

EXTEND OF AWARENESS OF HIV/AIDS IN COMMUNITY

Authors Name: ¹Dr. Rajesh Kumar Sahu, ²Dr. Preeta Lall

¹Ph.D. Research Scholar, Department Of Physiotherapy, NIMS College Of Physiotherapy, NIMS University Rajasthan, Jaipur, INDIA

²Asst. Professor, Dr. Radhabai Govt. Navin Girls College, Raipur, Chhattisgarh, INDIA

E-Mail Id: rajeshksahu1991@gmail.com

DOI Link: <http://doi-ds.org/doi/10.21961/08.2020-35329955/>

Abstract	<p><i>Human Immunodeficiency Virus infection & Acquired Immune Deficiency Syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the Human Immunodeficiency Virus (HIV). In India, HIV was first detected in 1986. Since then there has been a steady increase in the prevalence of HIV infection. The analysis of study 36 patients with Tuberculosis aged more than 19 years was carried out Village- Rampur,, Block & Teh.-Patna,, District - Korea, State - Chhattisgarh for a period of 2 months from (1st November 2015 to 30th December 2015) The score of patients there was significant difference score according to sex, socioeconomic status, occupation, statistically significant difference in quality of life score was not seen with respect to age, locality, religion, marital status, type of family, educational status, occupation, alcohol intake, smoking, diet. We came to find that peoples of rural areas are not able to provide proper knowledge. Because they don't have appropriate knowledge about HIV/AIDS, Overall, the unprotected relationship with multiple partners found to be most common risk factor for HIV transmission in the study population.</i></p>
Keywords	<p><i>HIV, AIDS, STD</i></p>

INTRODUCTION

In India, HIV was first detected in 1986. Since then there has been a steady increase in the prevalence of HIV infection. **National AIDS Control Organization** recorded a drastic increase in the prevalence level of HIV from 3.97 million in 2001 to 4.58 million cases in 2002. The prevalence of HIV infection varies greatly between and within states in India. States like Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu are considered as high HIV prevalence states where the level of prevalence among high-risk groups is five percent or more and one percent or more in low risk group (antenatal women). The heterosexual relations is the most common route of HIV transmission except north-eastern states where needle sharing injecting drug use accounts for larger proportion of HIV cases. In the past, HIV infection was considered to be prevalent only among highly vulnerable groups and is now general population through bridge populations. The spread to the general population is evidenced by the rising incidence rate among women attending antenatal stages. Therefore, knowledge on the routes of HIV transmission in general population deserves high priority since earlier studies are confined to high-risk groups. The transmission dynamics of HIV infection includes biological, behavioral, social, economic, cultural, environmental and political dimensions. Studies have shown that socioeconomic, cultural and demographic factors mediate their effect on HIV transmission only through a set of intermediate factors. Early studies explored the sexual behavior and AIDS related knowledge, attitude and practice among the target populations like **Female sex workers, Truck drivers & College or University students**. Some of the studies examined the socio-cultural contexts of sexual behavior and directly linked them with HIV infection. In Indian context, No study have analyzed the influence of socio-economic factors on the spread of the HIV using intermediate factors. Therefore, the present study attempts to quantify the effect of intermediate variables on possible transmission of HIV infection in a high prevalence state viz. Tamil Nadu. The level of condom use found to be very low in this study population. However men especially in control group were more likely to use condom during sexual intercourse with female sex workers when compared to non-commercial partners. In order to identify the predominant mode of HIV transmission, the past history of

sexually transmitted diseases, past history of blood transfusion, condom use and number of lifetime sex partners have significant effect on HIV infection. Low level of education and consumption of alcohol or drugs prior to sex significantly influences sex with menstruating women other than wife. The selected socioeconomic characteristics do not show any effect on exposure to contaminated blood or blood transfusion. Multinomial regression analysis again show that the low level of education and income, staying in public places, exposure to pornographic movies, condom use and number of sexual partners even after controlling for other socioeconomic and demographic variables.

AIM & OBJECTIVE

Awareness of HIV/AIDS in rural community

REVIEW OF LITERATURE

HIV / AIDS

Human Immunodeficiency Virus infection & Acquired Immune Deficiency Syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the **Human Immunodeficiency Virus (HIV)**. Following initial infection, a person may experience a brief period of influenza-like illness. This is typically followed by a prolonged period without symptoms. As the infection progresses, it interferes more and more with the immune system, making the person much more susceptible to common infections, like tuberculosis, as well as opportunistic infections and tumors that do not usually affect people who have working immune systems. The late symptoms of the infection are referred to as **AIDS**. This stage is often complicated by an infection of the lung known as pneumonia, severe weight loss, skin lesions caused by Kaposi's sarcoma, or other AIDS-defining conditions. HIV is transmitted primarily via unprotected sexual intercourse (including anal and oral sex), contaminated blood transfusions, hypodermic needles, and from mother to child during pregnancy, delivery, or breastfeeding. Some bodily fluids, such as saliva and tears, do not transmit HIV. Common methods of HIV/AIDS prevention include encouraging and practicing safe sex, needle-exchange programs, and treating those who are infected. There is no cure or vaccine however, antiretroviral treatment can slow the course of the disease and may lead to a near-normal life expectancy. While antiretroviral treatment reduces the risk of death and complications from the disease, these medications are expensive and have side effects. Treatment is recommended as soon as the diagnosis is made. Without treatment, the average survival time after infection with HIV is estimated to be 9 to 11 years, depending on the subtype of HIV.

HISTORY OF HIV / AIDS

Since its discovery, AIDS has caused an estimated 36 million deaths **worldwide** (as of 2012). In 2013 it resulted in about 1.34 million deaths. As of 2012, approximately 35.3 million people are living with HIV globally. HIV/AIDS is considered a pandemic a disease outbreak which is present over a large area and is actively spreading. Genetic research indicates that HIV originated in west central Africa during the late 19th or early 20th century. AIDS was first recognized by the United States **Centers for Disease Control and Prevention (CDC)** in 1981 and its cause HIV infection was identified in the early part of the decade.

In the early days, the CDC did not have an official name for the disease, often referring to it by way of the diseases that were associated with it, for example, **lymphadenopathy** the disease after which the discoverers of HIV originally named the virus.

In India 1986, the first known case of HIV was diagnosed by Dr. Suniti Solomon amongst female sex workers in Chennai, Tamil Nadu. Later that year, sex workers began showing signs of this deadly

disease. At that time, foreigners in India were traveling in and out of the country. It is thought that foreigners were the ones responsible for the first infections.

India had 2.395 million people living with HIV at the end of 2009, up from 2.27 million in 2008. Adult prevalence also rose from 0.29% in 2008 to 0.31% in 2009. Setting up HIV screening centre was the first step taken by the government to screen its citizens and the blood bank. To control the spread of the virus, the Indian government set up the National AIDS Control Program in 1987 to coordinate national responses such as blood screening and health education.

In 1992, the government set up the **National AIDS Control Organization (NACO)** to oversee policies and prevention and control programs relating to HIV and AIDS and the National AIDS Control Program (NACP) for HIV prevention. The State AIDS Control Societies (SACS) was set up in 25 societies and 7 union territories to improving blood safety. In 1999, the second phase of the National AIDS Control Program (NACP) was introduced to decrease the reach of HIV by promoting behavior change. The prevention of mother-to-child transmission program (PMTCT) and the provision of antiretroviral treatment In 2007, the third phase of the National AIDS Control Program (NACP III) targeted the high-risk groups, conducted outreach programs, amongst others. It also decentralized the effort to local levels and non-governmental organizations (NGOs) to provide welfare services to the affected.

ORIGIN OF HIV / AIDS

The African green monkey source of Simian Immunodeficiency Virus (SIV), the Sooty Mangabey source of HIV-2 and the Chimpanzee source of HIV-1. Both HIV-1 and HIV-2 are believed to have originated in non-human primates in West-central Africa and were transferred to humans in the early 20th century. HIV-1 appears to have originated in southern Cameroon through the evolution of SIV, a simian immunodeficiency virus (SIV) that infects wild chimpanzees.

LEGISLATION

HIV/AIDS (Prevention & Control) Bill 2014: A long awaited legislation that seeks to end stigma and discrimination against HIV positive persons in workplace, hospitals and society, while also ensuring their privacy was introduced in the Rajya Sabha on 11-2-2014.

MODE OF TRANSMISSION OF HIV / AIDS

HIV is transmitted by **Three main routes**: -

1. Sexual Contact
2. Exposure to infected body fluids or tissues
3. Mother to child during pregnancy, delivery, or breastfeeding (known as vertical transmission).

There is no risk of acquiring HIV if exposed to feces, nasal secretions, saliva, sputum, sweat, tears, urine, or vomit unless these are contaminated with blood. It is possible to be co-infected by more than one strain of HIV a condition known as **HIV super infection**.

1. Sexual - The most frequent mode of transmission of HIV is through sexual contact with an infected person. The majority of all transmissions worldwide occur through heterosexual contacts (i.e. sexual contacts between people of the opposite sex) however, the pattern of transmission varies significantly among countries. In the United States, as of 2009, most sexual transmission occurred in men who had sex with men, with this population accounting for 64% of all new cases. With regard to unprotected heterosexual contacts, estimates of the risk of HIV transmission per sexual act appear to be four to ten times higher in low-income countries than in high-income countries. In low-income countries, the risk of female-to-male transmission is estimated as 0.38% per act, and of male-to-female transmission as 0.30% per act; the equivalent estimates for high-

income countries are 0.04% per act for female-to-male transmission, and 0.08% per act for male-to-female transmission. The risk of transmission from anal intercourse is especially high, estimated as 1.4–1.7% per act in both heterosexual and homosexual contacts. While the risk of transmission from **oral sex** is relatively low, it is still present. The risk from receiving oral sex has been described as "nearly nil" however a few cases have been reported. The per-act risk is estimated at 0–0.04% for receptive oral intercourse. In settings involving prostitution in low income countries, risk of female-to-male transmission has been estimated as 2.4% per act and male-to-female transmission as 0.05% per act. Risk of transmission increases in the presence of many sexually transmitted infections and genital ulcers. Genital ulcers appear to increase the risk approximately fivefold. Other sexually transmitted infections, such as gonorrhea and bacterial vaginosis, are associated with somewhat smaller increases in risk of transmission. The viral load of an infected person is an important risk factor in both sexual and mother-to-child transmission. During the first 2.5 months of an HIV infection a person's infectiousness is twelve times higher due to this high viral load. If the person is in the late stages of infection, rates of transmission are approximately eightfold greater. Commercial sex workers (including those in pornography) have an increased rate of HIV. Rough sex can be a factor associated with an increased risk of transmission. Sexual assault is also believed to carry an increased risk of HIV transmission as condoms are rarely worn, physical trauma to the vagina or rectum is likely, and there may be a greater risk of concurrent sexually transmitted infections.

2. Body fluids - The second most frequent mode of HIV transmission is via blood and blood products. Blood-borne transmission can be through needle-sharing during intravenous drug use, needle stick injury, transfusion of contaminated blood or blood product, or medical injections with un-sterilized equipment. The risk from sharing a needle during drug injection is between 0.63 and 2.4% per act, with an average of 0.8%. The risk of acquiring HIV from a needle stick from an HIV-infected person is estimated as 0.3% (about 1 in 333) per act and the risk following mucous membrane exposure to infected blood as 0.09% (about 1 in 1000) per act. In the United States intravenous drug users made up 12% of all new cases of HIV in 2009, and in some areas more than 80% of people who inject drugs are HIV positive. HIV is transmitted in about 93% of Blood transfusions using infected blood. In developed countries the risk of acquiring HIV from a blood transfusion is extremely low (less than one in half a million) where improved donor selection and HIV screening is performed; for example, in the UK the risk is reported at one in five million and in the United States it was one in 1.5 million in 2008. In low income countries, only half of transfusions may be appropriately screened (as of 2008), and it is estimated that up to 15% of HIV infections in these areas come from transfusion of infected blood and blood products, representing between 5% and 10% of global infections. Unsafe medical injections play a significant role in HIV spread in sub-Saharan Africa. In 2007, between 12 and 17% of infections in this region were attributed to medical syringe use. The World Health Organization estimates the risk of transmission as a result of a medical injection in Africa at 1.2%. Significant risks are also associated with invasive procedures, assisted delivery, and dental care in this area of the world. People giving or receiving tattoos, piercings, and scarification are theoretically at risk of infection but no confirmed cases have been documented. It is not possible for **mosquitoes** or other insects to transmit HIV.

3. Mother-to-child -HIV and pregnancy and HIV and breastfeeding, HIV can be transmitted from mother to child during pregnancy, during delivery, or through breast milk. This is the third most common way in which HIV is transmitted globally. In the absence of treatment, the risk of transmission before or during birth is around 20% and in those who also breastfeed 35%. As of 2008, vertical transmission accounted for about 90% of cases of HIV in children. With appropriate

treatment the risk of mother-to-child infection can be reduced to about 1%. Preventive treatment involves the mother taking anti-retro viral during pregnancy and delivery, an elective **caesarean section**, avoiding breastfeeding, and administering antiretroviral drugs to the newborn. Anti-retro viral when taken by either the mother or the infant decrease the risk of transmission in those who do breastfeed. Many of these measures are however not available in the developing world. If blood contaminates food during pre-chewing it may pose a risk of transmission.

HOW IS HIV NOT TRANSMITTED

- You cannot get HIV from kissing, by hugging, or by shaking hands with somebody with HIV or any other normal social contact.
- Nor can you get HIV by being in the same place as someone with HIV, or by sharing household items such as crockery, cutlery, or bed linen.
- HIV is not passed on by spitting, sneezing or coughing.

SIGN & SYMPTOMS OF AIDS/HIV

1. Acute primary infection - Around 1-4 weeks after becoming infected with HIV, some people will experience symptoms that can feel like flu. These symptoms can happen because your *body is reacting to the HIV virus. Cells that are infected with HIV are circulating throughout your blood system.*

Symptoms can include:

- Fever (raised temperature)
- Body rash
- Sore throat
- Swollen glands
- Headache
- Upset stomach
- Body rash
- Joint aches and pains
- Muscle pain.

It is important that you always use a condom when having sex, especially if you think you have been exposed to HIV. It may be too early to get an accurate HIV test result at this stage (this can take anything from a few weeks to a few months), but the levels of virus in your blood system are very high at this stage.

2. The asymptomatic stage - Once the sero conversion stage is over, many people start to feel better. In fact, the HIV virus may not reveal any other symptoms for many years. Health professionals say this could be around 10 years. However, the virus will still be active, infecting new cells and making copies. Over time this will cause of damage to your immune system.

3. Symptomatic HIV infection -During the third stage of HIV infection there is usually damage to your immune system. There is not a test for AIDS and you can't inherit it. AIDS is a syndrome, and this means it is diagnosed from a set of symptoms that happen when you become very ill from a serious infection or disease.

Symptoms that you may have during this time can include:

- Weight loss
- Chronic diarrhoea
- Night sweats
- Fever
- Persistent cough
- Mouth and skin problems

- Regular infections
- Serious illnesses or disease

Stages of HIV Infection

There are **Three** main stages of HIV infection:

1. Acute Infection
2. Clinical Latency
3. AIDS

- 1. Acute Infection** - The initial period following the contraction of HIV is called acute HIV, primary HIV or acute retroviral syndrome. Many individuals develop an influenza like illness or a mononucleosis like illness 2–4 weeks post exposure while others have no significant symptoms. Symptoms occur in 40–90% of cases and most commonly include fever, large tender lymph nodes, throat inflammation, rash, headache, Sores of the mouth and genitals. The rash, which occurs in 20–50% of cases, presents itself on the trunk. Some people also develop opportunistic infections at this stage. Gastrointestinal symptoms such as nausea, vomiting or diarrhea may occur, as may neurological symptoms of peripheral neuropathy or Guillain-Barre syndrome. The duration of the symptoms varies, but is usually one or two weeks. Due to their nonspecific character, these symptoms are not often recognized as signs of HIV infection. Even cases that do get seen by a family doctor or a hospital are often misdiagnosed as one of the many common infectious diseases with overlapping symptoms. Thus, it is recommended that HIV be considered in people presenting an unexplained fever who may have risk factors for the infection.
- 2. Clinical Latency** - The initial symptoms are followed by a stage called clinical latency, asymptomatic HIV or chronic HIV. Without treatment, this second stage of the natural history of HIV infection can last from about three years to over 20 years (on average, about eight years). While typically there are few or no symptoms at first, near the end of this stage many people experience fever, weight loss, gastrointestinal problems and muscle pains. Between 50 and 70% of people also develop *persistent generalized lymphadenopathy*, characterized by unexplained, non-painful enlargement of more than one group of lymph nodes (other than in the groin) for over three to six months. Although most HIV-1 infected individuals have a detectable viral load and in the absence of treatment will eventually progress to AIDS, a small proportion (about 5%) retain high levels of CD4⁺ T cells (T helper cells) without antiretroviral therapy for more than 5 years. These individuals are classified as HIV controllers or long-term non progressors (LTNP). Another group consists of those who maintain a low or undetectable viral load without anti-retroviral treatment, known as "elite controllers" or "elite suppressors". They represent approximately 1 in 300 infected persons.
- 3. Acquired Immunodeficiency Syndrome** - Acquired immunodeficiency syndrome (AIDS) is defined in terms of either a CD4⁺ T cell count below 200 cells per μL or the occurrence of specific diseases in association with an HIV infection. In the absence of specific treatment, around half of people infected with HIV develop AIDS within ten years. The most common initial conditions that alert to the presence of AIDS are pneumocystis pneumonia (40%), cachexia in the form of HIV wasting syndrome (20%), and esophageal candidiasis. Other common signs include recurring respiratory tract infections. Opportunistic infections may be caused by bacteria, viruses, fungi, and parasites that are normally controlled by the immune system. Which infections occur depends partly on what organisms are common in the person's environment. These infections may affect nearly every organ system. People with AIDS have an increased risk of developing various viral-induced cancers, including Kaposi's sarcoma, Burkitt's lymphoma, primary central nervous system lymphoma,

and cervical cancer. Kaposi's sarcoma is the most common cancer occurring in 10 to 20% of people with HIV. The second most common cancer is lymphoma, which is the cause of death of nearly 16% of people with AIDS and is the initial sign of AIDS in 3 to 4%. Both these cancers are associated with human herpes virus 8. Cervical cancer occurs more frequently in those with AIDS because of its association with human papilloma virus (HPV). Conjunctival cancer (of the layer that lines the inner part of eyelids and the white part of the eye) is also more common in those with HIV. Additionally, people with AIDS frequently have systemic symptoms such as prolonged fevers, sweats (particularly at night), swollen lymph nodes, chills, weakness, and unintended weight loss. Diarrhea is another common symptom, present in about 90% of people with AIDS. They can also be affected by diverse psychiatric and neurological symptoms independent of opportunistic infections and cancers.

HOW TO PREVENT OF AIDS/HIV

- 1. Sexual contact** - Consistent **Condom** use reduces the risk of HIV transmission by approximately 80% over the long term. When condoms are used consistently by a couple in which one person is infected, the rate of HIV infection is less than 1% per year. There is some evidence to suggest that female condoms may provide an equivalent level of protection. Application of a vaginal gel containing Tenofovir (a reverse transcriptase inhibitor) immediately before sex seems to reduce infection rates by approximately 40% among African women. By contrast, use of the Spermicide nonoxynol-9 may increase the risk of transmission due to its tendency to cause vaginal and rectal irritation. Based on these studies, the World Health Organization and UNAIDS both recommended male circumcision as a method of preventing female-to-male HIV transmission in 2007. Whether it protects against male-to-female transmission is disputed and whether it is of benefit in developed countries and among men who have sex with men is undetermined. The International Antiviral Society, however, does recommend for all sexually active heterosexual males and that it be discussed as an option with men who have sex with men. Some experts fear that a lower perception of vulnerability among circumcised men may cause more sexual risk-taking behavior, thus negating its preventive effects. Programs encouraging sexual abstinence do not appear to affect subsequent HIV risk. Evidence of any benefit from Comprehensive sexual education provided at school may decrease high risk behavior. A substantial minority of young people continues to engage in high-risk practices despite knowing about HIV/AIDS, underestimating their own risk of becoming infected with HIV. Voluntary counseling and testing people for HIV does not affect risky behavior in those who test negative but does increase condom use in those who test positive. It is not known whether treating other sexually transmitted infections is effective in preventing HIV.
- 2. Pre-exposure** - Antiretroviral treatment among people with HIV whose CD4 count ≤ 550 cells/ μL is a very effective way to prevent HIV infection of their partner (a strategy known as treatment as prevention) Pre-exposure prophylaxis (PrEP) with a daily dose of the medications Tenofovir with or without Emtricitabine is effective in a number of groups including men who have sex with men, couples where one is HIV positive and young heterosexuals in Africa. It may also be effective in intravenous drug users with a study finding a decrease in risk of 0.7 to 0.4 per 100 person years. Universal precautions within the health care environment are believed to be effective in decreasing the risk of HIV. Intravenous drug use is an important risk factor and harm reduction strategies such as needle-exchange programme & opioid substitution therapy appear effective in decreasing this risk.
- 3. Post-exposure** - A course of anti-retroviral administered within 48 to 72 hours after exposure to HIV-positive blood or genital secretions is referred to as post-exposure

prophylaxis (PEP). The use of the single agent Zidovudine reduces the risk of a HIV infection five-fold following a needle-stick injury. PEP treatment is recommended after a sexual assault when the perpetrator is known to be HIV positive, but is controversial when their HIV status is unknown. The duration of treatment is usually four weeks and is frequently associated with adverse effects where Zidovudine is used, about 70% of cases result in adverse effects such as nausea (24%), fatigue (22%), emotional distress (13%) and headaches (9%).

4. **Mother-to-child - HIV and pregnancy**, Programs to prevent the vertical transmission of HIV (from mothers to children) can reduce rates of transmission by 92–99%. This primarily involves the use of a combination of antiviral medications during pregnancy and after birth in the infant and potentially includes bottle feeding rather than breastfeeding. If replacement feeding is acceptable, feasible, affordable, sustainable, and safe, mothers should avoid breastfeeding their infants however exclusive breastfeeding is recommended during the first months of life if this is not the case. If exclusive breastfeeding is carried out, the provision of extended antiretroviral prophylaxis to the infant decreases the risk of transmission. In 2015, Cuba became the first country in the world to eradicate mother-to-child transmission of HIV.
5. **Vaccination - HIV vaccine**, currently there is no licensed vaccine for HIV or AIDS. The most effective vaccine trial to date, RV 144, was published in 2009 and found a partial reduction in the risk of transmission of roughly 30%, stimulating some hope in the research community of developing a truly effective vaccine. Further trials of the RV 144 vaccine are ongoing.

TREATMENT OF AIDS/HIV

There is currently No Cure or effective HIV vaccine. Treatment consists of Highly Active Antiretroviral Therapy(HAART) which slows progression of the disease. As of 2010 more than 6.6 million people were taking them in low and middle income countries. Treatment also includes preventive and active treatment of opportunistic infections

1. **Antiviral therapy** - (*Stribild - a common once-daily consisting of elvitegravir, emtricitabine, tenofovir and the booster cobicistat*) Current HAART options are combinations (or "cocktails") consisting of at least three medications belonging to at least two types, or "classes," of antiretroviral agents. Initially treatment is typically a Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) plus two Nucleoside Analogue Reverse Transcriptase Inhibitors (NRTIs). Typical NRTIs include: zidovudine or tenofovir and lamivudine or emtricitabine. Combinations of agents which include Protease Inhibitors (PI) are used if the above regimen loses effectiveness. The World Health Organization and United States recommends antiretroviral in people of all ages including pregnant women as soon as the diagnosis is made regardless of CD4 count. Once treatment is begun it is recommended that it is continued without breaks or "holidays". Many people are diagnosed only after treatment ideally should have begun. The desired outcome of treatment is a long term plasma HIV-RNA count below 50 copies/mL. Levels to determine if treatment is effective are initially recommended after four weeks and once levels fall below 50 copies/mL checks every three to six months are typically adequate. Inadequate control is deemed to be greater than 400 copies/ML. Based on these criteria treatment is effective in more than 95% of people during the first year. Benefits of treatment include a decreased risk of progression to AIDS and a decreased risk of death. In the developing world treatment also improves physical and mental health. With treatment there is a 70% reduced risk of acquiring tuberculosis. Additional benefits include a decreased risk of transmission of the disease to sexual partners and a decrease in mother-to-child transmission. The effectiveness of treatment depends to a large part on compliance. & common adverse events include diarrhea, and an increased risk of cardiovascular disease.

2. **Opportunistic infections** - Measures to prevent opportunistic infections are effective in many people with HIV/AIDS. In addition to improving current disease, treatment with antiretroviral reduces the risk of developing additional opportunistic infections. Adults and adolescents who are living with HIV (even on anti-retroviral therapy) with no evidence of active tuberculosis in settings with high tuberculosis burden should receive Isoniazid preventive therapy (IPT). The tuberculin skin test can be used to help decide. If IPT is needed Vaccination against Hepatitis A & B is advised for all people at risk of HIV before they become infected.
3. **Diet** - *Nutrition and HIV/AIDS*, The World Health Organization (WHO) has issued recommendations regarding nutrient requirements in HIV/AIDS. A generally healthy diet is promoted. Some evidence has shown a benefit from micronutrient supplements. Evidence for supplementation with selenium is mixed with some tentative evidence of benefit. There is some evidence that vitamin A supplementation in children reduces mortality and improves growth. In nutritionally compromised pregnant and lactating women a multivitamin supplementation has improved outcomes for both mothers and children. Dietary intake of micronutrients by HIV-infected adults is recommended by the WHO, higher intake of Vitamin- A, Zinc, & Iron can produce adverse effects in HIV positive adults.

MATERIALS AND METHODOLOGY

Material and methods will be discussed under following headings.-

1. Sampling Area
2. Type of Study
3. Study Period
4. Study Population
5. Sampling methods
6. Method of Collection of Data
7. Statistical Analysis
8. Study Variables

1. SAMPLING AREA

Village- **Rampur**, Block & Teh.- **Patna**, District - Korea, State - Chhattisgarh

2. TYPE OF STUDY

Community based Observational study.

3. STUDY PERIOD

The total duration of research conduction is Two Months (1st November 2015 to 30th December 2015)

4. STUDY POPULATION

All Tuberculosis Patients who were registered at the Primary Health Centre (PHC), Rampur, during the above mentioned study period. Approximately, Male – 624 & Female – 573, Total = 1197

5. SAMPLING METHODS

Inclusion Criteria:

- 1) *AIDS patients aged 19 years and above.*
- 2) *Duration of AIDS more than 1 month.*

Exclusion criteria:

- 1) Patients with severely ill and not able to communicate. Who didn't participation in the study

The total sample size is **36 peoples**.

6. METHOD OF COLLECTION OF DATA

Prior informed written consent in the local language was taken from all the patients included in the study. For those who were illiterates, the consent was read out and explained to them in their

language and consent was obtained by taking their signature in the consent form.

The study tool consisted of following sections:- Socio-Demographic Profile - this section consists of socio demographic characteristics and the variables that were included were age, sex, locality, religion, education, occupation, side of lesion, types of cases, marital status, types of family, blood pressure, alcoholism, smoking, diet and socio economic.

7. STATISTICAL ANALYSIS

Mean and standard deviation of the scores are calculated for each of the socio-demographic variable and compared by Suitable statistical test like **t-test/ANOVA** are applied.

8. STUDY VARIABLES

I. Age:

We have arbitrarily classified age into <19 years, 19 to 62 years.

II. Sex:

We have classified into Male and Female.

III. Educational Status

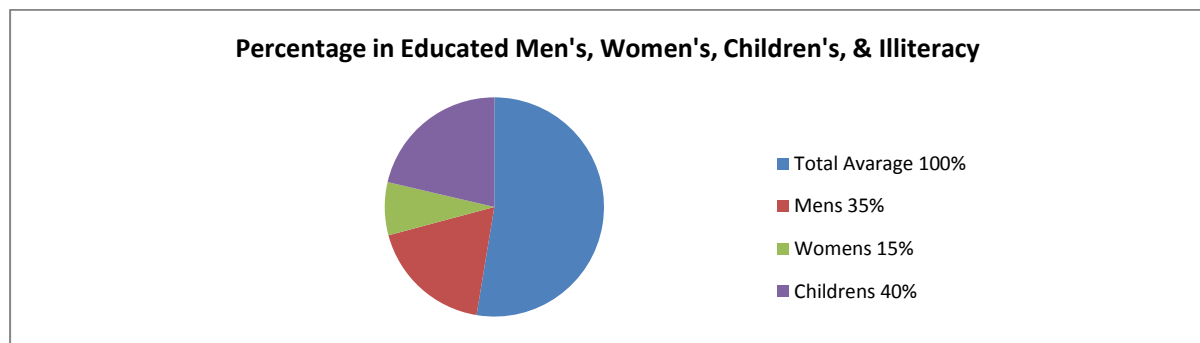
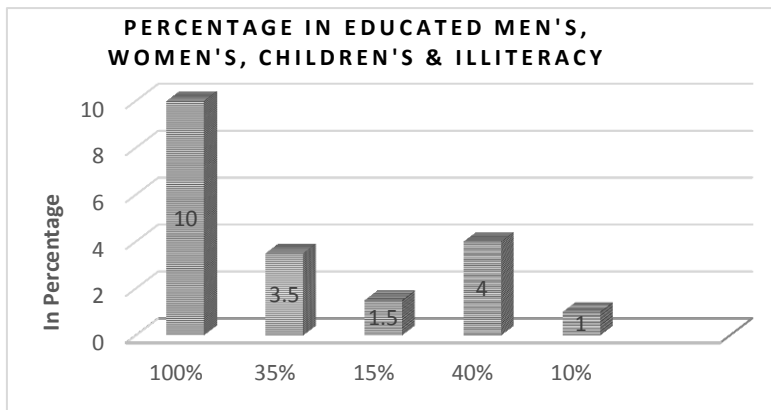
- **No Education:** The person who cannot read and write with understanding in any language.
- **Schooling:** The person who can read in any school level.

IV. Type of Family:

- Nuclear Family
- Joint Family
- Three Generation Family

OBSERVATION & RESULTS

Educated Men’s, Women’s, Children’s and Illiteracy in Percentage



(Fig. - Educated Men’s, Women’s, Children’s and Illiteracy in Percentage)

CONCLUSION

During the research, we came to know that peoples of rural areas are not able to provide proper knowledge. Because they don't have appropriate knowledge about HIV/AIDS, Overall, the unprotected relationship with multiple partners found to be most common risk factor for HIV

transmission in the study population. The higher incidence of past history of sexually transmitted disease increased the risk of acquisition of HIV infection. In addition, men with lower level of education and those who have the habit of using alcohol or drug are at increased risk of HIV through their sexual relationship.

Mostly peoples belong to the rural area and from below poverty level and because of the poverty they are not able to give proper attention for HIV/AIDS & own health and nutrition. So peoples suffer from AIDS.

The low literacy levels leading to less awareness among the potential high risk groups, gender disparity, sexually transmitted infections and reproductive tract infections both among men and women.

Now this research **more than 90%** peoples are good aware about HIV/AIDS, And successful organization of HIV/AIDS awareness camps. All these measures should be able to increase the awareness levels of the general population in rural areas to more than 90% peoples both Men's & Women's are aware.

REFERENCES

1. World Health Organization 2015.
2. Encyclopedia of Public Health 2008.
3. The Gale Encyclopedia of Medicine (4th Edition).
4. 'HIV & its Transmission' Centers for Disease Control & Prevention 2003.
5. WHO Staging System 2015.
6. 'Cunha, Burke' Antibiotic Essentials 2012.
7. Oxford handbook of HIV medicine & sexual Health (2nd Edition).
8. Basic Information about HIV & AIDS.
9. Davidson's Principles & Practices of Medicine.