INTRODUCTION
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AIDS, the Acquired Immuno-Deficiency Syndrome, is one of the deadly sexually transmitted diseases that has piled enormous tension all over the world in recent times due to its divesting phenomenon. AIDS is caused by a retrovirus known as human Immuno-deficiency virus that spares individuals and damages the immune system. The damaged immune system cannot protect the body from the infection and persuaders. The individual enter this perish-den willingly via momental pleasure and became vulnerable to most of life threatening opportunistic infections, neurological disorders and unusual malignancies.

The disease, during the past, has frequently been misunderstood to be predominantly a homosexual disease. It is, infact, a sexually as well as asexually transmitted viral disease which first came into the attention of world through its appearance among five previously healthy and homosexual men in Los Angeles (USA) and among heterosexuals in other countries.

Although AIDS was first recognized in USA in 1981, earlier cases were found by retrospective analysis to have occurred in 1978 in USA and in late 1970 in equatorial Africa. The present rate and patterns of HIV infection worldwide is setting the scene for the divesting spread of HIV infection. AIDS pandemic is present particularly throughout Asia — a continent in which over half of the world population live. The continued increase in HIV infection particularly in Southern and Central Africa and South Asia will accentuate the disproportionate impact of HIV/AIDS to developing world. HIV/AIDS continue to spread in South East Asia. The infection is not only increasing among individuals with high-risk behaviour but now starting to spread to general population as well.

The virus has been isolated in greater concentration in blood, semen and cerebrospinal fluid, and in lower concentrations in tears, saliva, breast
milk, colostrums and urine. The cervical and vaginal secretions are definite source of infection. Apart from it, it has also been isolated in brain tissue, lymph nodes, bone - marrow cells. Modes of transmission of these virus depend on exposure to body fluids from an infected person, quantity of virus as well as route of exposure and the duration of exposure. It is not known however how many viruses and over what period of time, are needed to cause infection or what other factors affect the chance of infection.

The AIDS and the entire spectrum of disease has become a problem of intense international interest. The causing virus is not transmitted through the air, casual contact, by insects, by food or water. Modes of transmission is by (a) sexual transmission (natural or unnatural) from person to person (same sex or either sex), (b) transmission of contaminated blood or blood products (c) sharing or reusing contaminated needles, razors or medical equipments and (d) during pregnancy, child birth, and possibly breast feeding from woman to child.

Serologic evidence of this infection is highly attributed to high risk, on one extreme of the spectrum, related to homo and hetero sexual habitants, multiple sexual partners, positive cases of STDs, intravenous drug users, beneficiary of regular blood transfusion, users of needles and syringes of a HIV patient, sex workers, child labours, nursing, and medical students and staff, to other extreme, the innocent fetus in a HIV positive mother’s womb. Various studies conducted in India and abroad have observed high incidence of HIV in the aforesaid high-risk groups.

In India and other developing countries, sexual transmission of HIV is the dominant mode for the spread of AIDS. The most common route for the spread of HIV is by unprotected (without a condom) sexual intercourse between two partners when one partner is infected with the virus. Unprotected anal intercourse can also be a route of transmission. HIV has been found in sperms as well as in the seminal fluid. Artificial
insemination, where infected semen from a man is artificially inserted into a female, could also be a route of infection.

A single sexual encounter with all infected partner is sufficient to transmit HIV. However, some studies suggest that the risk from a single sexual intercourse between a male and female partner can be as low as one chance in one thousand. Although the risk from an individual sexual act may be low, the more the times a person has unprotected sex, the greater the chances of infection he has. Women appear to be more at risk than men from heterosexual sex. The most likely reason is that the infected semen from the man remains in the woman's body for a long period of time at a greater surface area and thus, increases the likelihood of infection. A woman with HIV will have the virus in her menstrual blood. Sexual intercourse during her period will be more risky. Her sanitary pads or tampons will also contain HIV.

The coming of AIDS has led to a greater willingness to talk about homosexuality in India. It is now generally accepted that homosexuality is more widespread than had been believed. In addition, there are many homosexual men who perceive themselves as heterosexual, as they are married and have children. These male occasionally have sex with other male partners. HIV infection has been found only occasionally among homosexuals in India, although main mode of spread is still primarily heterosexual.

Female homosexuality or lesbianism, is considered a very low risk activity for transmission of HIV from masturbation. There is no risk of becoming infected with HIV by giving blood, provided the equipment used is sterile or once a - use disposable quality. However, receiving blood contaminated with HIV will lead to infection. Since late 1985, most western countries have been testing blood for HIV and this practice is increasingly being adopted in India. A World Bank report in 1991 estimated that only one
third of blood transfused in India was screened for HIV. Unfortunately in India, contaminated blood is still an important route of infection in the community.

This testing of blood does not remove all risk from transmission through donated blood. It takes 3 to 12 weeks after infection for the body to produce antibodies. If blood is donated during this window period, antibodies will not be detected by HIV test but the blood will still be infectious. Testing blood greatly reduces the risk of HIV infection, so this should happen rarely, but when there is high level of HIV in public there is still a risk. As such, it is important that blood transfusion should be given only when it is a dire necessity.

Another way by which contaminated blood can be passed from person to person is through intravenous drug injections. When people inject drugs such as heroin, they frequently draw in a small amount of blood into the needle. If another person uses the same needle, that blood containing the HIV virus will be injected and lead to infection. So most intravenous drug users from tight knit communities once injected with HIV, one person of the knit can spread it rapidly throughout whole community. By 1987, 50% of the population of drug users in the city of Edinburgh were infected with HIV (and only with substantial health education inputs the level of infection in 1992 very slightly declined).

There are variety of practices that involve piercing the skin with instruments which, if not sterilized, might lead to transmission of HIV. In India tattooing ear/nose piercing and circumcision are common skin piercing practices. Male circumcision and vaginal mutilation are practiced in many cultures which involve cutting off the foreskins of the organs. This is often done on babies but in many cultures it is carried out as a traditional ceremony when a group of boys/or girls are sexually instrumented together in groups. There are evidences, from some studies that circumcised male is
less likely to contact sexually transmitted diseases and HIV infection from sexual intercourse.

HIV can cross the placenta from the mother to the infant before birth. It is possible that HIV is also transmitted from, the mother when the baby travels down the birth canal. The likelihood that a mother who is HIV antibody positive will give birth to an infected baby is between 30% to 35%.

HIV has been found in breast milk but this does not necessarily mean that it will always be passed on and infect the baby. There have been several studies which now indicate the transmission of HIV through breast milk in some cases.

HIV has been detected in saliva (and most other body fluids). This has raised worries about the possibility of contracting HIV through kissing or sharing utensils. The concentration of the virus in saliva is very low and there are substances in saliva that probably inactivate HIV. However, even if the virus is swallowed the acid in the stomach would most likely inactivate HIV. So there is almost no risk even in deep kissing. Infection through deep kissing might take place need of HIV/AIDS studies in low risk groups in INDIA.

1.1 NEED OF HIV/AIDS STUDIES IN HIGH RISK GROUPS IN INDIA

High-risk groups included in this study are truck drivers, prostitutes, Jail-inmates, police and P.A.C personnel. As sexual transmission is the most common mode of transmission of HIV/AIDS, the high risk groups included in this study are more likely to indulge in unsafe sexual practices, due to the long stay outside their homes and families, thus, being at higher risk of infection of HIV. Sexually transmitted diseases increased chance of HIV infection (Lalit and Nath, 1993), jail-inmates are also at increase risk of homosexual relationship among themselves.
1.2 NEED OF HIV/AIDS STUDIES IN LOW RISK GROUPS IN INDIA

Low risk groups included in this study are students, teachers and paramedical staff. As contaminated blood and needles are also responsible for the transmission of HIV/AIDS, the low risk groups included in this study are likely to get infection through contaminated needles of syringes and contaminated blood transfusion.

For effective control and prevention of HIV/AIDS, it is essential to know the extent of problem in different groups of population. To know this, there have been very few studies in this part of the world. So there is urgent need for such type of studies in India. For prevention- of AIDS, it is necessary to know the knowledge of people on different aspects of AIDS and their attitude towards AIDS patients and high risk practices which are responsible for transmission of HIV /AIDS. Keeping these factors in mind, this study was designed to fulfil the gap in knowledge on HIV /AIDS in India

1.3 AIMS & OBJECTIVES

The present investigation was undertaken with following general and specific objectives:

(1) **General objective**: To study the prevalence of HIV/AIDS in high risk groups *viz* prostitutes, truck drivers, Jail-inmates, police and PAC personnel of district Jhansi, Lalitpur and Orai in Uttar Pradesh as well as in low risk groups *viz*-students, teachers and paramedical staff.

(2) **Specific objectives**: These were following:

(i) To explore the route of transmission in them.
(ii) To see the type of opportunistic infection in AIDS patients.

(iii) To study the socio-economic and demographic correlates of HIV/AIDS.

(iv) To assess their knowledge, attitude and practices regarding HIV/AIDS.

(v) To remove the misconception regarding AIDS transmission via. Casual contact, sharing utensils, sneezing/coughing and mosquito bite etc.

(vi) To study the CD$_4^+$ cell count level of HIV positive cases if possible.

(vii) To promote awareness among the masses

(viii) To bring forth recommendations for use by health administrators and policy makers to control the malady and prevent HIV in the region from its further spread.