankan context and may not be sensitized to the previous discussions or larger programme management context that should influence the focus and priorities of revisions to the M&E system/plan.

During the review, there was some concern that Global Fund would not accept major revisions to the performance based monitoring indicators and targets. Even if the Global

Fund portfolio manager/LFA decline to accept a revised set of indicators and targets, it may still be to the advantage of the NSACP to revise its core set of indicators and targets to ensure they are more relevant to its prevention and treatment goals. In most cases, this will not require changes to the dataset that are already collected and reported, it will mostly require a clearer analysis plan and formats for presenting the indicators. Over time, the GF may re-evaluate their position on the revised indicators and targets when it can be shown that this set is a more effective tool for measuring programme performance and impact on the epidemic.

### **Routine Monitoring Data**

The routine monitoring system is the backbone of effective management of the national programme. These data provide information about critical activities and outputs that help managers to track whether the programme is being implemented as expected or whether further supervision or problem solving is needed at specific sites. The primary routine monitoring data that are received by the SIM include a) the STD clinic data; b) HIV care and treatment data (from 5 sites providing ART); and c) PMTCT data from 2 of the 4 facilities engaged in PMTCT.

Data on the health education and promotion projects under the multi-sectoral units appear to be maintained by the coordinator. Routine quarterly formats sent to the SIMU were not shared with the external review team. Neither were analyses of these data by the SIMU presented. Similarly, data on the health education programmes conducted by MO-STDs and NGOs, as well as condom supply/distribution data are not routinely collected or shared with the SIMU.

Through the review process routine monitoring data from the largest NGO providing services for FSW were obtained and examined. National positivity rates from the blood bank screening programme were available through the SIMU files, but there were no routine data on laboratory quality assurance for HIV testing conducted either through the blood bank system or through the STD clinic system. Neither were data about HIV counselling and testing services with respect to the proportion of individuals who returned for results and received post test counselling or prevention services.

More specific observations about the routine monitoring systems for key programme areas are given below:

#### **STD clinic data**

These data form a rich and long standing source of information about the case rates of STIs (through both clinical and laboratory diagnosis) and characteristics of the STD clinic patients. In some clinics, data are available from the 1950s and 1960s and can be used to chart the achievements of STD control by the programme. In particular, in controlling syphilis and gonorrhoea. The current reporting format is extensive and is based on a collation from clinic registers. Standardized registers were developed and distributed and the reporting format was slightly modified in 2010. Collated data are sent on a quarterly basis to the central SIMU. Data are collated by the public health inspector (PHI) or charge nurse assigned to the clinic, and the report is reviewed and signed off by the supervision MO-STD. One public health investigator interviewed reported it takes him one week to compile each quarterly report at his clinic.

At the central SIMU, the data are entered into an Excel format. A small number of clinics with strong capacity send data entered in the Excel format. At present, the reporting formats are not designed to easily measure key indicators of programme

performance. Neither are the data further analyzed by the SIMU or is feedback to the STD clinics or programme coordinator for STI at NSACP. One MO-STD interviewed noted that an experienced MO-STD would know how to look at the quarterly reports to help improve the management of the clinic, but this is not easy with the current format. Another interviewee suggested that the data from the quarterly reports could be analyzed in a way to produce a few key graphs and figures which would engage the interest of provincial and regional level decisions makers who are the direct supervisors of the MO-STD. In this way the data, if analyzed at a district level, would provide a good advocacy tool to gain more support and underscore the importance of MO-STD in receiving the recommended training and participating in biannual review meetings. At provincial level there is a regional epidemiologist who can support analysis.

Reviewing the data from the 2010 quarterly reports, it is clear that without changing the formats it is possible to calculate a number of important indicators that describe both the progress on STD control and the characteristics of the patient population. (See Annex B) These analyses could be done for each district, disaggregated by sex and provide powerful information with which to better manage the STD programme. There are also ways to streamline the quarterly format to reduce the number of some 300+ cells that must be filled, without severely limiting the utility of the data reported. Upon review of the national annual 2010 report serious data quality errors were noted. These inconsistencies in data were pointed out to the SIMU which planned to review and identify the problems. These errors did not appear to have been identified earlier, suggesting limited attention and use of these data. It is possible that some errors may be the result of having introduced a new format in 2010, as previous annual reports did not appear to have similar problems.

The SIMU coordinator reported that quarterly reports are due by the 20<sup>th</sup> of the month following the end of the quarter. And that 80% of clinic send reports by the deadline, and the rest send their reports within 3 months of the end of the quarter. Analysis of the log indicating when the 2010 quarterly reports were received by each clinic, suggests only 50% of STD clinics send reports within 3 months of the end of the quarter. A primary motivator for following up with clinics to get their quarterly reports is to produce data for the Ministry of Health's quarterly epi bulletin. However, these analyses produce national statistics and are not directly useful for the STD clinic/service provider level.

The SIMU is also in the process of completing a Patient Information Management System (PIMS) for allowing automated STD patient records through a web-based data system. Earlier efforts to roll-out the system were stalled due to the problems in connectivity and stability of the system when multiple users were accessing the system simultaneously. The system generates the current format of the quarterly report to be generated automatically. However, the system is not yet designed to generate reports that are designed for use by MO-STD or clinic managers to improve services. The roll-out of the system is expected in the next few months and will require significant time and effort to install, train staff, trouble shoot and stabilize the system. As is the case for introducing most electronic system, there is a strong risk that the early period of the reliance of the electronic system that the quality of the data may be eroded until users become more familiar with the interface. The time required to enter each patient record into the system has not fully been evaluated. It is also not clear whether the paper register system will be maintained in addition to the electronic system.

In the near future, the STD clinic will play a larger role in service provision for key populations at higher risk with Global Fund Round 9 supported activities about to launch. For example, NGOs will likely refer their beneficiaries to the public-sector clinics for STD related services and HIV testing and counseling. As these service and



referral relationships are developed, it is important that the routine monitoring systems developed are able to track the success and follow-up of these types of referrals, in order to trigger management action in case the referral mechanism is not working. Similarly, the resources of the STD clinic will need to prioritize services for the key populations at risk over outreach services to more general population such as schools, community health camps, and other lower risk groups. Simple tracking formats for this type of health education activity should simply record the date of the session by group, indicating the number of persons attending (See Annex C for an example).

### **HIV care and treatment data**

Quarterly reports from the 5 HIV care and treatment centers come in a streamlined report format. Data entry occurs centrally at the SIMU into an Excel spreadsheet allowing for site specific and “5 center” data. The final report formats are similar to the STD clinic data in that they present the data for a single quarter or year, but the dates is not analyzed to see progress or changes over time. This may reflect a lack of discussion or planning about what indicators or statistics would be helpful for managers at each site to have in order to strengthen services. Issues such as whether the proportion of persons diagnosed with HIV who are enrolled in pre-ART care is an important indicator for ensuring good referral and follow-up among those who are diagnosed with HIV. Another important issue for care and treatment is to consider whether there is any gender bias among those who are enrolled in care, treatment, or in survival among those on treatment. This can be done easily with the existing data reported. (See Annex D for an example).

### **ART cohort analysis**

A critical analysis to determine the effectiveness of ART programmes is to conduct cohort analysis for maintenance on ART at 12 months and 24 months. To facilitate this analysis, standardized registers were developed and introduced in 2010. Because of the small numbers of patients, historical records were entered into the new registers to allow for a complete set of data. Cohort analysis was computed manually during this initial exercise. This approach is manageable due to the small number of patients. To build capacity to use their own data, the SIMU is in the process of training each site in the skills to do the cohort analysis calculations by themselves. Some protocol issues remain to be developed to address the situations in which some patients receive their ART refills through their district STD clinics rather than coming every month to their designated ART center. This will require some communication between STD clinics and ART centers to ensure that patient management records can be completed and patients are not misclassified as loss to follow-up or with inadequate medication. This is a common situation which requires regular contact between the SIMU and programmatic team to ensure the strategic information reflects programme realities and can support the use of data to manage programming. ART cohort data from the five sites show large variation as some of the sites had very few patients compared to the Colombo, Kandy and IDH sites. Interpretation of cohort data needs to take into account the patient denominator and numbers. For example in one site, 2 patients were registered, of whom 1 died. The per cent alive on treatment after 12 months was 50%.

### **Targeted intervention data from nongovernmental organisations**

Routine reporting formats for FSW interventions were described as emanating from UNFPA, the primary donor agencies for FSW prevention activities. These formats were developed through consultation by UNFPA with other stakeholders including the government. The fourth quarter 2010 report from CSDF (the primary NGO implementing FSW programmes) was reviewed. Quantitative routine monitoring data

provided by each intervention site include the # of sex workers provided services, # registered, # of hotspots (by type), # of clinic referrals, and #s of condoms distributed. These data are given as cumulative figures from the beginning of the intervention (in March 2009) and achievements for the current reporting period (i.e. 4<sup>th</sup> quarter of 2010). These data are presented in tabular format. One observation is that the available data may be more informative if they are presented in relation to the expected achievements or targets. For example, the number of condoms distributed can be divided by the number of sex workers registered or who are being provided services. The resulting per capita condom distribution per month is an easier number to interpret because it can be related to the expected number of commercial sex acts per FSW per month. Similarly, it is easier to compare performance across sites, when the number of condoms is standardized to the number of FSW the intervention is serving. Creating reporting formats that support service providers in using, interpreting, and judging their own performance is critical for proactive and effective management of the service. Routine monitoring data must be used more as a management tool rather than as only data to be sent up periodically for reporting purposes. (see Annex E for an example with Quarter 4, 2010 data)

As mapping for FSW, MSM, and drug users moves forward as part of GFATM round 9 supported activities, there is a key opportunity to compare the hotspots and locations which are covered by the interventions and those identified through the mapping process. These types of analyses will help to determine how coverage should be measured (what is the appropriate denominator to judge performance of the NGO, and what denominator is appropriate to assess the likely impact of the intervention on the epidemic. One of the key pieces of analysis in the initial mapping report is to assess the most efficient approach to covering hotspots, e.g. is it possible to cover 50% of the hotspots but to have access to >80% of FSW or MSM by covering larger, higher yield hotspots.

Key opportunity to develop a model cost-efficient programme

Due to the low level HIV epidemic it faces, the Sri Lanka National AIDS programme must make difficult choices about resource allocation for HIV programming vis a vis other health sector and social sector priorities. Continuous assessment and evaluation of the most cost effective approaches for implementing different interventions should be of primary interest to the national programme and the SIMU can support this effort through the use of strategic information to better target and strengthen programming, as well as estimate the cost vs. effectiveness of different aspects of interventions. Applications include, estimating approximate costs for implementing PMTCT in different settings, the most efficient way to conduct mapping, the package of services delivered to key populations at risk (e.g. referral for clinical services, use of drop-in-center facilities, allocation of testing and counseling resources, etc.), streamlining collection and analysis of routine monitoring data, etc.)

### **SIM Recommendations**

1. The HIV surveillance system should be designed to detect areas and groups where an epidemic may be emerging
  - a. More effort and time should be spent in actively collating and analyzing the data from existing systems (STD clinic surveillance, blood bank screening, DAMS, qualitative data from rapid assessments and NGO programme activities, research studies) by district
  - b. When unusual patterns are detected, this should trigger field level action to investigate and assess the epidemic situation

2. Surveillance information should guide program planning/implementation
  - a. Areas and groups where there is evidence of epidemic potential should be used to prioritize and ADJUST intervention areas and resource allocation; Areas and groups where there is evidence of NO epidemic potential should be deprioritized for intervention
  - b. All stakeholders should agree to define epidemic potential in terms of: presence of groups which have multiple sexual partners over a short duration of time; and/or who currently or ever have injected drugs, and are of significant size.
3. SIM should be focused on data use and management action
  - a. Indicators (including GF9) should be revised to reflect the primary intent of the intervention and targets should reflect realistic expectations for achievement.
  - b. Automated systems/tools should generate reports that analyze data and calculate actionable statistics.
  - c. Analysis should be accessible/fed back to service delivery level, including gradual capacity building for using the data.
  - d. National SIM unit must have regular active interaction with programme technical officers for analysis of routine monitoring data.
4. Technical assistance provided/requested must be appropriate for low prevalence epidemics in a middle income country
  - a. Country and donor push-back to consultants/regional office regarding technical inputs that are not adopted for low-prevalence settings.
  - b. Networking with other countries with low level epidemics in AP to compare notes on technical inputs and approaches.
  - c. Phased mapping (e.g. Level 1 mapping in places, Level 2 mapping only in areas where there are large numbers of hotspots)
  - d. Intervention models should be sustainable by government funding
  - e. Micro-planning or intensive outreach only for the sub-groups of FSW, MSM, and DU who are very high risk
  - f. Parallel systems should be well justified in terms of a lack of capacity or resources in other departments/sectors or integrated into the larger health system. (E.g. HIV testing/lab management, HIV care, life skills education, foreign employment workers readiness, etc.)

## **Annex A.**

Example review of evidence for risk among vulnerable populations (besides key populations at higher risk such as female sex workers, men who have sex with men, and drug users)

In low prevalence epidemics, the populations which should be targeted for prevention interventions, i.e. those with epidemic potential, are those which are:

- 1) large in size
- 2) have frequent sex with multiple partners over a short period of time
- 3) and/or have injected drugs for non-medical purposes

When these types of behavioural data are not available, there may be biological markers that indicate risk behaviour, for example higher positivity among those tested for HIV compared to the general population; high rates of STIs as compared to the general population.

The general population is used as a comparison group because if risk behaviours are not at higher levels than the general population, then prevention interventions targeted at these groups may not be the most effective strategy or make the greatest impact on the epidemic trajectory.

These criteria are applied to several populations which have been identified by the national programme as vulnerable populations during the 2006-2011 strategy, but for whom evidence of epidemic potential was not immediately available. Since 2006, a number of studies and assessments have been conducted that provide more insight as to the epidemic potential among this group.

For both vulnerable groups and key populations at higher risk it is also important to recognize that many groups are diverse and there may be segments of the population who are at higher risk, while other segments that do not exhibit the key risk behaviours at levels which are higher than the general population.

For example,

### **Police**

This group has been a target for targeted to create an enabling environment for behaviour change interventions under the multi-sectoral unit of the last national strategy. There are no quantitative or representative studies that describe the sexual or drug taking risk behaviour among police. It not possible to determine whether this group is at risk or not. Training programmes with police forces may have dual objectives: 1) to reduce risk taking behaviours among police personnel and 2) to improve the relationship between police forces and prevention interventions for key populations at higher risk, i.e. creation of an enabling environment.

Current data about the target size of police forces that participate in the earlier interventions were not provided. Estimates given by police representatives during the external review briefing suggested that the currently reached group was approximately 30-40% of the total police force.

### **Recommended Action:**

Simple, short periodic surveys of participants in the intervention (prior to the intervention) can help to gauge the relative importance of risk reduction messages and enabling environment messages that are needed for this target group.

### **Youth – In school**

Behaviour change messages and knowledge about HIV transmission and prevention are delivered through multiple channels implemented by the Ministry of Education. HIV messages are appropriately integrated into life skills education material developed for Sri Lanka as part of the required and elective curriculum. At present, the level of risk behaviour among in-school youth is not well documented.

#### **Recommended Action:**

To evaluate the life skills education programme in terms of knowledge, assessments are conducted annually among students. Discussion with Ministry of Education representatives overseeing the life-skills education work suggested there was interest in adding some confidential risk behaviour questions to assess relative levels of risk behaviour and to measure changes at behaviour outcome level for the overall curriculum.

### **Youth – Vulnerable (e.g. out of school)**

Seven categories of vulnerable youth were identified by the Multi-sectoral unit of NSACP (e.g. youth living on the street, living in slums, migrants, children of migrants, etc.) There are limited focus group based assessments for some groups carried out by the Multi-sectoral unit supported programmes. These focus group discussion reports center on knowledge about HIV transmission and prevention, attitudes with limited information about risk behaviours and concerns of youth besides HIV/AIDS. Other issues to be explored include unplanned pregnancy, sexual or physical abuse/violence, financial stress, substance use, etc.

#### **Recommended Action:**

Due to the current low prevalence of HIV, many of these other concerns will affect and be of appropriately greater concern to the vulnerable youth being targeted. Effective behaviour change communication techniques benefit from acknowledging HIV in the context of these broader concerns which are higher priority for youth. It is important that HIV prevention interventions are synergistic rather than competitive with services addressing higher priority issues affecting youth. If budgets for assessment only afford qualitative studies, it is critical to do more in depth assessments about the broader concerns of youth and to have richer discussion about sexual norms and practices among these groups of youth, in contrast to other youth, e.g. those who are in-school. It may be helpful to triangulate with STD clinic data to look at STD clinic volume among youth in different districts as a proxy for greater risk taking among youth.

## Annex B. Potential Analysis of currently reported STD data:

STD surveillance issues (calculate by sex, by district and compare to national weighted average)

Analysis area	Now possible	Notes about the data
<b>Indicators of STD control</b>		
1a. STD rates per 100000 population (separate for GC, infectious syphilis, genital herpes) over time 1b. STD rates per 100,000 population among those aged 15-24	X	Proxy for trend among general population (to compare to patterns among blood donors for infectious syphilis and Hepatitis B). Also to see if rates among youth are different than among older population
2. NGU rate over time	X	With good STD management, NGU rate among men should decrease; rate among women may or may not decrease
3. Ratio of GUD to non-GUD	X	With good STD management ratio of GUD to non-GUD should be reduced
4. % of confirmed positive VDRL who were treated (by type of specimen: STD clinic patients v. ANC v. pre-employment v. other)	X	Indicates the success of getting patients back for results and treatment
<b>Characteristics of Clinic Population</b>		
5. % of total venereal disease diagnosed among those aged 15-24	X	Indicates whether the infected clinic population is changing and skewing toward young people
6. % of new registered patients with STI among all new registered patients over time	X	Determines whether the population coming for STI clinic is changing over time
7. % of new registered patients with STI among all patients with STD clinic patients <sup>1</sup>	X	Indicates whether clinic patients are chronic high risk group (helps to interpret STD trends)
8. # of SW patients/# of (by gender) patients referred by magistrate	X	Indicates the reason that SW come to clinic and whether arrests are becoming more common among SW
9a. # of clinic visits /# of STD clinic patients <sup>1</sup> 9b. # of clinic visits among SW / # of SW patients <sup>1</sup>	X ~	Provides data on follow-up and repeat visits among patients. Expect SW average to be higher than general STD clinic patient
10a. % of contacts of infectious syphilis treated among all infectious syphilis diagnosed <sup>1</sup> 10b. % of contacts of gonorrhea treated among all gonorrhea diagnosed	X	Indicates whether contact tracing is successful. May or may not be correlated to disease rates

Suggestions to the form:

Area to remove/consolidate	Reduction
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	in cells
Table 1. Consolidate the age categories (<15; 15-19, 20-24, 25-49, >=50)	144
Table 7. Consolidate the age categories (<15; 15-19, 20-24, 25-49, >=50)	144
Table 8. Consolidate the marital status categories to married/unmarried	12
Table 9. Remove or keep only the number that are students?	12-15
Table 10. Confirm that Other is being distinguished from unknown.	--
Table 11. Replace number of condoms available at the end of quarter with total number of condoms distributed, or add number of condoms distributed.	
<b>Total cells that could be eliminated</b>	Up to 318

**Annex C. Sample format for recording data on Health Education Programmes given by the MO-STDs**

Health Education and Outreach Programmes - _____ Quarter _____ Year _____ Clinic _____							
	FSW	MSM	DU/IDU	Prisoners	Clients of SW	Others/ Gen pop	
Date							
# attending							
Date							
# attending							
Date							
# attending							
...							
Total # of sessions	A	B	C	D	E	F	
Total # of attending	G	H	I	J	K	L	
% of sessions per group (row %)	(A/sum of A-F)	(B/sum of A-F)	(C/sum of A-F)	(D/sum of A-F)	(E/sum of A-F)	(F/sum of A-F)	
% of attendees per group (row %)	(G/ sum of G-L)	(H/ sum of G-L)	(I/ sum of G-L)	(J/ sum of G-L)	(K/ sum of G-L)	(L/ sum of G-L)	



#### Annex D. Example of gender analysis with current HIV care and treatment data

Currently, the routine care & treatment report includes data by male and female. Ideally, the ratio of male to female among reported HIV cases, those enrolled in care, and those enrolled in treatment should be equal. The mortality rate among men and women on treatment would also be expected to be equal.

\*Cumulative up to 2010

	M:F
HIV cases reported*	1.47
enrolled in pre-ART care*	1.44
enrolled into ART*	1.53
12-month mortality rate among those enrolled on ART in 2009	1.06

Similar analyses can be conducted to determine whether there are differential rates of enrollment in pre-ART care, treatment or mortality among key populations at risk (e.g. FSW, MSM, or IDU) compared to other cases.

These patterns may change over time, and it would be useful to calculate these statistics for recent periods of enrollment. However, it is important to interpret observed differences taking small sample sizes into consideration. An alternative approach to this analysis is to compute three year running averages due to small sample sizes.

**Annex E. Example of further analysis existing routine monitoring data from NGOs implementing interventions for FSW**

	Data provided in the quarterly reporting format			Statistics available data in quarterly format		
	# FSW provided relevant services	# FSW registered	4Q 2010 condom distributed	Monthly condom per FSW served	Monthly condom per FSW registered	% registered of served
CSDF Gampaha & Colombo	3448	1190	62002	6.0	17.4	34.5%
RGP	–					
Anuradhapura	231	231	4267	6.2	6.2	100.0%
ECDIC	–					
Rathnapura	186	186	15846	28.4	28.4	100.0%
WGSP	–					
Kurunegala	109	94	2352	7.2	8.3	86.2%
LSS – Kandy	115	91	2850	8.3	10.4	79.1%
CEF – Puttalam	114	95	180	0.5	0.6	83.3%
HNRDF – Galle	178	178	1300	2.4	2.4	100.0%
SLHDF	–					
Polonnaruwa	117	93	1759	5.0	6.3	79.5%
Total	4498	2158	90556	6.7	14.0	48.0%