Executive Summary
Prevalence of STI Among Truckers and Helpers

The AIDS Prevention And Control [APAC] Project funded by USAID and administered by Voluntary Health Services (VHS) has 11 Projects of 'Prevention Along The Highway' [PATH] specifically targeting the truckers and helpers in Tamil Nadu and Pondicherry. APAC brought together a consortium of institutions with different strengths to study the prevalence of STI among Truckers and Helpers in the area of activity. The following partners participated in the study as consortium members: 1).SevaNilayam, 2). Department of Biostatistics, Christian Medical College, 3).Y R Gaitonde Center for AIDS Research and Education (YRG CARE-VHS) 4). Dr. A.L. Mudaliar Post Graduate Institute of Basic Medical Sciences (PGIBMS), University of Madras, Chennai, and 5) Department of Public Health (DPH), Government of Tamil Nadu.

OBJECTIVES OF THE STUDY

i) *To determine the prevalence of selected Sexually Transmitted Infections including HIV among Truckers and Helpers, namely Syphilis, Gonorrhea, Chlamydia, Chancroid, Herpes simplex virus 2, HBV and HIV.*

ii) *To assess prevalence of the following syndromes of STIs: Genital Ulcers, Urethral discharge, Inguinal bubo and Scrotal swelling.*

METHODOLOGY

Selection of a site: *Study participants were recruited from 10 areas where APAC has ongoing intervention programs among Truckers and Helpers in the districts of Trichy, Karur, Vizhupuram, Madurai, Chennai and Dharmapuri (Fig.1). The sampling frame was developed on the basis of the mapping conducted by APAC NGO partners in 2003. Each halting points or 'dhaba' was considered as a cluster. One cluster from each intervention site of APAC program for Truckers and Helpers was selected at random from the list of sites.*

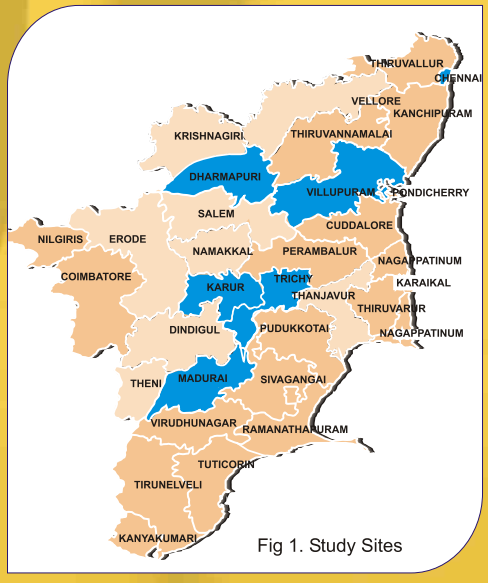

Fig 1. Study Sites

Sampling : *Men driving trucks or assisting drivers, along the transport routes were included. Using respondent driven sampling, first 30 of the identified TH were included in the study. Sample size calculations showed that 300 subjects provided a precision of 6-7% with 95% CI based on a prevalence of 25%. General health camp approach was*

adopted to collect data from the TH. Structured questionnaire was used to collect information from each study participant on socio-demographic details including patterns of sex trade, sexual behaviour, risk factors. Clinical examination was done with special emphasis to identify STI syndromes of genital ulcers, urethral discharge, inguinal bubo and scrotal swelling. Urethral swabs (2), blood (plasma and serum) and urine specimens were collected from the study participants.

Risk factors were assessed with data obtained from a questionnaire. Analysis was carried out for individual STI conditions and for any STI/HIV with key demographic variables (area, sex, age, education, occupation) and sexual/behavioral variables (Blood transfusion, number of injections, disposable needles, condom use, number of sexual partners, sex with women in prostitution).

QUALITY ASSURANCE

- *Methodology of clinical examination, specimen collection, transportation of specimens and laboratory procedures was standardized in a three-day workshop.*
- *Thorough scrutiny of all the data sheets at each campsite by the camp supervisors.*
- *Double entry of the data in the database.*
- *Laboratory test kits were standardized by the testing and the reference laboratory.*
- *10 % of the serum, plasma swab and urine samples were analysed at the the Dept. of Microbiology, Dr. ALMPGIBMS (University of Madras) as part of external quality assurance.*

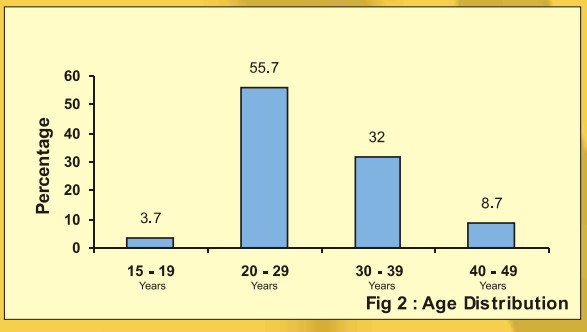

Fig 2 : Age Distribution

FINDINGS

Socio-demographic Profile:

There were 300 truck drivers and helpers who participated in the study. 178 (59.3%) of them were urban areas while 122 (40.7%) were from rural areas. Nearly 88% of the population was in the age group of 20-39 years (Fig. 2). More than 50% of the study population had high school education with only 4.9% being illiterate.

Risk behaviour: *Some of the practices that put them at risk included regular use of alcohol (65%), smoking (60%), skin tattooing (18%) and use of non-disposable needles for injections (19.3%). (Fig.3)*

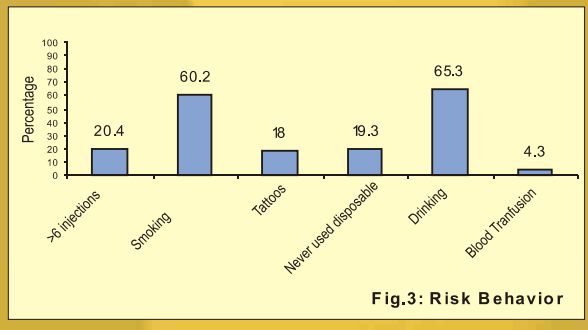

Fig.3: Risk Behavior

Sexual behavior : *Among the 300 truck drivers and helpers, 63.4% had more than one sexual partner. Only 1.3% had no sexual partners. Of the study participants, 56 % reported sex with casual (non paid) partners while 24.2% had sex with Women In Prostitution [WIP]. Among those who had sex with WIP, 89.5% used condoms in their last sexual encounter while only 39.3 % used condom with non-paid partners.*

Among the unmarried study participants, there were 21/117 (17.9%) who had sex with WIP in the last one-year and 42/117 (35.9%) who had sex with non-paid partners.

Frequent travel (56.2%), lack of privacy (56.2%) and conflict (50.6%) were the most cited reasons for times when sex is not possible with spouse.

Clinical findings:

Symptoms as reported by study participants: Genital symptoms for STI experienced were reported by 58 (19.3%) of the study participants. The prevalence of dysuria (63.8%) was the commonest complaint among truck drivers and helpers, however, genital discharge (3.4%), genital swelling (5.2%) and genital ulcer (0.3%) were also reported.

Clinical examination was done for 298 study participants. 2 (0.6%) of the study participants refused genital examination. Syndromes for STI were noted in 6.9% (21/298) of the study participants. ***Genital discharge*** *was not noted in any of the study participants.* ***Genital Ulcers*** *was seen in 6(2.0%) of the study participants.* ***Inguinal Bubo*** *was noted in 3 (1%), and* ***Scrotal swelling*** *in 3.6 % of the study partcipants*

Lab findings:

The overall prevalence of any STI [Gonorrhea, Syphilis, Chlamydia, Chancroid, HSV2 HIV, Hepatitis B] was noted in 15% (n=300) of Truckers and Helpers. Among those who had lab confirmed STI, 62% had a non-viral STI (Fig. 4).

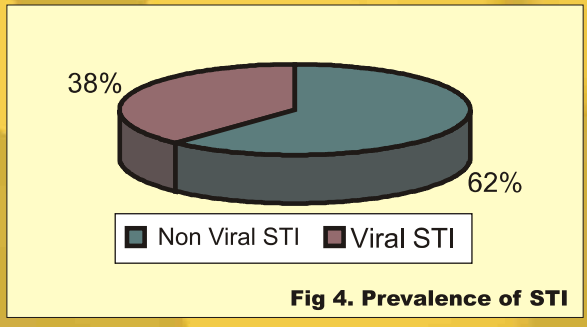

Fig 4. Prevalence of STI

Table1 shows the prevalence of individual STI conditions and its distribution by age and residence. The prevalence of Chlamydia was found to be the highest at 5.2%. HIV, Hepatitis B and Syphilis had a prevalence of 4.1%, 3% and 3% respectively. 1.3% had Gonorrhea while none were found positive for HSV2 or Chancroid.

Table 1: Prevalence of STI in TH

Type of STI	Prevalence (%)	Location		Age group (years)			
		Rural	Urban	15-19	20-29	30-39	40-49
Syphilis *(TPHA & RPR)*	3.0	4.1	2.2	-	1.8	5.2	3.8
Gonorrhea *(Culture)*	1.3	0.8	1.7	-	1.8	-	3.8
Chalmydia *(PCR)*	5.2	5.2	5.2	30.0*	5.6	3.3	-
HIV *(Double Elisa)*	4.1	6.0	2.9	-	3.7	6.5*	-
HBV *(Elisa HbsAG)*	3.0	3.3	2.8	9.1	4.2	1.0	-
Chancroid *(Culture)*	0.00	-	-	-	-	-	-
HSV2 *(Elisa IGM)*	0.00	-	-	-	-	-	-
Any STI	15	17.2	13.5	27.3	15.6	14.6	7.7

*p<0.05

SUMMARY

- *The overall prevalence of STI among Truckers and Helpers was 15% and was significantly related to number of sexual partners.*
- *The prevalence of STI did not differ significantly for the urban/rural areas.*
- *Chlamydia (5.2%); HIV (4.1%), Syphilis (3%) and Hepatitis B (3%) were the most prevalent STI among this population. Chlamydia was noted to be high in the 15-19 years but there were only 11 study participants in that age group.*
- *The overall HIV prevalence was 4.1% and was significantly more among the less educated group (7%) as compared to those who had completed school (4%).*
- *Those subjects who visited women in prostitution during the last one year had a significantly higher level of HIV (13%) than those who did not (3%).*
- *More than 60% of Truckers and Helpers in Tamil Nadu have high-risk health behavior with regular use of alcohol, smoking and multiple sexual partners (50%).*
- *Condom use with casual (non-paid) partners is observed to be low (39.3%). Addressing the need to use condoms with casual partners is an emerging concern.*

MESSAGES FOR PREVENTION PROGRAMS

- *Promoting early detection of STIs.*
- *Refocus the efforts of preventing STIs in rural areas.*
- *To strengthen the present strategy of syndromic management.*