

Prevalence and clinical presentation of HIV/AIDS in admitted  
Patient in Jimma University specialized hospital

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Jimma University

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## **Abstract**

### **Back ground**

Globally HIV/AIDS had a crisis over the health and economy of a country especially showing its devastating effect more on the developing countries. Ethiopia which faces the crises reported to have the 3<sup>rd</sup> highest number of infection in Africa according to UNAIDS estimate.

### **Objective**

To determine the magnitude, pattern of clinical manifestation, and socio demographic characteristics of HIV/AIDS patients.

### **Method**

A retrospective study was done in suspected and hospitalized HIV/AIDS patients from Jan. 1-Dec.30,2012 in Jimma university Specialized Hospital (JUSH). The data collection was conducted by clinical year students after being given short orientation

### **RESULTS**

The analysis of suspected and hospitalized HIV/AIDS patients 438(4%) were sero positive with the sex ratio of F:M 1.4:1 and the peak age group ranges 25-34(45.66%).The most affected occupation groups were housewives and merchants, 22.2% and 18.2%, respectively. Regarding marital status this study showed that married subjects were more affected (49.77%).

The commonest clinical manifestation of sero positive cases was weight loss > 10%(26.25) ,cough >10%(19.4), fever >1 month(11.4%), candidiasis (7.99%),diarrhea(5.77)

### **CONCLUSION**

This study showed that the prevalence of HIV/AIDS infection was more in the young and productive age group imposing an impact in the economy of the country and female are almost equally affected compared to males. Pul .TB being commonly diagnosed disease..

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## ABBREVIATION

**ART**- anti retro viral therapy

**HIV**- human immunodeficiency virus

**ELISA**- enzyme linked immune sorbent assay

**TB**- tuberculosis

**PCP**- pneumocystis carinii pneumonia

**ICSOL** – intra cranial space occupying lesion

**GBS** – Gullian bare syndrome

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background information

**Jimma University (JU)** is a public university in The Jimma zone of the central Oromia region of Ethiopia.

It offers various programs and courses of study, which lead toward degrees in different fields. The institution was established in December 1999 following the amalgamation of the Jimma college of Agriculture (founded in 1952) and the Jimma institute of Health sciences (founded in 1983).(1) JU's main campus is next to the former palace of the kings of the kingdom of Jimma.

The university campus is located in the city of Jimma 352 kilometers southwest of Addis Ababa covering 167 hectares. JU is Ethiopia's first innovative community-oriented education institution of higher learning, with teaching centers for health care student in Jimma, Omo, Shebe, Agaro, and Asendabo. [2]JU also publishes the biannual Ethiopian Journal of Health sciences, and launched the Jimma University Journal of Law in October 2007.

Ju is a pioneer in public health training. In collaboration with national and international partners, which includes the Federal ministry of Health, Ju is offering a new graduate program in the monitoring and evaluation of health programs and services.

Jimma University Specialized Hospital Has Four Major Department (Int. Medicine, Surgery, Pediatrics, Gynecology Obstetrics) and Four Minor Department

(Ophthalmology, Dermatology Pschiatery and Dentistry) They Give Service For Outpatient And Inpatient, Follow-Up.

The out patients activities are mainly ran by residents and interns it gives in patients services depends on the case and bed. It is staffed with seniors (internist, general surgeon, pediatrics, gynecologist, year1, year2, year3, year4, residents, intern, nurses, and clinical pharmacy.

## **1.2. STATEMENT OF THE PROBLEM**

HIV/AIDS is a global public health concern. It is one of the most challenging Health crises facing the world today. It is not only impact on the health of individual but also devastates families, communities and political stability of countries, especially in the poorer regions of the world. It threatens development, social cohesion, food security and life expectancy, imposing devastating economic burden that needs urgent attention (29)

An estimated 34.2 million people world – wide had HIV that causes AIDS in 2011, According to UNAIDS data, up 18percent on 2011, when 28.9 million living HIV. There were 2.1 million new HIV infections in 2011, including an estimated 330,000 among children (1)

AIDS related death fell for the 5<sup>th</sup> year running to 1.7 million, down from a peak of 2.3 million in 2005-2006. (1)

Sub-Saharan Africa remains the region hardest hit by HIV with 23.5 million HIV positive people in 2011, about 69 percent of the global total.

The number of new HIV infection in sub Saharan Africa has dropped to 1.7 million in 2011 from an estimated 2.6 million in 1997

Ethiopia faces an estimated over all HIV prevalence of 1.4 based on testing a sample of 5780 men and 5300 women age 15 to 49 who gave informed consent with in the individual region.

This testing found the prevailing rate varied from 0.2 in the SNNPR to a high of 6 percent (1).

Ethiopia, with a population of 83 million and per capita income of less than US 100 annually, has an estimated 2 million people living with HIV and the highest number. Of infection in Africa according to UNAIDS. It is also one of the world's poorest countries.

The epidemic situation has a marked difference between urban and rural area. HIV/AIDS epidemic seem to have peaked and stabilized at high prevalence level in urban areas while it is increasing gradually though at a much lower level in the rural part of Ethiopia. Most HIV/AIDS infection in Ethiopia is due to unsafe sexual contacts. The direct cause for the fast progression of the epidemic in Ethiopia are un protected sex and frequency of casual partners (26); despite the Ongoing efforts to educate Ethiopians about the deadly disease. A large portion of people living with HIV/AIDS in Ethiopia do not know their HIV status.

The social stigma attached to HIV/AIDS has placed additional strain on Ethiopians ability to fight the disease as people avoid diagnosis and treatment for of community rejection

## CHAPTER TWO:

### LITERATURE REVIEW

Acquired immunodeficiency syndrome (AIDS) is a life-threatening infection caused by the human immunodeficiency virus (HIV). According to the latest figures published in the UNAIDS/WHO 2006 AIDS Epidemic Update, an estimated 39.5 million people are living with HIV, world wide. In 2006, 29 million people died of AIDS-related illnesses all over the world(1

The recent data makes clear Africa's unfortunate position in the world wide HIV and AIDS epidemic, as the 19 countries worldwide with the highest prevalence of reported infections are all African countries with more than 24.5 million, and more than 60% of the HIV-infected population.

South Africa is reported to have the largest population living with the disease, at well over 5 million people infected, followed by Nigeria in the second place and India in the third largest population of HIV infected with more than 2 million people reported due to overall large population but with a prevalence rate of 0.30 in comparison to the prevalence rate of 0.60 in US and 18.10 in South Africa.(2)

As of 2009, it is estimated that there are 33.3 million people world wide infected with HIV (5)

On the more fortunate end of the spectrum, Svalbard is reported as having no cases of HIV/AIDS, while Bhutan has a much larger population but still only an estimated 246 cases through 2011.(5) In terms of prevalence, countries such as Afghanistan, and Cape Verde are reported to have the lowest prevalence of the disease among reported nations, at less than 0.1% of their population.(2)

As the majority of people infected with HIV are unaware they have the virus, it is reasonable to expect that there may be significant cases of under-reporting and inaccuracies in certain listed statistics. Sources may vary wildly between sources or between years as new or old information is discarded or acquired Documented do not give an accurate description of the epidemic, but does attempt to quantify actual known cases, as well as documented cumulative impact.

HIV/AIDS is a major public health concern and cause of death in many parts of Africa. Although Africa is home to about 69% of all people living with HIV and to 72% of all AIDS related death in 2009. (6)

South Africa is the worst affected region of Africa as well as the worst affected region in the world with epidemic reaching very high level in Swaziland, Botswana, Lesotho, South Africa, Zimbabwe, Zambia and Namibia. By contrast North Africa has low HIV/AIDS rates.

A minority of scientists claim that as many as 40% of HIV infections in African adults may be caused by unsafe medical practices rather than by sexual activity.(21) The world Health organization states that about 2.5% of HIV infections in sub-Saharan Africa are caused by unsafe medical injection practices and the “overwhelming majority” by unprotected sex.

HIV infection rates in East and central Africa are generally moderate to high. Uganda has registered a gradual decrease in its HIV rates from 10.6% in 1997, to a stabilized 6.5%-7.0% since 2001. This has been attributed to changing local behavioral patterns, with more respondents reporting greater use of contraceptives (23) and a two-year delay in first sexual activity as well as fewer people reporting casual sexual encounters and multiple partners. (23) Similarly, the HIV infection rate in Kenya dropped from around 14% in the mid-1990s to 5% in 2006.

Between 2004-2008, Tanzania had a prevalence rate of 3.4%, with Rwanda maintaining a regional low of about 3.0% the region has generally moderate levels of infection of both HIV-1 and HIV-2 The onset of the HIV epidemic in west Africa began in 1985 with reported cases in cote d'Ivoire, Benin and Mali[119]Nigeria, Burkina Faso, Ghana, Cameroon, Senegal and Liberia followed in 1986. Sierra Leone, to go and Niger in 1987; The Gambia, Guinea-Bissau, and Guinea in 1989; and finally Cape Verde in 1990.

HIV prevalence in West Africa is lowest in Chad, Niger and Mali, and highest in Burkina Faso, cote d'Ivoire and Nigeri. Has the second largest number of people living with HIV in Africa after south Africa, although the infection rate (number of patients relative to the entire population) based upon Nigeria's estimated population is much lower, generally believed to be well under 7% as opposed to south Africa's which is well in to the double-digits(nearer30%).19]

The main driver of infection in the region is prostitution. In the Ghana capital Accra, for example, 80% of HIV infections in young men had been acquired from women who sell sex(17). In Niger, the adult national HIV prevalence was 1% in 2003, yet surveys of sex workers in different regions found a HIV infection rate of between 9 and 38

Sub-saran in 2007. 76% of AIDS death occurred in this region .its prevalence increasing at high rate during 1997 later began to decline (7)

Ethiopia faces an epidemic among sub population and geographic area with an estimated overall HIV prevalence rate of 1.4%, based on testing as ample of 5,70 men and 5,300 women age 15 to 49 who gave informed consent, with in the individual regions, this testing found the prevailing rate varies from 0.2% in the SNNPR to 6%in Gambia region. While previous estimations were higher expansion of surveillance data and improved analysis resulted in significant lower estimation for 2005. Based on the same survey HIV prevalence has declined to about 3.2% to 4.7% in urban areas.

The primary mode of HIV transmission in Ethiopia is heterosexual contact in young women are more vulnerable to infection than young men, urban women area three times as likely as to be infected as urban men, although in rural areas the difference between genders is reliable population at higher risk for HIV infection include sex workers, police officer and members of military.(1 )

In northern Uganda Hospital over all HIV prevalence was 42%. 52.6% in Gynecology department and 13.2% in general medical ward in study done in Jimma and Yergalem Hospital most patients are admitted to medical ward (16,17,18)

In a study done in 1986 in Tikur Ambassa hospital the average age was 39.2 with the range of 16-78 and over 75% of patients were under 40 year. TB is the commonest infection presenting in unusual and aggressive way which was similar with the study done in Yirgalem hospital

Followed by oral candidiasis (15.9), toxoplasmosis (9.72%), reactivated herpes zoster (2.08), (14,18,20). In Shashemnie 44.4% of patients with TB were infected with HIV in 1995 (28).

In 2005 the prevalence of sero-positivity on suspected admitted patients to Jimma hospital was 53.3 and the highest figure ranges between 25 and 29 yrs affecting the younger and sexually active age group males are almost equally affected with M:F ratio being 1.15:1. The commonest clinical presentation were weight loss >10% accounting 68.9% followed by fever >01 month 64.3% and diarrheal for > 1month (37.9%) 24 .



## **CHAPTER THREE**

### **SIGNIFICANT OF STUDY**

HIV/AIDS is the major cause of death with TB, Malaria in our country. So it is hoped that this study may help to have recent highlight on the prevalence of HIV/AIDS, socio demography characteristic ,clinical presentation on JUSH that may help us to know awareness of people about the disease which is the major site for solving the problem.

## **CHAPTER FOUR**

### **OBJECTIVE**

General objective:

To determine magnitude pattern of clinical manifestation of Hospitalized HIV/AIDS patient

Specific objective

- 1 To determine socio demographic characteristic of HIV/AIDS among Hospitalized patients
- 2, To identify risk factors related to HIV/AIDS transmission
3. To determine the WHO stage for all admitted HIV/AIDS patient
4. To assess the profile of opportunistic infection associated with HIV/AIDS in JUSH

## CHAPTER FIVE

### METHODS AND MATERIALS

**Study Area and period;** - the study area was Jimma university specialized hospital which is a referral hospital for south western part of Ethiopia and located to the south west of Addis Ababa.

Study design;- A retrospective study in HIV/AIDS suspected and admitted patients in JUSH.

**Source population** –source population all patients admitted to Jimma hospital from Jan 1-Dec-30, 2012

**Study population;** all HIV cases admitted to (medical, Gynecology, pardiatics and surgical wards during the study periods from Jan 1-dec, 30, 2012

**Sample size and sampling technique** No sampling was taken as all HIV suspected cases during the study period out of all admission were included in the study.

#### **Data collection and measurements**

Records of patients with HIV/AIDS was seen in (gyn, peditrics, internal medicine, surgery) from Jan1,2012 to Dec. 30,2012G.C which was identified from documentation office of JUSH and a structured data collection format were used to review the data from clinical records.

## **VARIABLES**

**Dependent:** ELISA result

**Independent:** Age, sex, marital status, Risk factor , clinical manifestation, stool result admission in days.

### **Data quality assurance**

Data was collected by medical students. after a brief training was given about the purpose of the study as well as the methodology

### **Data Analysis**

Data was cleaned, edited and analyzed using SPSS for window version 16.0 statistical test for significance the level of significance of 59%

## OPERATION DEFINITION

AIDS: The presence of reliably diagnosed opportunistic disease that is at least moderately indicative of underlying defect in cell mediated immunity in the absence of known cause of underlying immune defect such as inorganic, iatrogenic immune suppression or malignant neoplasm multiple sexual contact, those people of either sex who have more than one sexual partner

Heterosexuals-are those sexual orientation of persons of opposite sex

Homosexuals;- are those who have sexual orientation(attraction)between the same sex

Positive case; is meant to specify those cases who turned to be positive for the HIV infection of serological testing ELISA

Negative case: is meant to specify that case that turned to be negative for HIV infection of serological testing using ELISA

HIV/AIDS suspected patients: those are patients suspected to have HIV/AIDS by respective department senior and general practitioner.

## **ETHICAL CONSIDERATION**

Permission was secured from the Hospital Medical Director's office .patient record were kept confidential

### **Limitation of the study**

- 1 Incomplete information about the study population some patients records may hide some of their sexual behaviors .
2. In complete records both medical and laboratory
3. un unable to find the exact number of case
4. Illegible hand writing

## CHAPTER SIX

### RESULTS

A total of 9000 suspected cases were screened of which 438 (4.8%) were positive . Out of this 178 (40.6%) were male and 260(59.3%) females . The majority of the affected group lies among the age group of 25-34yr(45.66%) followed by the age group >35(31.5%) yrs and it decreases at extremities of the age(table1).

Concerning the marital status of the sero positive patients the prevalence of sero positivity among married,single, widowed, divorced being 49.9% ,31.96% ,11.4%, 6.84% respectively(table1).

Most of the seropositive patients 300(68%) were admitted to internal medicine department 50(11.1%) in pediatrics 45(10.27) in surgery 43(9.8%) in Gyn/obs(table2).

The most commonly diagnosed illness in sero positive cases was pulmonary TB 138(31%). Disseminated TB and severe pneumonia were 88(20%) and 60(13.69%), respectively.

The rest were severe acute malnutrition 50 (11.4%), meningitis 38(8.67%),pcp 18(4.5%) Toxoplasmosis and ICSOL (tuberculoma/brain tumor 2.9% and 1.36 % respectively and five patients (1.14%) who were seropositive had GI onset sepsis and chronic gastro enteritis.

There is 5 (0.91%) case of gulli an barr syndrome, 3 case of Kaposi's sarcoma(table3).

on the stool examination most are not done .There was 21 hook worm which take (4.74%)(table4).

The duration of hospital stay in sero positive cases ranged from 11-20 days 160(36.5%) more than 20 days in 200 (45.66%)(table5).

The occupational distribution showed that most affected group were house wives and merchants accounting for 22.2%, 18.2% respectively ( table6).

The other are gov employed,farmer,driver,un employed, were 13.01%,10.27%, 9.3%,9.13% respectively

The clinical presentation of sero positive patients was as followed 115(26.25%) had weight loss>10% of the body weight 85 (19.4%), cough >1 month 50(11.4%), fever and weight loss 35(7.99%) oral candidacies 25(5.77%) are presented with diarrhea.(table7

From those sero positive patients in surgical department 10 patient has multiple pyomyositis three cholelithiasis, six wound dehiscence and the other gastric cancer .

Three patients admitted to GYN/OBS with utero vaginal prolapsed and TB, pelvic abscess

And wound dehiscence plus sepsis.



## CHAPTER SEVEN

### TABLES

Table-1: distribution of socio demographic characteristics with sero positivity of HIV/AIDS of Suspected patients admitted to JUSH from jan.1 to dec.30,2012.m

<b>Characteristics</b>	<b>ELISA</b>	<b>PERCENT</b>
Age <15	60	13.69
15-24yr	40	9.13
25-34yr	200	45.66
>35	138	31.5
Total	438	100
Sex- male	178	40.63
Female	260	59.36
Total	438	100
Married	218	49.77
Single	140	31.96
Widow	50	11.4
Divorced	30	6.84

Table;- 2 Frequency of distribution of sero positivity by admission department jimma

University specialized hospital from jan . 1, 2012 to dec. 30,2012

Department	Number	Percent
Medicine	300	68.49
Pediatrics	50	11.41
Surgery	45	10.27
Gynaecology&OBS	43	9.8

Table-3 Distribution of HIV/AIDS patients by common diagnoses in JUSH from 2011 to 2012

DIAGNOSIS	NUMBER	PERCENT
pul .TB	138	31
diss.TB	88	20
Sever pneumonia	60	13.69
Sever acut malnutrition	50	11.4
Meningitiis	38	8.67
Pcp	18	4.1
Toxoplasmosis	13	2.9
Chronic gastro enteritis	10	2.28
Paresis or plegia secondary to ICSOL(tubercloma)	6	1.36
Sepsis	5	1.14
Strock	4	1.14
GBS	5	0.91
Kaposis	3	0.68

Table 4: Frequency Of Distribution Of HIV/AIDS Pts By Stool Exam.

Results In JUSH From 2010 To 2011

Stool examination result	Number	Percent
WBC AND RBC	88	20
Gardia	70	15
Strongloids	45	10.2
Ascrisa larva	41	9.36
Hook worm	21	4.74
NOT done	173	39.4

TABLE 5: FREQUENCY OF DISTRIBUTION OF HIV/AIDS patients by duration of hospital stay in JUSH FROM Jan.1 dec.30 ,2012

Durations of Hospital. Stay	Number	Percent
<11	78	17.8
11-12	160	36.5
>20	200	45.66
Total	438	100

Table 6 distribution of HIV test result by occupation of admitted

Patients to JUSH, from Jan .1 to dec. 30, 2012.

OCCUPATION	ELISA	Percent(%)
	Number	Number
House wife	99	22.2
Merchants	80	18.2
gov-employed	57	13.01
Farmer	45	10.27
Driver	41	9.3
Unemployed(adult	40	9.13
Daily laborer	40	9.13
Student	20	4.56
Tella or tej seller	7	1.598
Carpenter	5	1.14
Soldier	4	0.913

Table 7 distribution of sero positive patients by their clinical

Manifestation admitted to JUSH from Jan. 1, 2011 to dec. 302012,

Signs and symptoms	Number	Percent
Wt loss>10%	115	26.25
Cough>1month	85	19.4
Fever>1month	50	11.4
Candidacies	35	7.99
Diarrhea >1 month	25	5.77
Body weakness	15	3.42
Dysphasia	11	2.511
Others	102	23.28

## CHAPTER EIGHT

### DISCUSSION

The prevalence of suspected sero positivity among admitted cases to Jimma University Hospital

In four departments is 4.8% which is similar to the study done previously in this hospital and study done in Addis Ababa University (31,32).

Most of sero positive cases were admitted to medical ward which account (68.49%) and pediatric ward the reason being most HIV positive cases have medical problems.

The age range between (25-34) followed by group age (15-24) being high in HIV/AIDS prevalence.

This shows that the most affected age being sexually active and productive age group . In this study, high occurrence of sero positivity was in those who were married 49.77%, in house wives and merchants accounting 22.22%, 18.2% respectively.

Females were almost more affected by HIV/AIDS than males the ratio being 1.4:1 which is opposite to previous study finding which showed males more affected than females(32).

Since several clients would be infected by a lower number of sex workers, the male to female ratio would be high later when the epidemic spreads to the regular partner i.e wives of sex workers clients the ratio tends to decrease(33)

The study showed that tuberculosis is the commonest diagnosis made in sero positive case similar to the study done in Tikur Anbessa hospital(32). Disseminated form of the disease was common reinforcing the idea disseminated TB is more common in sero- positive patients.

This study also showed that neurologic manifestations are commonly diagnosed .

Toxoplasmosis the first which is 2.9% then paresis or plegia secondary to ICSOL 1.36%

were the common diagnosed neurologic diseases. This finding is comparable with the study done in yirgalm hospital(14,18 ).



## CHAPTER NINE

### Conclusion and recommendation

#### Conclusion

In this study still there is high prevalence of HIV/AIDS and the most affected age group was productive age group which shows we need to give awareness about the disease.

The female to male ratio is 1.4 to 1. suggesting predominant heterosexual transmission (2). however earlier studies have found a higher male to female ratios of AIDS case in Ethiopia(3,5)

The other was females are predominant than males which is shows in the regions most males are more than one wife which increase the occurrences of HIV predominant in females

The second most affected group is in pediatrics due to vertical transmission. Still we should Reassure about ART prophylaxis to the infected mother and exposed baby. because Children are the basic part of next Generation.

The longer hospital stay that patient suffer from hospital acquiring infection have Impact on the family, community, the country at large. Finally 4.8% showed poor Documentation keeping and because their documentation could not be found. .

## **recommendation**

In spite of all measures done there seems to be more to be done to educate and organize the youth to fight against HIV/AIDS. In this study data were not available in order to assess the risk behaviors of all the patients.

In sub-saharan africa where tuberculosis is highly prevalent.it is said to be commonest presentation next to oral candidiasis in HIV patients (16) here,TB is found to be the leading specific diagnosis similar to Tsega E reports(32

finally for better control in these areas health education should be given in extensive way on prevention

of infection and people should be encouraged on VCT and follow up should be advised for all patients with initiation of antiretroviral therapy.

## REFERENCES

1. UNAIDS.WHO; AIDS Epidemics up date, Dec. 2012; 19-20
2. Central intelligence Agency (2011).”CIA WORLD FACTBOOK –HIV/AIDS adult prevalence rate” Retrieved 2011.
3. Central intelligence Agency (2011)”CIA WORLD FACTBOOK 2011-people living with the HIV virus”. Retrieved 2011.
4. Central intelligence Agency (2011)” CIA WORLD FACTBOOK 2011-deaths” Retrieved 2011.
5. Worldwide AIDS &HIV statistics. AVERT. 31 December 2009. Archived from the original on 2011-04-06. Retrived 26january 2011.
6. ``Inder Singh, Executive vice president for the clinton foundation, on Expanding Access to health care``. Wharton Magazine. 2011-03-29. Retrived 2011-08 10
7. ``African Migration and the Brain Drain- David Shinn``. Sites. Google.com. 2008-06-20. Retrived2011-03-29.
8. ``Health systems in Malawi``. Ruder Finn blog. Retrieved 2 November 2010.
9. Robert L Broadhead and Adamson S Muula (2002,Augest). Creating a medical school for Malawi: problems and achievements. BMJ. 2002 Augest17;325(7360):384-387-  
<http://www.ncbi.nlm.nih.gov/pmc/articles/pmc1123892/>
10. Garrett, Laurie. 2007. The challenge of global health.Foreign Affairs 86(1):27
11. Africa: HIV/AIDS through Unsafe Medical care. Africation.org. Retrived on 2010-10-25.
12. WHO Expert group stresses that unsafe sex is primery mode of transmission of HIV in Africa. WHO.int(2003-03-14). Retrieved on 2010-10-25.
13. The world Bank –life expectancy at birth , total (years)
14. Abcde” Religious and cultural traits in hiv/aids epidemics in sub-saharan Africa”(pdf). Retrieved 2010-06-27..
15. Poku, n.k.and whiteside, a ?(2004) The political economy of aids in africa’, 235.
16. Andersson n, Cockcroft a. choice disability abd hiv status: evidence from a cross-sectional study in Botswana, Namibia and Swaziland. Aids and behavior 2012;16(1):189-191.

17. The HIV/AIDS Epidemic In South Africa-Fact Sheet”(PDF).Retrieved 2011-03-29.
18. country programme outline for Swaziland , 2006-2010. United nations development Program.<http://www.undp.org.sz/index.php?option=comdocman&task=docdownload&gid=19&Itemid=67>.Retrieved November 22, 2009.
- 20.Swaziland, mortality country fact sheet 2006. Who. Retrieved november22,2009
21. ‘‘dual epidemic’ threatens africa’’.bbc news.2007-11-02. Retrieved 2011-03-29.
22. Stop TB partnership. London tuberculosis rates now at Third world proportions. Pr newswire Europe ltd.4 december 2002.retrieved on 3 october 2006.
23. ‘‘UNCEF funds Teach AIDS work in Botswana’’. Teach AIDS. 2 june 2010.retrieved 24 january2011.
24. Beyeberu A. prevalence, socio-demographic factors and clinical presentation of HIV/AIDS in admitted patiens, jimma hospital, 1997;30-5
- 25 kekebo d. prevalence and clinical manifestation of HIV/AIDS in admitted patients yergalem, 2001.40-45
- 26 Ministry Of Health. AIDS In Ethiopia.5<sup>th</sup> Ed.2004
- 27 Aquire Immune Def. Syndrome Journal Sept. 20031:34(1).62-9
28. derege k.et al the hiv epidemic and stage of surveillane on Ethiopia emj 38(4).2000
29. Horn Of Africa. Journal Of AIDS Vol. 1(11),2004:36
- 30 The Official Website Of Jimma University

31. Negasa H. Kenfene H. Profile of AIDS case in Ethiopia. *Ethiop. J. Health Dev.* 1990; 4: 213-200

32. Tsegaye E. The demographic social clinical presentations of one hundred Ethiopian patients with HIV infection. *Ethiop. Med.* 1990; 28: 81-88

33. Beyeberey A. Prevalence, socio-demographic factors and clinical presentation of HIV/AIDS in admitted patients Jimma Hospital 1997: 30-5



