HIV Infection Rate Among Newly Recruited Senior Cadres In A Nigerian Security Agency

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ABSTRACT:

OBJECTIVE: To determine the rate of HIV infection among newly recruited personnel in a Nigerian security agency.

MATERIALS/ METHODS: Four hundred and thirty one security officers were screened for HIV antibodies. Double ELISA technique and Immunocomb II, HIV I and II (Orgenics Isreal) were employed for the test.

RESULTS: HIV infection rate of 1.8% was obtained. The ratio of infected men to women is approximately 2:1. The largest HIV seropositive cases were found among officers in age group 25-28years.

CONCLUSION: The overall HIV infection rate of 1.86% obtained appear low compared to general national average of 5.4% and 33% for commercial sex workers.

KEYWORD: HIV/AIDS, Pandemic, Prevalence Rate, Epidemic

INTRODUCTION:

Following the detection of first cases of HIV/AIDS in the early 1980's, the HIV/AIDS incidence has increased rapidly worldwide. The pandemic continues to spread across continents with increasing number of people being infected each day. At the end of 1998, an estimated 33.4 million people were infected with HIV worldwide coupled with 16,000 new cases emerging per day. The majority of HIV infections constituting about 31.1 million (93 percent) have occurred in Africa[1].

The largest numbers of HIV infected individuals are heterosexual young men and women living in sub-saharan Africa including Burkina Faso, Coted'ivoire, Ghana and Nigeria. This group accounts for about 60 percent of the world's total HIV infected persons and almost 90 percent of the current 21 million HIV infections in adults and adolescents in Africa[2]. WHO[3,4] predicts that by the end of the year 2000, there will be up to 20-40 million people living with HIV/AIDS including 15 million AIDS orphans, 9million of whom are in sub-saharan Africa.

HIV epidemics have progressed with alarming rate in various populations affecting all age groups. WHO[2] reported that the rates of newly acquired HIV infections are highest in the 15 to 40 years old groups among both females and males in most sub-saharan Africa[5].In Nigeria, it is this age group that is regularly recruited into the security agencies including military and paramilitary institutions.

During 1999/2000 recruitment season, a screening exercise was conducted at Aminu Kano Teaching Hospital, Kano for senior Officewrs in two categories viz: A and B comprising senior and

very senior cadres respectively. It was aimed to determine the rate of Hiv infection amongst this group of security personnel and to compare the rate of infection between the groups for both males and females; as well as determine the overall infection rate among them. At present, we are not aware of any data on the prevalence rate of HIV infection among Officers recruited for any security outfit; military or para-military service in Nigeria.

MEN, MATERIALS AND METHODS:

A total of 431 security personnel were screened for HIV infection at Aminu Kano Teaching Hospital, Kano. Of this number,211 officers formed group A comprising 188 males and 23 females. The second group, B had 220 members with 23 women and 197 men. Standard aseptic procedures were used in sample collection and processing. Using ELISA Method (Genie II)[6,7] all samples were screened for Hiv antibodies. Every positive serum sample with the first ELISA was subjected to another different method and kit (Immunocomb). Immunocomfirmatory kit (HIV ½ comb Firm II) [8] was then employed for greater assurance. The results were then released afterwards with strict confidentiality and necessary counseling.

RESULTS: The following results were obtained. Tables 1A and 1B indicates the rate of Hiv infection among male and female officers in group A and B. Out of 211 candidates tested in group A comprising 188 males and 23 females, 3(0.69%) and 2(0.46%) reacted positively to the HIV antibodies test respectgively. In group B with 197 men and 23 women, HIV antibodies were detected in 2(0.46%) and 1 (0.23%) for both sexes respectively.

Overall, out of 431 officers screened in both groups (A and B), 8(1.86%) were positive for HIV antibodies comprising 5 men (1.16%) and 3 women (0.69%). However, considering overall HIV infection rate in individual group, we observe that 5 officers (2.37%) and 3 (1.36%) were positive for the test for groups A and B respectively.

By ranks, all the security personnel were recruited for the exercise in two categories viz: senior cadres (A) and very senior cadres (B). Whereas majority of senior cadres are in age bracket 23-26years (157 out of 211), very senior officers (196 out of 220) belong to 25-28 year age group. Most officers in both categories are in age group of 25- 28(299) and most positive cases were found here.

TABLE 1:LEVEL OF HIV INFECTION AMONG MALES AND FEMALES SENIOR SECURITY PERSONNEL IN GROUP A AND B

	GROUP A		GROUP B		GRAND TOTAL	
SEX	No. TESTED	No. (+)	No. SCREENED	No. (+)	TOT. No. TESTED	TOT. No. [(+)(%)]
MALE	188	3(1.59)	197	2(1.02)	385	5(1.29
FEMALE	23	2(8.69)	23	1(4.35)	46	3(6.52)
TOTAL	**211**	**5(2.37)**	**220**	**3(1.36)**	**431**	**8(1.86)**

TABLE 1A: LEVEL OF HIV INFECTION AMONG MALES AND FEMALES SENIOR SECURITY PERSONNEL IN GROUP A

SEX	NUMBER TESTED	NUMBER POSITIVE
MALE	188	3 (1.59)
FEMALE	23	2 (8.69)
TOTAL	**211**	**5 (2.37)**

TABLE 1B: LEVEL OF HIV INFECTION AMONG MALES AND FEMALES SENIOR SECURITY PERSONNEL IN GROUP B

SEX	NUMBER SCREENED	NUMBER POSITIVE

MALE	197	2 (1.02)
FEMALE	23	1 (4.35)
TOTAL	**220**	**3 (1.36)**

TABLE 2: HIV SEROPOSITIVITY ACCORDING TO AGE DISTRIBUTION AMONG THE TWO CARDRES (GROUP A/B) OF SECURITY OFFICERS EXAMINED

	GROUP A			GROUP B		GRAND TOTAL
SEX	NUMBER	NUMBER		NUMBER	NUMBER	TOTAL
TOTAL						
	TESTED	POSITIVE		SCREENED		
POSITIVE		NUMBER	NUMBER			
		TESTED	POSITIVE (%)			
19 - 20	5	-	-	-	5	-
21 - 22	26	-	4	-	29	-
23 - 24	77	1	1	-	78	1
25 - 26	80	2	55	1	135	3
27 - 28	23	2	141	2	164	4
29 - 30	-	-	19	-	19	-
GRAND TOTAL		211	5 (2.37)	220	3 (1.36)	431
8 (1.86)						

TABLE 2A: HIV SEROPOSITIVITY ACCORDING TO AGE DISTRIBUTION AMONG THE TWO CARDRES (GROUP A) OF SECURITY OFFICERS EXAMINED

AGE IN YEARS	NUMBER TESTED	NUMBERPOSITIVE
19 - 20	5	-
21 - 22	26	-
23 - 24	77	1
25 - 26	80	2
27 - 28	23	2
29 - 30	-	-
GRAND TOTAL	211	5 (2.37)

TABLE 2B: HIV SEROPOSITIVITY ACCORDING TO AGE DISTRIBUTION AMONG THE TWO CARDRES (GROUP B) OF SECURITY OFFICERS EXAMINED

AGE IN YEARS	NUMBER TESTED	NUMBERPOSITIVE
19 - 20	-	-
21 - 22	4	-
23 - 24	1	-
25 - 26	55	1
27 - 28	141	2
29 - 30	19	-
GRAND TOTAL	220	3 (1.36)

DISCUSSION:

Analysis of our results shows that out of the 431 senior officers screened for HIV infection, 385(89. 32%) are males while 46(10.67%) are females; the average ratio being 8:1. Form the two groups, 8 officers (1.86%) made up of 5(1.16%) men and 3 (0.69% women were infected with HIV. The proportion (1.86% of HIV infection among the subjects appear quite low compared to national average of women attending antenatal care (ANC) 4.5%, sexually transmitted disease (STD) patients 7%, and commercial sex workers 33% [9]. However this is comparable to the rate of HIV infection among people with leprosy in Plateau State [10]. The age range of those infected by HIV is between 23 and 28 years. This is consistent with the findings [5,11,12] all over the world where most HIV positive cases fall between 15 and 40 years. These are sexually active members of the society (whether married or single) with greater tendencies for adventurous social life. Our studies showed that infected men outnumbered infected women by

a factor of approximately 2:1. The outcome is in agreement with other works[4] done elsewhere in Africa. This may be attributed to such factors as keeping of multiple partnership and frequent practice of men visiting commercial sex workers. On the other hand, considering that a relatively fewer

women (46, 10.6%) were investigated in the present studies as compared to 385 (89.33%) men i.e. ratio 1:8; the lower arte of HIV infection among women security officers may not be considered as being less significant than that of their equal number of both sexes were screened. Furthermore, the HIV infected women members have equal tendency and capacity for further spread of HIV infection among the populace as their male counterparts. Irrespective of gender, high cadres of security agencies are associated with high mobility and robust social nehaviours, which may contribute to high level of sprea of HIV AIDS.

The outcome of the current study showed HIV proportion of 1.86 percent amongst the security personnel investigated. Though the rate appears low when compared with the national average of other subpopulation groups in Nigeria such as ANC, (4.5%), it may not be assumed to be less significant in view of the alarming rate at chich HIV AIDS is spreading all over the world. Hence health education among security agents and institutions will help to control the scourge among the security agencies, military and paramilitary groups in Nigeria. Further studies are needed in this area of endeavour.

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