

SENTINEL SURVEILLANCE FOR HIV IN SRI LANKA - 1993

INTRODUCTION

The prevention and control of HIV/AIDS depends on the prevention of new HIV infections. The incidence (number of new infections over a defined period) is almost impossible to measure directly for surveillance purposes. HIV prevalence rates could be taken as an indirect measure of HIV incidence.

The purpose of sentinel surveillance is to monitor trends in the epidemiological patterns of infection over time.

According to the National AIDS policy, as laid down in the MTP, an on-going programme of sentinel surveillance takes place whereby selected population groups are tested every six months for HIV antibodies.

Sri Lanka is made up of nine provinces. Presently sentinel surveillance takes place in four sentinel sites located in the major cities of four of the nine provinces:

Colombo - Western Province
Kandy - Central Province
Galle - Southern Province
Ratnapura - Sabaragamuva Province

These sites were selected as they were known to have large population groups with high risk behaviour. HIV screening had been performed in these sites the previous two years. Peoples in relevant categories were deemed available, and blood samples were routinely being drawn for purposes other than for HIV testing from these persons.

The population groups selected for screening are:

High risk groups : Female prostitutes
STD patients

Medium risk groups : TB patients

Low risk groups : Blood donors
ANC attenders

A round of sentinel surveillance was to continue for six weeks during which time the predetermined sample would be obtained. However the period of sampling had to be extended due to certain reasons (see constraints).

The sample sizes and the method of blood collection are given below:

| | Colombo | Kandy | Galle | R'pura | Mtd |
|--------------------|---------|-------|-------|--------|-----|
| Female prostitutes | 200 | 100 | 100 | 100 | vc |
| STD patients | 200 | 100 | 100 | 100 | vc |
| TB patients | 200 | 100 | 100 | 100 | ua |
| Blood donors | 600 | 600 | 600 | 600 | ma |
| ANC attenders | 600 | --- | --- | --- | ua |

vc - voluntary confidential
ma - mandatory

ua - unlinked anonymous

RESULTS

✓ The first survey carried out in 1990 did not yield useful information. Sample sizes varied widely and the methods used for testing were not the same. Moreover different sentinel populations were screened at different sites.

✓ A fresh round of surveillance following W.H.O. guidelines and advice was made in January 1993, and a second round initiated in August the same year.

Table 1. SENTINEL SURVEILLANCE IN SRI LANKA
Results of the January 1993 survey.

| | Colombo | | Kandy | | Galle | | R'pura | |
|-----|---------|---|-------|---|-------|---|--------|---|
| STD | 205 | 0 | 100 | 0 | 198 | 0 | 50 | 0 |
| CSW | 213 | 0 | 100 | 0 | 23 | 0 | 07 | 0 |
| TB | 103 | 0 | 100 | 1 | 84 | 0 | 10 | 0 |
| BD | 718 | 0 | 600 | 0 | 504 | 0 | 355 | 0 |
| ANC | 600 | 0 | --- | | 600 | 0 | --- | |

CSW - commercial sex workers
BD - blood donors
ANC - ante-natal clinic

The prevalence of HIV infection among patients with TB who were screened in Kandy was 1%

TABLE 2. SENTINEL SURVEILLANCE IN SRI LANKA
Results of the August 1993 survey

| | Colombo | | Kandy | | Galle | | R'pura | |
|-----|---------|----|-------|---|-------|---|--------|---|
| STD | 200 | 0 | 100 | 0 | 133 | 0 | 79 | 0 |
| CSW | 200 | 1* | 100 | 0 | 08 | 0 | 46 | 0 |
| TB | 200 | 0 | 100 | 0 | 82 | 0 | 55 | 0 |
| BD | 600 | 0 | 400 | 0 | 438 | 0 | 429 | 0 |

STD - sexually transmitted diseases
CSW - commercial sex workers
BD - blood donors

TB - Tuberculosis

The HIV sero prevalence among the prostitutes screened in Colombo was 0.5%. There were however 3 blood samples which were haemolysed (one from a prostitute and two from TB patients) in Colombo that gave positive results on the screening test (ELISA). Two of these were tested negative on confirmatory testing with the Western Blot. For purposes of analysis all three samples were considered negative. In Colombo, the refusal rate for HIV testing amongst STD patients was 1%.

CONSTRAINTS

- * Inability to enrol the specified sample size from the high risk group and medium risk groups within the specified time period, particularly from Galle and Ratnapura was the major constraint.
- * Blood samples reaching the laboratory in a haemolysed state unsuitable for testing. This was probably due to the fact that the vacutainer tubes used for blood collection had contained a few drops of water due to incomplete drying. Due to a temporary shortage, tubes had to be recycled.
- * In Ratnapura, blood samples from STD patients were collected by the unlinked anonymous method, whereas in the rest of the sentinel sites, the method used was voluntary confidential testing. Very few patients with STDs are attending the STD clinic at Ratnapura. The co-operation of General Practitioners (GPs) in Ratnapura was requested to carry out this component of the surveillance. Hence, blood was collected on an unlinked anonymous basis.

RECOMMENDATIONS

- * To conduct sentinel surveillance once a year and to extend the duration of the survey until the recommended sample size from the respective sentinel population groups could be enrolled. This would necessarily mean that the outcome of the survey would result in period prevalence as opposed to point prevalence data.
- * To enrol only male STD patients and to increase the number of STD patients appropriately (e.g., 400 male STD patients from Colombo and 200 from Kandy). The rationale for this change is that the majority of the female STD clinic attendees are female prostitutes and these persons form a separate sentinel population.
- * To increase the number of sentinel sites. Presently, sentinel sites are located in the major cities of four of the nine provinces, Western Province (Colombo), Central Province (Kandy), Southern Province (Galle), and Sabaragamuwa Province (Ratnapura).
It is recommended that two more sentinel sites be included from 1994 to represent two more provinces ie. North Central (Anuradhapura) and North Western (Kurunegala).