

# Sociodemographic Profile of HIV Positive Clients

Rekha G. Dutt\*, Dipak C. Patil\*\*

**Context** - AIDS has evolved to a global pandemic which has infected tens of millions of people in < 20 years. The integrated counselling and testing centre (ICTC) services have begun as a cost effective intervention to control the epidemic.

**Aims** - To study the sociodemographic characteristics of HIV positive clients.

**Settings and Design** - A cross sectional, record based observational study.

**Methods and Material** - The study was conducted among the clients, selected by conventional sampling method, who tested positive for HIV in ICTC centre of Medical college Hospital in Navi Mumbai from 1/1/08 to 31/12/09.

**Results** - The study included 114 subjects of whom 62 were males, 51 were females and 1 was transgender. A majority of subjects (92.9%) were in age group of 15 - 49 years. HIV seroprevalence rate decreased with increase in educational level. Majority of the subjects were daily wagers and domestic help by occupation. Sixty per cent of the attendees were married. Sixty three per cent of the clients were migrated to Navi Mumbai and 68 % of them were staying alone without their family.

Heterosexual was the commonest (96.4%) route of transmission where as Mother to Child transmission was in 2.6% cases. Only 22.2% of pregnant women-child pair was given Nevirapine to prevent parent to child transmission. Tuberculosis was positive in 11.4% of subjects.

**Conclusions** - Since Maharashtra is considered the high prevalence state for HIV positivity, for the people of Mumbai, intense IEC activities through increased availability of ICTC services will be beneficial for the community.

## Introduction

The growing menace created by HIV/AIDS has alarmed not only the public health officials but also the general community. Approximately 33.2 million people are living with it worldwide.<sup>1</sup> Latest update by UNAIDS show that 4.7 million people have HIV/AIDS in Asia and India accounts for roughly half of Asia's burden.<sup>2</sup> National AIDS Control Programme's statistics of 2006 suggests that national adult HIV prevalence in our country is approximate 0.36%, amounting to 2.5

million people living with HIV and AIDS, almost half of the previous estimate of 5.2 million.<sup>3</sup>

In order to implement the control programme in a particular region, it is essential to understand the Sociodemographic factors, level of awareness and risk behaviour of population. Voluntary counselling and testing centre (VCTC) is a cost effective intervention in preventing HIV transmission. The Voluntary counselling and testing centre now called as Integrated counselling and testing centre (ICTC) is an entry point to care, which provides people

\*Associate Prof., \*\*Assistant Prof., Padmashree Dr D Y Patil Medical College, Nerul, Navi Mumbai.

with an opportunity to learn and accept their HIV serostatus in a confidential environment.<sup>4</sup> The data generated in ICTC can provide significant information to understand the epidemiology of HIV/AIDS in particular region.<sup>5</sup>

The present study was conducted on attendees of ICTC of Padmashree Dr D Y Patil Hospital and Research Centre, Nerul, Navi Mumbai to know the epidemiological profile of the HIV positive individuals.

### **Methodology**

The present study was conducted in ICTC of Padmashree Dr. D. Y Patil Hospital and Research Centre, Nerul, Navi Mumbai. Nerul is an up market residential, semi commercial and educational node of the city of the Navi Mumbai in Maharashtra. It is better known as Queen of Navi Mumbai and lately has acquired international fame for D Y Patil Cricket Stadium, Nerul. The estimated population of Nerul is around 600,000.<sup>6</sup> Two ICTC centre are in Nerul out of which, one is our study point.

The protocol of the study was approved by Ethics Committee of Padmashree Dr D Y Patil Medical College, Hospital and Research Centre.

From January 2008 to December 2009, 4568 clients attended the ICTC who were either volunteers or referred from other institutions or departments. Our study included 114 clients that were HIV positive (2.5%). Information of all the clients was available from records maintained at ICTC on variables such as age, gender, education, occupation, marital status and high risk behaviour. This information was recorded when the client visited ICTC for the first time and most of them were unaware of their HIV status. HIV was diagnosed by performing

Enzyme Linked Immunosorbent Assay (ELISA) by using two different antigens and a rapid test as recommended by NACO.

Data was collected, compiled and analyzed using standard statistical methods.

However the current study has certain limitation as the results are based on the reporting and data collection by the personnel employed in ICTC. Information on socioeconomic status and condom use are not available.

### **Results**

Out of 114 clients studied 62(54.3%) were males; one was transgender and 51(44.7%) were females out of which 9 were pregnant.

A majority of study subjects i.e. 92.98% belonged to the age group of 15-49 years, with 2.6% and 4.3% subjects being less than 15 years and above 50 years respectively.

The distribution of HIV positive attendees by their education level shows that majority of them were illiterate(54.4%) followed by 26.3%, 15% and 4.3% were educated up to 5<sup>th</sup> standard, 5<sup>th</sup>-10<sup>th</sup> standard and college above respectively.

The HIV positive serostatus of the attendees by their occupation shows that majority (69.5%) were on daily wages, followed by 15.7% subjects were involved in business, only 4.3% were in service and 2.6% subjects were students. Among females, 17.6% were housewives.

The distribution of subjects shows that majority of them 59.6% were married and of them 60.29% were staying with their spouse and remaining 39.7% were separated or staying away from their spouse.

History of migration was present in 63.2% of subjects.

Regarding the route of transmission, a majority of subjects 97.3% quoted that as heterosexual route, followed by parent to child (1.7%) and homosexual route (0.8%). None of the subjects gave history of blood transfusion or injectable drug use.

It was observed that 19.5% of clients had one or the other family member tested positive for HIV. Positivity rate among pregnant women was 0.38% and out of them 22.2% was given tablet Navirapine for consumption at the time of labour.

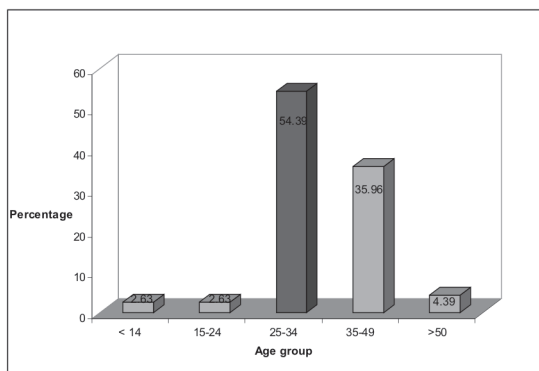


Fig. 1 - Age (in years) wise Distribution of Study Subjects

It was observed that 11.4% of HIV positive subjects were suffering from Tuberculosis.

### Discussion

The prevalence of HIV seropositivity in ICTC clients in the present study was observed to be 2.5%, which is lower than that reported in Mumbai (10.04%) and Maharashtra (11.8%) in 2007 by Maharashtra AIDS Control Society.<sup>7</sup> HIV seropositivity is also less than another ICTC based study conducted at adjoining state of Karnataka which observed it to be 9.6% in 2007.<sup>8</sup>

Our study highlights that males

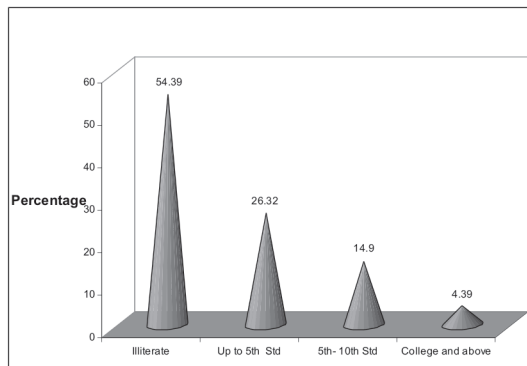


Fig. 2 - Education wise Distribution of Study Subjects

contributed 54.3% of the case load in ICTC with 44.7% and 0.88% for females and transgender respectively. The figure is much close to the National average of 38.4% for females.<sup>8</sup> Seropositivity was more in males (5.65%) than female (1.46%) which is in accordance to the study conducted in West Bengal,<sup>5</sup> and 100% for transgender as homosexuals are at higher risk of acquiring HIV infection.

It is seen that HIV/AIDS affects the economically productive age group which coincidentally is also sexually active age group (15 - 49 years). According to our study, 92.98% of the subjects belonged to this age group, which is slightly higher than the National figure of 89% in age group of 20 - 49 years.<sup>1</sup> And almost same

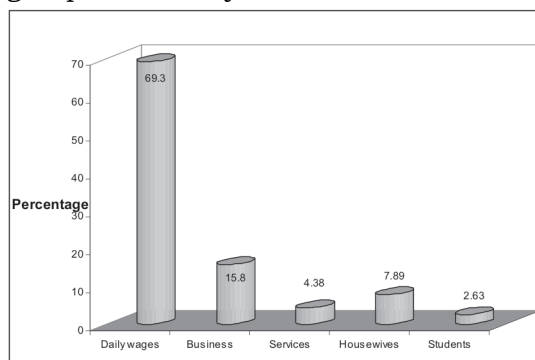
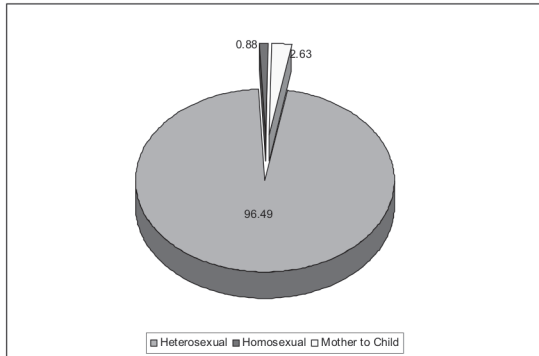


Fig. 3 - Occupation wise Distribution of Study Subjects



*Fig. 4 - Route of Transmission in percentage in Study Subjects*

with the figures obtained from another study (92.4%) conducted at VCTC in Darjeeling<sup>5</sup> and (85.99 - 90.55%) in Rajasthan.<sup>9</sup>

Our study shows that prevalence of HIV decreases with increase in educational level of the subjects. It may be because of better knowledge, attitude and practice regarding HIV care and its prevention in higher educated individuals. Similar results were obtained by another study.<sup>5</sup>

HIV/AIDS prevalence in attendees who are on daily wages is higher than those who have business or service as their occupation. It may be inferred that people on daily wages have low socioeconomic status, low literacy level and hence less awareness on risk factors and prevention of HIV/AIDS.

Majority of the subjects in our study are married. It means the spouse of the HIV positive subjects may get the infection and those who are unmarried will soon enter in to matrimony and ultimately the risk of parent to child transmission will further increase. The perinatal transmission in our study was found to be 2.6% which is found to be similar with information reported by Joardar (2.63%).<sup>5</sup> Under prevention of parent to child

transmission (PPTCT) programme, tablet Nevirapine is given to pregnant women and child pair, to be consumed by HIV positive mother during labour and her newborn within 72 hours of birth. Our study shows that only 22.2% of HIV positive pregnant women were given this medicine which is in accordance with the observation of (23.24%) in 2006 provided by Maharashtra AIDS control society.<sup>7</sup> WHO reported that in India 2% of HIV infected pregnant women for PPTCT were given ART in 2005.<sup>10</sup>

In India, poor access to health services, ignorance of masses and lacunae in the implementation of PPTCT may lead to increase in paediatric HIV infection in years to come.<sup>11</sup>

Majority of HIV positive clients (63.2%) had migrated to Mumbai. Most of the migrated subjects were not staying with their family. To beat stress of urbanization, as there is no fear of society and to seek pleasure, a single migratory person is more prone to get involved in high risk behaviour.

Another study by Chakravarty in Uttar Pradesh reported 71.5% of HIV positive subjects had history of migration.<sup>12</sup>

The pattern of risk behaviour shows that heterosexual contact was the commonest (96.4%) mode of transmission which is supported by the finding of other studies.<sup>5,8,12</sup>

Tuberculosis is the commonest opportunistic infection in HIV positive people. It has been estimated that 60% of the HIV positive subjects are also infected with tuberculosis.<sup>1</sup> In present study it has been observed that 11.4% of the subjects had tuberculosis infection which is similar to the reports (11.6%) of the study done in Karnataka.<sup>8</sup> Another study conducted in

Uttar Pradesh reported that 38.8% of HIV positive patients had tuberculosis infection.<sup>12</sup>

As the present study was done in ICTC centre of a medical college hospital, the results observed are subject to bias arising from rate of reporting. It is seen that in case of sensitive issues linked with social stigma, there is under reporting or false reporting of data. So in such issues, a community based study would have been better to avoid such type of bias.

### Conclusion

Since Maharashtra is considered a high prevalence state for HIV positivity, the people are highly vulnerable to rapid spread of HIV/AIDS for its geographic location, rapid industrialisation and migration. There is need to carry out intense IEC activities to promote the behavioural changes. Increased availability of ICTC services will prove beneficial for the community.

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#### **CHINA TAKES ACTION AGAINST TUBERCULOSIS AND HIV CO-INFECTION**

The new strategy encourages collaboration between those who care for people with tuberculosis and those who specialise in HIV. For example, patients diagnosed with HIV/AIDS should have sputum cytology, chest radiography, and tuberculosis screening questionnaires. Likewise, people newly diagnosed with tuberculosis should be offered HIV-antibody tests.

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