

SEXUALLY TRANSMITTED DISEASES (STDs) AND ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) IN NIGERIA.

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The sexually Transmitted Diseases constitute major public health problems in Nigeria. There is early sexual maturity and considerable sexual activity between 9 and 15 years of age. Although there is a high awareness of the condom, people are unwilling to use them despite evidence of multiple sexual exposures.

The STDs, including HIV infections, are on the increase. Tuberculosis is also on the increase because of a HIV/AIDS epidemic. Both categorical and integrated approach to the management of STDs and AIDS are being recommended. There is a need to step up basic research into the biology of HIV and subsidise the treatment of AIDS. Efforts at vaccine development should be initiated to stem the worsening HIV epidemic.

INTRODUCTION

The sexually Transmitted Diseases (STDs) constitute major public health problems in Nigeria, especially with the advent of HIV infection during the last decade. Failure to diagnose and treat the traditional infections such as syphilis, chlamydia and gonorrhoea can have deleterious effects on pregnancy and the newborn (such as miscarriage, prematurity, congenital and neonatal infections, blindness) and are common (1) other complications particularly in women, such as pelvic inflammatory disease, ectopic pregnancy, infertility and cervical cancer have grave social, demographic and economic consequences.

RISK FACTORS ASSOCIATED WITH STDs AND HIV INFECTION

There are several factors associated with the transmission of STDs and HIV in Nigeria. Sexual maturation of Nigerian boys start between 9 and 15 years (2). In a study on prepubertal gonorrhoea in Ilorin, it was found that there was considerable sexual activity by children aged between 9 and 15 years (3).

The keeping of multiple sexual partners have also been reported among married men and long distance drivers in Nigeria (4,5). This is compounded by the fact that people who have multiple partners are unwilling to protect themselves with the condom. In a study conducted in a rural community in South West Nigeria in 1993, it was found that although 94.7% of 302 candidates aged between 20 and 54 years admitted hearing about the condom, only 51.3% admitted ever using it (6). In the study at Ilorin among long distance truck drivers, 91% of 180 drivers admitted having multiple partners. Casual sex rate was 43%, and commercial sex rate was 30%. Although 50% admitted ever

using a condom, only 19% used them regularly (5).

SEXUALLY TRANSMITTED DISEASES

Table 1 shows the prevalence of STDs in treatment centers in Nigeria. The most common causes of genital discharge were Non-gonococcal genital infections (26.37%), post-pupertal gonorrhoea (18.03%), trichomoniasis (9.78%) and candidiasis (9.62%). The commonest genital ulcers were chancroid (4.28%), primary syphilis (2.28%), and genital herpes (2.2%).

PENICINASE-PRODUCING NEISSERIA GONORRHOEA (PPNG)

There have been several reports that show the high prevalence of PPNG strains in Nigeria and are shown in table 2 (8-12). The figures reported from various centers are 74.2% in Ilorin, 78% in Nnewi, 83% in Jos, 87% in Benin-City and 90% in Lagos. These figures show that penicillin has no more place in the treatment of gonococcal infections in Nigeria.

HEPATITIS B VIRAL INFECTIONS

Routine diagnose of Hepatitis B Viral Infections in Nigeria is often based on the identification of the surface antigen (HbsAg). Until facilities became readily available to detect HbsAg, which are associated with infectivity, we will not know what percentage of these cases are actually infective.

Table 3 shows current carriage rates for HbsAg using antenatal patients (16%), STD patients (36-42.2%) and blood donors (12.3-21.7%) in some centers in Nigeria (13,14).

These high rates should be of great concern because of the dangers of developing liver cirrhosis and hepatocellular carcinoma.

HIV SEROPREVALENCE

Sentinel surveillance shows that there has been an increase in HIV seroprevalence in all the states of Nigeria over the years, with the exception of Kano State, which had an initially high rate of about 9% in 1992. Sentinel surveillance at antenatal clinics

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shows HIV prevalence of 1.8% in 1990, 3.8% in 1993, 4.5% in 1995, 5.4% in 1999 and 5.8% in 2001 (National AIDS/STD Control Programme). There is also an increase in HIV seroprevalence among the various population groups such as commercial sex workers, STD patients, patients with tuberculosis, long-distance truck drivers and antenatal patients (15,16,17).

If a prevalence of 5.8% reported for antenatal patients in Nigeria represents what happens in the general population of those considered not to be at high risk of being infected with HIV; it means that about 2-5million Nigerians might have been infected with HIV, if 20% of infected persons develop clinical AIDS within the next 5 years it means, by the year 2005, we may have about 600,000 AIDS cases to treat. The AIDS burden alone would be a serious social and economic burden.

CLINICAL FEATURES OF AIDS CASES IN NIGERIA

Clinical AIDS is a common finding in many health facilities in Nigeria. Although presentation varies from centers to center, the common modes of presentation is shown in Table 4. Progressive weight loss (69%), chronic diarrhoea (61%), skin rashes (38%), generalized lymphadenopathy (37%) and prolonged fever (22%) are the most frequent presenting features. Persistent cough (17%) and tuberculosis (17%) are also significant features (15,18).

AIDS AND TUBERCULOSIS

HIV seropositivity in Nigeria has been significantly associated with tuberculous infection (Table5). The upsurge in tuberculosis infections seen in several health centers in Nigeria is therefore to be explained by the worsening HIV epidemic (19,20). The strains of *Mycobacteria* associated with HIV infection as reported by these authors are however not different from those affecting people without HIV infection. They are *M. Tuberculosis* (70%), *M. Avium* (20%), and *M. Kansasii* (10%). 60% and 40% of the HIV strains were HIV-2 and HIV-1 respectively among patients with tuberculosis.

MANAGEMENT OF STDs

By 1992, the National AIDS and STD Control Programme (NACP) found that there were 19 STD treatment centers in the country. Treatment,

was mainly categorical in nature, being based on specific diagnosis and treatment. The experiences of practitioners at these centers assisted the NACP in producing a "Manual of Sexually Transmitted Diseases" which recommended first and second-line regimen for the various STDs (7).

This specialist based approach is often sited in urban centers with laboratory support that are not available at PHC level. The syndromic approach is therefore now being introduced. This longitudinal or integrated approach recognizes the limitation of resources for health care and is in line with WHO recommendations (21.) It uses algorithms for the treatment of genital ulcers and genital discharge.

The algorithms for genital discharge is based on the premise that the commonest cause of genital discharge are chlamydia and *N. gonorrhoea*. It is then appropriate to give treatment for the two conditions. The algorithms for genital ulcers are based on the fact that chancroid and syphilis are the most common cause of genital ulcers. Treatment is then given for the two conditions.

This integrated approach has not been fully implemented in Nigeria. It has however been found to be very useful in Tanzania where it played a significant role in reducing HIV incidence. It was shown that improved STDD care, integrated at PHC level, resulted in a reduction of HIV incidence by 42% over a 2 years period of study (21).

MANAGEMENT OF AIDS

The management of AIDS has been that of the treatment of the various opportunistic infection. Recently Glaxo Wellcome has introduced two antiretroviral drugs; Retrovir (Zidovudine, AZT) and Eпивir (lamivudine) that are used in combination therapy. These drugs have been found useful in prolonging the life of patients but their limitation is their high cost.

STD	PREVALENCE (%)
Non-gonococcal genital infection	26.3
Gonorrhoea Post-pubertal	18.03
(a) Pre pubertal	2.02
Trichomoniasis	9.78
Candidiasis	9.62
Venereophobia	4.28
Syphilis	
(a) Primary	2.28
(b) Post-Primary	2.02
Herpesvirus type II:	
(a) Ulcers	2.2
(b) Seroprevalence	13.0
Genital warts	1.87
Lymphogranuloma venereum (LGV)	1.47
HIV	5

TABLE 1
PREVALENCE OF SEXUALLY TRANSMITTED DISEASES
IN TREATMENT CENTRES IN NIGERIA.

*SOURCE: NATIONAL AIDS/STD CONTROL PROGRAMME
STD: SEXUALLY TRANSMITTED DISEASE

AUTHOR	LOCATION	RATE (%)
Odugbemi, et al, 1986	Ilorin	74.2
Ameli and Anyiwo, 1997	Nnewi	78
Bello et al, 1996	Jos	83.3
Obaseki-Ebor et al, 1985	Benin-City	87
Olukoya, et al, 1988	Lagos	90

TABLE 2
PENICILLINASE-PRODUCING NEISSERIA
GONORRHOEA (PPNG) IN NIGERIA

GROUP OF PEOPLE	RATE (%) BY	
	AUTHOR	
	Sada, et al 1995	Olaleye, et al 1996
Antenatal Patients	16	n.d
STD Patients	36	42.2
Blood Donors	21.7	12.3

n.d. = not done.

TABLE 3
HEPATITUS B SURFACE ANTIGENAEMIA IN NIGERIA

CONDITION	RELATIVE FREQUENCY
Progressive Weight Loss	69%
Chronic Diarrhoea	61%
Skin Rashes	38%
Generalized lymphadenopathy	37%
Prolonged Fever	22%
Prolonged Cough	17%
Tuberculosis	15%
Oral Thrush	14%
Generalized Kaposi's Sarcoma	5%
Neurological manifestation	5%

TABLE 4
CLINICAL PRESENTATION OF AIDS CASES IN NIGERIA*

*SOURCE: NATIONAL STD/AIDS CONTROL PROGRAMME

DESCRIPTION	GROUP OF PATIENTS		
	TUBERCULOSIS	CONTROL	
TOTAL	(TB-VE)		
Number screened	188	348	536
Number seropositive for HIV	10	3	13
& HIV seropositive	5.3**	0.9**	2.4

TABLE 5
PREVALENCE OF HIV ANTIBIOTICS IN TUBERCULOSIS
PATIENTS AND CONTROLS*

* From Idigbe et al, 1994

** P<0.001

% OF TOTAL TB ISOLATES BY HIV SEROSTATUS
MYCOBACTERIAL STRAINS

	HIV + VE (N = 10)	HIV + VE (N = 130)
M. Tuberculosis	70	73
M. Avium	20	0.6
M. Kansasii	10	11.8
M. Bovis	-	8.4
M. Fortuitum	-	5.1
M. Xenopi	-	1.1

TABLE 6
MYCOBACTERIAL STRAINS ISOLATED IN NIGERIA BY HIV
SEROSTATUS

Adapted from Idigbe et al, 1994

CONCLUSION

STDs and AIDS constitute a major burden for the health sector in Nigeria. Both categorical (specialist based) and longitudinal (syndrome-based) approaches should be adopted for the management of STDs. There is a need to heavily subsidize the treatment of AIDS because the available specific antiretroviral agents are too expensive.

In a dynamic world, little progress can only be made in our efforts to combat the AIDS epidemic in Nigeria without adequate funding for basic research into the pathogenesis of HIV. It is therefore recommended that efforts should be made to concentrate on the basic biology of HIV, vaccine development and clinical trials that have not previously been in focus in Nigeria.

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