

REPORT ON HIV SENTINEL SURVEY – 2001

HIV sentinel surveys are cross-sectional studies of HIV sero prevalence carried out at regular intervals among selected groups in the population known as "sentinel groups" at selected sites. Its main objective is to monitor trends of HIV infection over time, by population groups and by site. The National STD/AIDS Control Programme (NSACP) of Sri Lanka has been conducting this surveillance activity since 1993 on an annual basis according to the guidelines given by the World Health Organization (WHO).

Duration and Sentinel sites : In the year 2001 the survey was conducted for a period of six months from 1st May to 31st October in the following seven sentinel sites.

1. Colombo
2. Kandy
3. Galle (included samples from Matara)
4. Ratnapura (included samples from Kegalle)
5. Kurunegala (included samples from Chilaw)
6. Anuradhapura (included samples from Polonnaruwa)
7. Badulla.

Sentinel groups : Only three sentinel population groups were included in this year's survey.

1. STD Clinic attendees (STD)
2. Female sex workers (FSW)
3. Patients diagnosed with tuberculosis (TB) - Patients with Tuberculosis were enrolled only in 3 sites, namely : Colombo, Kandy and Galle sentinel sites.

Method of testing : HIV testing was done on unlinked anonymous basis.

Sample size : WHO recommends a minimum sample size of 250 for high risk groups and 400 for low risk groups. following minimum sample sizes were decided in advance but sample collection continued till the end of survey period (ie. 31st October 2001)

	Colombo	Kandy	Galle	Ratnapura	Kurunegala	A'pura	Badulla
1. FSW	400+	250+	250+	250+	250+	250+	250+
2. STD	500+	250+	250+	250+	250+	250+	250+
3. TB	250+	250+	250+	-	-	-	-

Laboratory testing strategy : HIV testing of blood samples were done as follows. Serum was first tested with ELISA or Particle Agglutination Assay. Samples that were reactive on the first assay were considered positive and non-reactive were considered HIV antibody negative.

Training and Supervision : This survey was carried out at seven sites in different provinces. Hence it was important to ensure uniformity at all sites. To train staff in all sites, one day workshop was held prior to the survey. The protocol prepared for the survey in year 2001 was discussed in detail in this workshop.

Supervisory visits were made to all sentinel sites by a team of officers from the Central STD Clinic while the survey was in progress. The supervisory team comprised of senior medical personnel and a senior laboratory technician. A standard checklist was completed during each visit.

Recruitment of FSW was not satisfactory in Kurunegala and Kandy. Shortage of vacutainers and gloves were identified in Anuradhapura clinic and arrangements were made with the central laboratory to solve it.

Results

A total of 7237 blood samples were tested. Of these 8 samples were found to be HIV positive. 5 were from STD clinic attendees, in five sites ie. Galle, Colombo, Kurunegala, Badulla, Anuradhapura. 2 were from FSW in two sites Kurunegala and Ratnapura, 1 from a TB patient in Kandy sentinel site.

Badulla and Anuradhapura had enrolled the required sample size for FSW. Other sites had enrolled less than required minimum sample sizes. Kandy was the lowest. It was one fifth of the required sample size.

Enrolment of TB patients was satisfactory in all three sites Kandy, Colombo & Galle. One TB case was positive in Kandy sentinel site.

Table 1 Summary of HIV positives found in the sentinel survey – 2001

Case No.	Sentinel Site	Sentinel Group	Age (years)	Sex
1	Galle	STD	19	Male
2	Colombo	STD	24	Female
3	Kurunegala	STD	41	Female
4	Kurunegala	FSW	32	Female
5	Ratnapura	FSW	43	Female
6	Badulla	STD	34	Male
7	Kandy	TB	53	Male
8	Anuradhapura	STD	28	Female

There were 8 HIV positives of which 5 were women and 3 were men. All sites had 1 HIV positive each and Kurunegala had 2 positives. Among the HIV positives in Kurunegala, 1 positive from STD and 1 from female sex workers. Majority of those were from the STD group. Of the total HIV positive samples (8), 5 were from STD clinic attendees and 2 from female sex workers. A 53 year old male patient, with Tuberculosis was also detected to be HIV positive from Kandy.

Compared to the previous sentinel surveys, this year more HIV positives were detected.

Table 2: HIV test results by sentinel sites and sentinel groups

Sentinel Site	Sentinel Groups						
	STD			FSW		TB	
	No. tested	No. +		No. tested	No. +	No. tested	No. +
Anuradhapura	268	1 0.4%		250	0	0	0
Badulla	374	1 0.3%		252	0	0	0
Colombo	1702	1 0.05%		243	0	276	0
Galle	801	1 0.1%		211	0	250	0
Kandy	700	0		55	0	363	1 0.3%
Kurunegala	680	1 0.2%		187	1 0.53%	0	0
Ratnapura	412	0		213	1 0.5%	0	0

Table 2 denotes the number of persons tested and the results of the tests by sentinel sites and sentinel groups. All sentinel sites were able to recruit more than the minimum required sample size with regard to STD patients and HIV positives were detected among this group from 5 sites.

The recruitment of female sex workers has been unsatisfactory. Kandy, Kurunegala, Galle, Ratnapura & even Colombo were unable to recruit 250 female sex workers. Many raids were conducted on brothels/massage parlours by the Police during this period particularly in Colombo. This may have contributed to the inability to recruit the minimum sample sizes for FSW. Two HIV positive samples were detected among sex workers from Kurunegala (0.53 %) and Ratnapura (0.47%) each.

The recruitment of patients with Tuberculosis was satisfactory in all 3 sentinel sites that screened TB patients.

Table 3: STD clinic attendees by age groups and sentinel sites.

Sentinel Site	Age group (years)						Total	
	0-14		15-49		50+			
	No.	%	No.	%	No.	%	No.	%
Anuradhapura	2	0.7	259	96.6	7	2.6	268	100.0
Badulla	2	-	346	96.6	12	3.4	358	100.0
Colombo	4	0.2	1603	94.9	82	4.9	1689	100.0
Galle	5	0.7	710	93.5	44	5.8	759	100.0
Kandy	7	1.0	639	91.3	54	7.7	700	100.0
Kurunegala	-	-	589	92.3	49	7.7	638	100.0
Ratnapura	1	0.2	354	87.4	50	12.3	405	100.0

Table 3 indicate STD clinic attendees by age and sentinel site. Over 90% of STD patients were between 15- 49 year age group except in Ratnapura. In Ratnapura, 12% of sample was over 50 years of age.

Table 4: STD clinic attendees by age group and sex

Sex	Age group in years						Total	
	0-14		15-49		50+			
	No	%	No	%	No	%	No	%
Male	7	0.2%	2836	92.3%	228	7.4%	3071	100.0%
		36.8%		63.0%		76.5%		63.8%
Female	12	0.7%	1664	95.3%	70	4.0%	1746	100.0%
		63.2%		37.0%		23.5%		36.2%

Table 4 indicate the majority of STD attendees were males. Majority of both males and females were in sexually active age group.

Table 5: Female sex workers by age groups and sentinel sites

Sentinel Site	Age group (years)						Total	
	0-14		15-49		50+			
	No.	%	No.	%	No.	%	No.	%
Anuradhapura	-	-	247	98.8	3	1.2	250	100.0
Badulla	4	1.6	247	98.0	1	.4	252	100.0
Colombo	-	-	242	99.6	1	.4	243	100.0
Galle	1	0.5	204	97.6	4	1.9	209	100.0
Kandy	-	-	53	96.4	2	3.6	55	100.0
Kurunegala	-	-	187	100.0	-	-	187	100.0
Ratnapura	-	-	207	98.1	4	1.9	211	100.0

Table 5 shows female sex workers enrolled in the survey by age group and sentinel site. Over 96% of female sex workers were in 15-49 age group.

Table 6: TB patients by age group and sentinel sites

Sentinel Site	Age group (years)						Total	
	0-14		15-49		50+			
	No.	%	No.	%	No.	%	No.	%
Colombo	-	-	166	60.1	110	39.9	276	100.0
Galle	1	.4	141	60.3	92	39.3	234	100.0
Kandy	4	1.1	219	60.3	140	38.6	363	100.0

Table 6 indicate age group and sentinel sites of TB patients who were enrolled in the survey. Over 60% of TB patients were in the 15-49 age group.

Table 7: TB patients by age group and sex

Sex	Age group in years						Total	
	0-14		15-49		50+			
	No	%	No	%	No	%	No	%
Male	2	.3%	365	58.6%	56	41.1%	623	100.0%
	40.0%		69.4%		74.9%		71.4%	
Female	3	1.2%	161	64.4%	86	34.4%	250	100.0%
	60.0%		30.6%		25.1%		28.6%	

Table 7 indicate age group and sex of TB patients who were enrolled in the survey.

Comments

During the 2001 sentinel surveillance, 5 STD clinic attendees, 2 female sex workers and a single patient with tuberculosis was detected to be HIV antibody positive. The number of HIV positives detected in this survey has exceeded those in the 2000 survey when only 5 positives were detected.

However, when compared with the results of surveys carried out in year 2000, there is no obvious change in the trend.

Currently, Sri Lanka is classified as a low prevalence country for HIV infection. Findings of this survey are compatible with this classification. While HIV sero surveys could be continued annually at the present sites an attempt should be made to establish new sites in North & Eastern province in year 2002. In addition, Behavioural Surveillance Surveys will be carried out in near future.

Acknowledgements

The NSACP wishes to thank the WHO for funding this activity as it has done in the past. Guidance given by WHO Co-ordinator/HIV-AIDS Dr. A.V.K.V. de Silva is appreciated. We take this opportunity to thank all staff of the STD clinics and the Chest clinics for their valuable assistance in conducting this survey.

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17.05.2002

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 7. MOIC/STD Colombo, Kandy, Galle, Ratnapura, Kurunegala, Badulla & Anuradhapura
 8. MOIC/Chest Clinics Welisara, Kandy, Galle, Ratnapura, Kurunegala, Badulla & Anuradhapura
 9. Pathologists - Kandy, Galle, Ratnapura, Kurunegala, Badulla & Anuradhapura
 10. Venereologists and Microbiologist/NSACP