



## RECENT PROFILE OF HIV POSITIVE PATIENTS ATTENDING INTEGRATED TESTING AND COUNSELING CENTRE (ICTC) AT TERTIARY CARE CENTRE, BANGALORE.

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### ABSTRACT

**INTRODUCTION** HIV continues to be a major global public health issue, having claimed more than 35 million lives so far. Integrated counseling and testing center (ICTC) is the gate way to care. HIV positive individuals who undergo ICTC are reported to have safer sex and reduced risk behaviors, thereby decreasing their likelihood of infecting others.

**MATERIALS AND METHODS** It was a Hospital based cross sectional observational study conducted at, The Oxford Medical College Hospital and Research centre of 7389 clients registered at ICTC from July 2018 to January 2020.

**RESULTS** 1.04% of the clients were HIV reactive. Maximum seropositives were males 70.1%. The age group 35- 49 years depicted highest seropositivity. Among the male seropositives 11(20.3%) were drivers (local transport and truck). Among females 16(69.5%) were housewives. Heterosexual (97.4%) was the commonest mode of transmission.

**CONCLUSION** ICTC is a key entry point for HIV prevention. ICTC services could make difference by increasing the awareness by aggressive health education programmes and addressing to all other needs

### KEYWORDS

Integrated counseling and Testing Centre (ICTC), National AIDS Control Organisation (NACO)

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### INTRODUCTION

The Human immunodeficiency virus (HIV) is a global pandemic and has grown into public health program of unprecedented magnitude.<sup>1</sup> In India, there are 2.1 million people living with HIV, 0.22% adult prevalence, 87000 new HIV infections, 69000 AIDS related deaths. Annual new HIV infections have declined by more than 60% since 2000. The results of the 2017 round of HIV Estimates confirm the national declining trend in new HIV infections and AIDS-related deaths corroborating India's success story in curbing the epidemic. High HIV incidence rate in North-eastern States and several other States/UTs like Bihar, West Bengal, Telangana, Delhi, Jharkhand and Haryana have registered declines in new infections which is less than the national average, is a source of major concern<sup>2</sup>. Integrated counseling and Testing Centre (ICTC) is an entry point to care and support services, which provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment<sup>3</sup>. The data collected in the present study from the patients attending the ICTC of a Tertiary care Teaching hospital in Bangalore, Karnataka, may provide important clues regarding the epidemiological profile of HIV-positive individuals.

### MATERIALS AND METHODS

The present retrospective cross sectional study was carried out in the Department of Microbiology, The Oxford Medical College Hospital and Research Centre Bangalore, Karnataka.

The study was carried out from July 2018 to January 2020. Direct walk-in clients as well as referrals from various department of this institute were included in the study. As per the National AIDS Control Organisation (NACO), the ICTC counselor interviewed the attendees. Pre-test counseling was done for all the clients. After obtaining informed written consent, demographic profile including age, gender, education, occupation, marital status was recorded on a pre designed schedule. Five milliliters of venous blood sample was collected in a plain, sterile container from all clients who consented for HIV testing. Blood was allowed to clot for 30 minutes at room temperature (25-300C) and serum was separated after centrifugation at low speed. HIV testing was performed as per NACO guidelines as per WHO testing

strategy III. All the specimen were first screened by a rapid dot immunoassay test. Negative specimen was reported as 'Non reactive'. Reactive specimens were further subjected to two different supplemental rapid tests. Specimen positive by all the three tests were reported as 'Reactive'. The data thus collected was compiled and statistically analyzed by using statistical software Epi Info Version 7

### RESULTS

A total of 7389 clients attended ICTC centre of our hospital during the study period. Among clients reporting to ICTC, 4124 (55.9%) were males, 3265 (44.1%) were females. 77 (1.04%) of the clients were HIV reactive and the positivity was 54(70.1%) among males, 23(29.8%) among females (Table 2). Maximum seropositivity among males and females belonged to the age group of 35- 49 (40.2%) years (Table 1). The seropositivity rate of the clients by their occupations shows that among the males majority of the HIV seropositives, 11(20.3%) were truck drivers (Table.3). In case of female clients, most of the HIV seropositives 16(69.5%) were housewives (Table.3). In terms of risk behavior heterosexual, reported the commonest route of transmission (male 96.2% in males and 100% in females).

### DISCUSSION

The HIV seropositivity in ICTC clients in the present study was noted to be 1.04%. Barua et al<sup>4</sup> reported seroprevalence of 1.07%, which is similar to our study. The lower prevalence observed in our study is because of intense health education and awareness campaigns regarding HIV and its modes of transmission and improved pre-test counseling, thereby promoting more clients to undergo HIV testing and thus improving early diagnosis and management of HIV<sup>6</sup>. A higher seroprevalence than ours was reported by Bansal et al in Haryana (28%),<sup>7</sup> Mathur et al in Jaipur (12.35%),<sup>8</sup> Kiran in Ranchi (6.9%),<sup>9</sup>. However lower rate of prevalence were reported by Dinesh et al (0.36%)<sup>10</sup>. The difference in HIV prevalence in different studies may be attributed to the difference in health seeking behaviors in different parts of the country which depends on socio - cultural milieu of the community<sup>4</sup>. With regard to gender, higher percentage 55.9% of those tested for HIV were males and the rest 44.1% were females. This is in accordance with other studies, Dinesh et

al<sup>10</sup> found 55.5% males and 44.94% females, Chelliyar et al<sup>11</sup> found 68% males and 32% females. The present study prevailed higher percentage in males (1.30%) than females (0.30%), which are in accordance with other studies in India<sup>(8,10,12)</sup>.

India HIV Estimation 2017 report, HIV prevalence in India is estimated at 0.22% (0.16% – 0.30%) with 0.25 % (0.18-0.34) among males and 0.19% (0.14-0.25) among Females. Annual new HIV infections have declined by more than 60% since 2000. The NACO 2017 technical estimation report confirm the national declining trend in new HIV infections and AIDS-related deaths corroborating India's success story in curbing the epidemic<sup>2</sup>. In our study, HIV prevalence was maximum in 35–49 years age group (40.2%) followed by 25–34 years age (25.9%). In the studies conducted by Gupta M (88.7%)<sup>1</sup> and Dash et al (88.3%)<sup>13</sup> reported maximum seroprevalence in the age group of 15–49 years. This group is more sexually active and hence more prone for developing HIV and other sexually transmitted infections<sup>4</sup>. As far occupation is concerned maximum seropositivity in males was found among Drivers 11(20.3%) followed by labourers 11(20.3%), where as in females maximum seropositivity was seen among housewives 16(69.5%). Studies conducted by Kiran et al<sup>3</sup> and Sinha et al<sup>14</sup>, showed maximum seropositivity among truck drivers who remain out of their home for most of the time indulge in sexual activities with partners other than their spouses. This could be because they are away from their houses and have the chance to be engaged in extramarital sex. They can then get HIV and transfer to their wives at home and is vulnerable for a rapid spread of the infection<sup>3</sup>. Transmission by unprotected heterosexual route was the most common mode of transmission of HIV (97.4%). In a study by Gupta V et al<sup>15</sup> (97.76%) and Ade AD et al<sup>16</sup> (96.1%) found heterosexual transmission to be the predominant mode of HIV infection.

## CONCLUSION

The HIV seropositivity was found to higher among the truck drivers, daily wage labourers, house wives and high proportion of them were in the younger, economically productive age group. Hetero Sexual route was the commonest mode of transmission. A successful communication program helps to promote behavioural change, in addition to increasing knowledge regarding the disease<sup>3</sup>. ICTC plays a key role in diagnosis, management and prevention of the spread of the disease.

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**Table: 1. Age wise distribution of Total attended and HIV seropositivity**

Age	Male tested N=4124	Male Positive N=54	Female Tested N=3265	Female Positive N=23	Total tested N=7389	Total Positive N=77
<14	469 (11.3)	0 (0)	325 (9.9)	0 (0)	795 (10.7)	0 (0)
15-24	794 (19.2)	4 (7.4)	585 (17.9)	1 (3.7)	1379 (18.6)	5 (6.17)
25-34	958 (23.2)	17 (31.4)	790 (24.1)	3 (11.1)	1748 (23.6)	20 (25.9)
35-49	913 (22.1)	19 (35.1)	788 (24.1)	12 (52.1)	1701 (23.0)	31 (40.2)
>50	965 (23.3)	14 (26)	753 (23.0)	7 (30.4)	1718 (23.2)	21 (27.2)
Unknown	25 (0.6)	0	24 (0.7)	0	49 (0.6)	0

**Table:2. Sex wise Distribution of clients Tested and Diagnosed HIV positive**

Male Tested	Male Positive	Female Tested	Female Positive	Total Tested	Total Positive
4124	54 (1.3%)	3265	23 (0.7%)	7389	77 (1.04%)

**Table: 3. Occupation wise distribution of HIV positive cases**

Occupation	Male positive	Female positive	Total positive
Agriculture labour	1 (1.85)	1(4.3)	2 (2.5)
Non agriculture labour	7 (12.9)	2 (8.6)	9 (11.6)
Domestic servant	3 (5.5)	2 (8.6)	5 (6.4)
House wife	0 (0)	16 (69.5)	16 (20.7)
Skilled worker	4 (7.4)	0 (0)	4 (5.1)
Semi skilled worker	4 (7.4)	0 (0)	4 (5.1)
Petty business	5 (9.2)	2 (8.6)	7 (9.0)
Govt. service/PVT	0 (0)	0 (0)	0 (0)
Student	2 (3.7)	0 (0)	2 (2.5)

Truck driver	8 (14.8)	0 (0)	8 (10.3)
Auto driver	3 (5.5)	0 (0)	3 (3.8)
Hotel staff	1(1.8)	0 (0)	1 (1.2)
Agriculture labour	8 (14.8)	0 (0)	8 (10.3)
Unemployed	3 (5.5)	0 (0)	3 (3.8)
Others	5 (9.2)	0 (0)	5 (6.4)
<b>Total</b>	<b>54</b>	<b>23</b>	<b>77</b>

**Table.4. Pattern of Risk Behaviour among HIV Positive Clients**

Route of Transmission	Male N=54	Female N=23	Total N=77
Heterosexual	52 (96.2%)	23 (100%)	75 (97.4%)
Homosexual	0	0	0
Blood transfusion	0	0	0
Syringes/ Needles	0	0	0
Parent to child	0	0	0
Unknown	2	0	2

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