

## Profile Of HIV Positive Clients In An ICTC Of A Private Medical College, Andhra Pradesh: A Situational Analysis

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**Abstracts:** Background: HIV/AIDS has turned out into global pandemic. In India under National AIDS Control Program (NACP) –III Integrated Counseling and Testing Centers (ICTC) were established throughout the country for providing prevention services through a holistic approach for all segments of the population. Objectives: To study the sociodemographic profile and risk behavior pattern of clients diagnosed HIV positive in the ICTC. Material & method: Study Design: Cross-sectional study (record based) Setting: Medciti Institute of Medical Sciences, Andhra Pradesh. Subjects- All the 448 seropositive attendees during the year 2007-2010. Data pertaining to total 8845 clients, who availed the services from the ICTC during the above period was assessed for the time trend of HIV infection .Study Variables- Year of reporting, in-referral of the clients, age, sex, educational status, marital status, occupation and pattern of risk behavior in relation to HIV/AIDS. Statistical analysis- Data was analyzed in SPSS version 17.0 . Results: HIV prevalence was found to be declining over the last 4 years, except in 2008. Among the seropositives 62.7% were males and 37.3% were females. 85% were in the reproductive age group 78.1% were married;53.1% were illiterates. Majority of them are labourers from the agricultural background and housewives. In 83.9% of the individuals it is acquired through unprotected heterosexual intercourse. Conclusion- These findings should call for greater introspection among the program managers and facilitate for more customized local planning involving various stakeholders. [Kommula V et al NJIRM 2012; 3(2) : 36-40]

**Key words:** Andhra Pradesh, Epidemiological profile, HIV/ AIDS, ICTC clients

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**Introduction:** AIDS has evolved from a mysterious illness to a global pandemic which has infected tens of millions in less than 20 years.<sup>1</sup> According to UNAIDS (2010) Global report in the world the number of people living with HIV are 33.3 million. Since 1997, the year in which annual new infections peaked to 3.2 million cases globally has fallen by 21% and reached to 2.6 million in 2009. This reduction in HIV incidence reflects natural trend of epidemic as well as the result of prevention programmes resulting in behavioural changes in different contexts.<sup>2</sup>

The total number of people living with HIV/AIDS (PLHA) in India is estimated as 23.9 lakh in 2009. Most infections occur through heterosexual route of transmission. However in the north-eastern region, injecting drug use is the major cause for the epidemic spread.

The adult HIV prevalence at national level has continued its steady decline from estimated level of

0.41 percent in 2000 through 0.36 percent in 2006 to 0.31 percent in 2009. All the high prevalence states show a clear declining trend in adult HIV prevalence. However, the low prevalence states of Chandigarh, Odisha, Kerala, Jharkhand, Uttarakhand, Jammu & Kashmir, Arunachal Pradesh and Meghalaya show rising trends in adult HIV prevalence in the last four years.<sup>3</sup>

The decline is resultant of many interventions planned and implemented under national AIDS control programme. In 2007 NACP- III was launched for 5 years (2007-2012). The primary goal of NACP – III is to halt and reverse the epidemic in India over the next 5 years by integrating programmes for prevention, care, support and treatment.<sup>4</sup>

Integrated Counseling & Testing Centre (ICTC) is one of such interventions under NACP-III, which provided great impetus to the prevention programs for the general population. This is a holistic approach to address all segments of the community

for providing “Continuum of care in HIV/AIDS” by means of counseling & testing services, referral, outreach and follow up.

Under this current study we are aiming at analyzing the epidemiological profile of the clients diagnosed HIV positive in our ICTC with an intension of getting some scientific insight into the demographic and socioeconomic factors leading to the HIV epidemic in this part of the state.

**Material and Methods :** The current study was based on the data from the ICTC functioning in a rural private medical college i.e., Medici Institute of Medical Sciences (MIMS), Rangareddy district of Andhra Pradesh during period January 2007 to December 2010. The study was approved by institutional ethical committee. This ICTC was established in the last quarter of 2006 as a public private partnership model (PPP) and was monitored by Andhra Pradesh State AIDS Control Society (APSACS). Even though ICTC provides services to all segments of the community, the current study is focused only on the non-pregnant

females, males and children who were diagnosed HIV positive in the facility. HIV was diagnosed by performing Enzyme Linked Immunosorbent Assay (ELISA) by two different antigens and a rapid test as recommended by NACO. The data on the year of reporting, age, sex, marital status, socioeconomic status, risk behaviour and the in-referral of the clients, were collected from the ICTC registers prescribed by National AIDS Control Organization (NACO). Data was entered and analyzed using SPSS software version 17.0

**Result:** Total clients provided counseling and testing services during 2007-2010 were 8845 and among them 448 (5.1%) were diagnosed to be HIV positive. The HIV positivity among males was found to be 5.9% and among females it was 4.1%. It is also observed that in 2008, the no. of clients attended the ICTC has decreased compared to the previous year for both males and females and at the same time the HIV positivity has increased. Among the HIV positive clients 62.7%(281) were males and 37.3% (167) were females. (Table1)

**Table -1: Showing the year and sex-wise distribution of clients tested and diagnosed HIV positive**

Year	Male Tested	Male positive(%)	Female Tested	Female-positive(%)	Total tested	Total Positive(%)
2007	1240	87(7.0)	1363	45(3.3)	2603	132(5.1)
2008	518	69(13.3)	435	48(11.0)	953	117(12.3)
2009	1020	60(5.9)	656	38(5.8)	1676	98(5.8)
2010	1955	65(3.3)	1658	36(2.2)	3613	101(2.8)
Total	4733	281(5.9)	4112	167(4.1)	8845	448(5.1)

Table 2 shows the sociodemographic profile of positive clients. 83.3% of males and 87.4% females belonged to the age group of 15-49 years. Majority of the males (86.1%) and females (64.7%) were married. Among females 20.3% were widows in males 3.2% were widowers.

Literacy rate was higher among males (51.6%) compared to females (38.9%). Only 9.6% of males and 6.6% of females were educated college and above. Majority of the females (40.7%) were housewives where as among males majority (39.8%) of them were agricultural workers.

8.6% of them did not reveal their risk behaviour. 83.7% claimed it to have acquired through unprotected heterosexual route followed by 4%

through parent to child transmission, 1.3% through usage of infected syringes/ needles, 1.1% through blood transfusion and 1.3% through homosexual behaviour. (Table 3)

Majority (55.1%) of them had attended the ICTC voluntarily and 36% of them were referred by various clinical departments of the hospital. The DOTS clinic attached to the hospital contributed 5.3% and the STD clinic only 3.6% among the HIV positive clients.

**Discussion:** The HIV prevalence of Andhra Pradesh among the ICTC clients showed a gradual decline from 10.4% in 2008 to 6.1% in 2010. In the concerned ICTC the finding corroborated the

overall declining trend from 5.1% in the year 2007 to 2.8% in 2010

**Table-2:Socio demographic profile of HIV positive clients**

Variables		Male(%) N=281	Female(%) N=167
Age	0-14	8(2.8)	10(5.9)
	15-30	75(26.7)	78(46.7)
	31-49	159(56.6)	68(40.7)
	50 and above	39(13.9)	11(6.6)
Marital Status	Single	24(8.5)	23(13.8)
	Married	242(86.1)	108(64.7)
	Divorced	6(2.1)	2(1.2)
	Widow / Widower	9(3.2)	34(20.3)
Education	Illiterate	136(48.4)	102(61.1)
	Primary	74(26.3)	38(22.7)
	Secondary	44(15.6)	16(9.6)
	College & above	27(9.6)	11(6.6)
Occupation	Unskilled	61(21.7)	33(19.8)
	Semiskilled / Petty Business	46(16.4)	6(3.6)
	Salaried	32(11.4)	10(5.9)
	Driver	24(8.5)	0(0)
	Agricultural workers	112 (39.8)	44(26.3)
	students	6(2.1)	6(3.6)
	Housewife	0(0)	68(40.7)

**Table 3 :Pattern of risk behaviour among the HIV positive clients**

Route of transmission	Male (N= 281)	Female (N= 167)	Total (N=448)
Heterosexual	242(86.1%)	133(79.6%)	375(83.7%)
Homosexual	6(2.1%)	0(0%)	6(1.3%)
Blood transfusion	2(0.7%)	3(1.8%)	5(1.1%)
Infected syringes /needles	2(0.7%)	4(2.4%)	6(1.3%)
Parent to child	8 (2.8%)	10(6.0%)	18(4.0%)
No response	21(7.6%)	17(10.2%)	38(8.6%)

The decline in prevalence during these years may be attributed to mere dilution due to progressive increase in the denominator also. So attempt has to be made to improve the testing productivity through improved referral from various key populations like migrants population from the adjacent factories, DOTS clinics (RNTCP), STD clinics, high risk pockets from the catchment area and spouses / partners of the already diagnosed HIV positive people.

However the prevalence was higher (12.3%) in 2008, on enquiry it was found that due to lack of availability of the free diagnostic kits, the staff was forced to do selective testing of the clients with definitive high risk behaviour. The priority for testing was given to all the pregnant women during that year till the supply became regular and adequate. In a study in north west region of India prevalence increased from 12.2% in the year 2002 to 17.3% in 2007.<sup>5</sup>

The male HIV positive clients are more than females similar findings were observed in other studies.<sup>6,7,8</sup> Among the females 52.7% were below the age of 30 years, such a high proportion of infection rate in young females is an area of concern since this will lead to a increased risk of mother to child transmission

Prevalence of HIV is highest among sexually active age group i.e., 15-49 years. Similar findings were observed in other studies conducted in India.<sup>6,7,8</sup> Where as in a study conducted in Thailand men between 20-49 years and women less than 16 years were significantly associated with HIV prevalence.<sup>9</sup>

Among all the HIV positive clients 78.1% were married and 11.4% were divorced /widowed. So there is a potential risk that they may contract it to their partners. In a study in Thailand among all divorced and widowed clients 46.3% were HIV positive. The illiteracy was 61.1% in females and 48.4% in males.. In a study done in coastal karnataka Illiterates are only 2.8%.<sup>7</sup> In general it is observed that awareness and knowledge of HIV/AIDS remains weak in rural areas and among women.<sup>10</sup> Literacy rate has to be increased and sex education is to be included in secondary school curriculum it can help in raising the awareness

regarding HIV in young people and also enhance the safe sexual practices .

5% of the HIV positive clients are truck drivers. In a study in Indore they found that 82.9% of the senior and 43.8% of the junior drivers had history of extra marital sex. The long distance truck drivers are highly mobile group in whom multiple sex partners are quite common.<sup>11</sup> So there is a need to work more intensively with this population.

Unprotected heterosexual contact has come out to be the most common mode of transmission of HIV in the present study( 83.7%). Transmission by other modes like blood transfusion, vertical transfusion and intravenous drug abuse were low and these findings are almost similar to national figures. People with high risk behavior and the spouse of the affected couple need to be educated regarding all levels of prevention of the disease. HIV patients should be educated regarding the antiretroviral therapy that will not only prolong the survival it decreases the viral load and transmission of the disease.

Only 8.5% of the individuals, the information of the risk behaviour was not available. It was 59.8% in another study in Udupi during the year 2007<sup>6</sup>. This brings out the fact that clients were comfortable enough in disclosing the information about such sensitive facts atleast in front of the counselor. This is due to intensive training in strengthening the skills of HIV counselors under NACP-III.

Majority (55.1%) of them had attended ICTC voluntarily. In a study among police personnel in Amritsar 78.2% visited VCTC as direct walk in clients<sup>12</sup>.This can be attributed to the increasing awareness among the people by the combined efforts of health care personnel, NGO and media. The registers lack certain important data like details of contact history, family size, any other person in the family with HIV etc. These may be collected especially from the HIV positive clients during the post-test counseling sessions and may be recorded as case studies in a certain uniform standardized semi-structured format, so that those information may be compiled and utilized for programmatic interventions.

**Conclusion:** The HIV prevalence among the ICTC attendees shows a declining trend in both sexes over the last 4 years. Majority among them are labourers from the agricultural background and housewives. Among these sub-groups, majority are illiterates and quite a high proportion (38%) of them are in the younger age group. So the apparent decline of HIV prevalence should not be considered as a reason for complacency..

There are many industries in and around the ICTC and adequate sensitization of the workers in these factories may increase the yield of the counseling & testing services and may facilitate early detection of the cases. As the villages are located far apart, it may be difficult to find any organized group of sex workers in the catchment area. However, through the Link workers identified in this area, the vulnerable individuals and high risk pockets may be mapped and targeted through group / individual counseling with the help of the ICTC counselor during the outreach sessions. The HIV/TB coordination activity even though functional, needs strengthening and contribution from the STD clinic may be improved, through advocacy and effective coordination with the departments.

**Implications of the study:** We come to know the trend of HIV/AIDS,sociodemographic profile and risk behavior of HIV positive clients in our area,that will be useful for policy makers to take appropriate and necessary interventions for prevention and control.

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