

NATIONAL AIDS CONTROL PROGRAMME

REVIEW AND ANALYSIS OF AIDS NOTIFICATIONS
IN TANZANIA 1983 - 1989

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PREPARED BY
DR. R. O. SWAI
EPIDEMIOLOGY UNIT, NACP

These cases were reported mainly from the Muhimbili Medical Centre. Up to June, 1989 the total for this set of data 4,996. These cases were reported by sex and therefore the other demographic features are not known. This is the number that has officially been notified to the WHO.

In order to rectify this situation the NACP has planned the following measures:

Reporting of AIDS cases

From now on, hospitals will report to their respective Regional Medical Officer monthly. The RMOS will compile all the regional data and submit them to the MOH on a monthly basis as well. Through this process regions lagging behind in reporting will be picked up early.

UTILIZATION OF AIDS CASE NOTIFICATION FORMS:-

To avoid a situation where we collect bare figures, every AIDS case which has satisfied the clinical criteria and is reported MUST be reported using the AIDS notification form (NACP - 5). This form will record all the patient's information relevant to HIV transmission. Enough of these forms will be printed and distributed to all hospitals in the country. Workshops are planned to train clinicians on how to fill in the forms.

AIDS CASE REGISTERS

All hospitals reporting AIDS cases will keep a patients register. These registers will be produced centrally together with the case notification forms and will be distributed to all hospitals.

AIDS CASES NOTIFIED THROUGH THE NACP - 5 FORM:

The NACP - 5 Form is one of the forms that has been in use for reporting AIDS cases. In this form the patients information relevant to HIV information is recorded. A compilation of all the forms (NACP - 5) received by the MOH since 1983 from the regions (since the AIDS epidemic started) was done and this totalled up to 1167- up to Sep. 1989. The distribution of these forms by region is shown in table 2.

Overall only 15.3% of all AIDS cases were reported using the NACP-5. There is not a single region where the NACP-5 forms sent to the MOH tallied those figures reported by other means. Three regions i.e. Dodoma, Kigoma, and Morogoro had sent in more NACP-5 forms than had been recorded by other means.

Two regions Dar es Salaam and Kigoma which had reported the highest numbers of AIDS cases had sent in only 31 (0.8%) and 5 (0.2%) forms respectively. Mara region which has reported 89 cases has sent only one NACP-5 form. It is evident that a lot of improvement is required in our reporting system. The two columns being compared in table 2 should tally exactly. The 1667 NACP-5 forms were sent from 40 hospitals all over the country. The hospitals which have sent in NACP-5 forms are shown in Table 3.

CHARACTERISTICS OF AIDS PATIENTS IN TANZANIA

The following is an analysis of 1667 AIDS cases reported from 40 hospitals all over the country. Of the total 704 (42.2%) were females and 945 (56.7%) were males. Information was missing on the sex of 18 (1.1%) cases. The male:female ratio was 1.3:1. There was a tendency to report only the cases whose HIV status was known. This should not have been the case because the main diagnostic criteria was a clinical one. Of the 1667 cases, 119 (7.1%) were HIV negative and 1242 (74.5%) were HIV positive. The HIV status of 306 cases (18.4%) was not known.

The distribution of AIDS cases by age is shown in table 4. From this table which is the largest analysis of AIDS patients in Tanzania so far the following comments can be made.

1. The prevalence of 4.6% among the 0-4 age group can be attributed mainly to transplacental transmission of HIV and partially to blood transfusion.
2. The prevalence in the following age groups 5 - 9 and 10 - 14 is relatively small and this could possibly be due to transmission through blood transfusion.
3. If we consider the 15 - 24 age group in which the sexual activity begin, females are leading with the prevalence of 6.2%. One possible explanation to this is that females mature earlier than males thus also begin sexual activity earlier than their male counterparts.
4. The 15 - 49 age group constitutes 82% of all AIDS cases. This is the period of sexual activity. Taking into consideration that HIV infection taken 3 - 10 years to develop into AIDS the bulk of infection takes place between these age 14 and 44 (17.3) and 47 - 3). This group include the young school children and middle aged people. These groups should form the target of control efforts.

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5. Later on in life at 50 - 65 + years the prevalence falls again. This age group comprises 2.3% of all the cases. This corresponds to consolidation of marriage bonds and thus with more stable sex relationships.

CLINICAL FEATURES OF AIDS

Clinically AIDS can present itself in a multitude of ways. The frequency of different clinical features in the study sample is shown in table 5.

The leading clinical feature was loss of weight presenting in 87.3% of patients. Other common features were fever, general body weakness and diarrhoea which presented in 75.5%, 75.1%, and 59% of the patients respectively.

OCCUPATIONS OF AIDS PATIENTS:

AIDS patients come from different walks of life professions. In analysis of 1667 patients those categories or occupations which had more than 10 patients are shown in Table 6.

It is difficult to say for sure whether the risk of infection is related to the profession or to behaviour of the individual or both. Of the 18 nurses who appears in the sample, they were all females.

MODES OF HIV TRANSMISSION:

HIV is transmitted mainly through 3 modes:

1. Sex
 - Heterosexual
 - Homosexual
 - Bisexual
2. Parenteral
 - Transfusion of blood and blood products
 - Skin piercing activities with contaminated instruments.
3. Mother to child - whereby about 20 - 50% of infected mother transmit infection to their off spring during pregnancy and at or after delivery.

From the present analysis the contribution of the various modes in the HIV transmission process is shown in table 7.

It is evident that the heterosexual mode is the predominant one contributing about 90% of all the transmissions.

SEXUAL PARTNERS AND AIDS

It is now well known that in Tanzania HIV transmission occurs mainly through heterosexual activities. Table 8 show the distribution of AIDS patients by their sex partners. It is evident that AIDS patients engage in multiple partners sex. More than 80% of AIDS patients had 2 or more sex partners. It is difficult to predict how the 14.9% of the patients who had only one sex partner got the infection. From this analysis, the magnitude of non sexual HIV transmission can be approximated to 4.5%. This could possibly be attributed to the transplacental transmissions, blood donations and other skin piercing activities.

RISK ACTIVITIES

There are some activities such as travelling abroad, receiving blood transfusion and unauthorised injections which are considered to pose a risk of getting infected with HIV. from the analysed data not all patients provided information to questions asking them whether they had participated in these activities: Table 9 to 11 show how the patients responded to these questions. It would seem that patients who had travelled outside Tanzania were more likely to be HIV positive than those who had not. This is however not case if you consider having had blood transfusion or unauthorised injections. This fact further supports the hypothesis that blood transfusion and unauthorised injections are not major modes of HIV transmission in Tanzania.

CONCLUSION

From this analysis which is the first of its type and magnitude since the AIDS epidemic started in this country, the following remarks can be made.

1. The coverage of reporting from the regions is very patchy. Furthermore the completeness of reporting is very low. Most of the parts in the reporting forms are not filled in. This is reflected by large numbers of patients in the missing information column in the tables presented.
2. If the quality of reporting can be improved, a lot of information on the epidemiology of AIDS and HIV infection can be obtained from the collected data.
3. It is hoped that this first analysis of AIDS data will stimulate practising physicians and Regional Medical Officers to report more accurately and regularly so we can build a clearer picture of AIDS epidemic in our country.

TABLE I

REPORTED AIDS CASES BY REGIONS: 1983 - 1989 (JUNE)

REGION	1983	1984	1985	1986	1987	1988	1989	TOTAL
1. Arusha				10	37	170	71	288
2. Coast			1	3	75	145	-	224
3. Dar es Salaam			51	420	999	1623	838	3931
4. Dodoma				7	40	57	-	104
5. Iringa			1	2	65	237	217	522
6. Kagera	3	103	216	525	817	475	-	2139
7. Kigoma				3	47	59	-	109
8. Kilimanjaro		1	7	28	171	248	215	670
9. Lindi				1	8	36	38	83
10. Mara			-	3	27	69	-	99
11. Mbeya			-	16	192	511	-	719
12. Morogoro			-	11	77	137	-	225
13. Mtwara			1	2	15	72	-	90
14. Mwanza			15	39	117	277		448
15. Rukwa			-	1	4	85		90
16. Ruvuma				20	24	27	-	71
17. Singida			-	6	66	123	220	417
18. Shinyanga			-	8	23	113	41	185
19. Tabora		2	3	1	53	173	-	232
20. Tanga		-	-	13	67	130	49	259
T O T A L	3	106	295	1119	2926	4767	1689	10905

TABLE No. 2:

AIDS CASES REPORT BY REGIONS TO MOH
THROUGH DIFFERENT METHODS

REGION	TOTAL NO. OF AIDS REPORTED TO MOH	NO. OF AIDS CASES REPORTED THROUGH NACP - 5	% CASES REPORTED THROUGH NACP 5
1. Arusha	288	116	57.6
2. Coast	224	91	40.6
3. Dar es Salaam	3931	31	0.8
4. Dodoma	104	146	140.4
5. Iringa	522	195	37.4
6. Kagera	2139	5	0.2
7. Kigoma	109	125	114.7
8. Kilimanjaro	670	41	6.1
9. Lindi	83	16	19.3
10. Mara	99	1	1.0
11. Mbeya	719	172	23.9
12. Morogoro	225	228	101.3
13. Mtwara	90	2	2.2
14. Mwanza	448	47	10.5
15. Rukwa	90	6	6.7
16. Buvuma	71	46	67.6
17. Singida	417	124	29.7
18. Shinyanga	185	27	14.6
19. Tabora	232	192	82.8
20. Tanga Foreign	259	52 2	20.1
TOTAL	10,905	1667	15.3

Table No. 3

HOSPITALS WHICH HAVE SENT NACP -5

FORMS TO THE MINISTRY OF HEALTH

1982, - 1989

HOSPITAL	Freq.	Percent	Cum.
ARUMERU	5	0.3%	0.3%
ARUSHA	27	1.6%	1.9%
BABATI	4	0.2	2.2%
BULINGWA	1	0.1%	2.2%
DODOMA	143	8.6%	10.8%
HORUMA	1	0.1%	10.9%
IGONGWE	34	2.0%	12.9%
IGUNGA	1	0.1%	13.0%
IKONDA	76	4.7%	17.6%
IRINGA GOVT:	106	6.4%	24.0%
K. C. M. C.	6	0.4%	24.4%
KABANGA	64	3.8%	28.2%
KASULU	3	0.2%	28.4%
KIBAHA	45	2.7%	31.1%
KIBONDO	24	1.4%	32.5%
KILOSA	15	0.9%	33.5%
KILWA	5	0.3%	33.7%
KIOMBOLI	7	0.4%	34.1%
KISARAWE	35	2.1%	36.2%
KITETE	68	4.1%	40.3%
LITTEMBO	16	1.0%	41.3%
LUGALA	12	0.7%	42.0%
LUSHOTO	46	2.4%	44.4%
MACRAME	40	2.5%	46.9%
MAFINGA	10	0.6%	47.5%
MEATU	2	0.1%	47.7%
MILIO MISSION	1	0.1%	47.8%
MMC	59	2.3%	67.1%
MONDULI	6	0.4%	67.5%
MOROGORO	131	7.9%	75.3%
MOUNT MERU	71	4.3%	79.6%
MUREZA	10	0.6%	80.2%

Table No. 4

DISTRIBUTION OF AIDS CASES (n=1667) BY AGE GROUP

AGE	MEN		WOMEN		MISSING		TOTAL	
		%		%		%		%
0-4	147	2.8	28	1.7	2	0.2	77	4.6
5-9	5	0.3	2	0.1	0	0	7	0.4
10-19	0	0	2	0.1	1	0.1	3	0.2
15-19	16	1.0	46	2.8	4	0.4	66	4.0
20-24	86	5.2	166	10.0	0	0	252	15.1
25-29	210	12.6	166	10.0	2	0.2	378	22.7
30-34	206	12.4	113	6.8	2	0.2	321	19.3
35-39	132	7.9	68	4.1	1	0.1	201	12.1
40-44	68	4.1	23	1.4	0	0	91	5.5
45-49	52	3.1	12	0.7	0	0	64	3.8
50-54	15	0.9	4	0.2	0	0	19	1.1
55-59	11	0.7	0	0	0	0	11	0.7
60-64	5	0.3	0	0	0	0	5	0.3
65+	4	0.2	0	0	0	0	4	0.2
UNKNOWN	88	5.3	74	4.4	6	0.4	168	10.0
TOTAL	945	56.8	704	42.3	18	1.1	1667	100.0

Table No.5

THE FREQUENCY OF CLINICAL MANIFESTATIONS
AMONG 1667 AIDS PATIENTS

CLINICAL FEATURE	PRESENT %	ABSENT %	MISSING %
1. Weight Loss	1456 (87.3)	169 (10.1)	42 (2.5)
2. Weakness	1252 (75.1)	365 (21.9)	50 (3.0)
3. Diarrhoea	995 (59.7)	626 (37.6)	46 (2.8)
4. Fever	1259 (75.5)	373 (22.4)	35 (2.1)
5. Kaposi	95 (5.7)	1514 (90.8)	58 (3.5)
6. Candidiasis (Oral)	562 (33.7)	1055 (63.3)	50 (3.0)
7. Herpes	119 (7.1)	1486 (89.1)	62 (3.7)
8. Pruritis	439 (26.3)	1169 (70.1)	59 (3.9)
9. Pneumonia	872 (52.3)	749 (44.9)	46 (2.8)
10. Lymphadenopathy	352 (21.1)	1260 (75.6)	55 (3.3)
11. Neurological Manifestations	211 (12.7)	1394 (83.6)	62 (3.7)
12. Meningitis	44 (2.6)	1556 (95.3)	67 (4.0)

Table 6:- Distribution of AIDS cases by profession and sex.

Profession	Missing Cases	S		E		X		Total	%
		Male	%	Female	%				
Bar Maid	0	(0)	1	(0.1)	18	(1.1)	19	(1.1)	
Business	1	(0)	162	(9.7)	41	(2.4)	203	(12.2)	
Child	1	(0.1)	50	(3.0)	30	(1.8)	81	(4.8)	
Clerk	0	(0)	41	(2.4)	13	(0.8)	54	(3.2)	
Driver	0	(0)	44	(2.6)	0	(0)	44	(2.6)	
Housewife	1	(0.1)	0	0	138	(8.3)	139	(8.3)	
Labourer	0	(0)	11	(0.6)	2	(0.1)	13	(0.8)	
Nurse	0	(0)	0	(0)	18	(0.1)	18	(1.1)	
Officer	0	(0)	29	(1.7)	4	(0.2)	33	(2.0)	
Peasant	4	(0.2)	324	(19.4)	292	(17.5)	620	(37.1)	
Student	1	(0.1)	6	(0.4)	4	(0.2)	11	(0.6)	
TPDF	1	(0.1)	44	(2.6)	5	(0.3)	50	(3.0)	
Teacher	0	(0)	11	(0.6)	11	(0.6)	22	(1.3)	
Technician	0	(0)	11	(0.6)	0	(0)	11	(0.6)	
Un-employed	0	(0)	30	(1.8)	5	(0.3)	35	(2.1)	
Watchaman	0	(0)	14	(0.8)	0	(0)	14	(0.8)	
Others	10	(0.6)	170	(10.2)	123	(7.4)	303	(18.1)	
TOTAL	18	(1.1)	948	(56.8)	704	(42.2)	1670	(100)	

Table No. 7

CONTRIBUTION OF VARIOUS MODES IN HIV TRANSMISSION

<u>Suspected Mode</u>	<u>Cases</u>	<u>%</u>
1. Hетеросексуальный	1170	70.2
2. Гомосексуальный	7	0.4
3. Бисексуальный	34	2.0
4. Сироты + Дети	91	5.5
5. Missing information	365	21.9
TOTAL	1,667	100

Table 8.

AIDS Patient according to the number of their sex partners

HIV Test	Number of Sex Partners							Total
	0	1	2-5	6 -20	21-50	51-200	201+	
UNKNOWN	17	57	181	53	0	0	0	368
NEGATIVE	5	25	67	18	0	3	1	119
POSITIVE	54	168	768	254	0	9	2	1255
TOTAL	76	250	1016	325	0	12	3	1682
%	4.5	14.9	60.4	19.3	0	0.7	0.2	100

Table 9 - 11 Showing distribution of HIV status by participation in risk activity.

HIV TEST	MISSING	INJECTION		TOTAL
		N	Y	
Missing	230	10	66	306
N	112	2	5	119
P	1003	36	206	1245
Total	3345	48	277	1670

Chi square = 20.16
 Degrees of freedom = 4

P value = 0.00046369

TABLE 9.

HIV TEST	MISSING	BLOOD		TOTAL
		N	Y	
Missing	63	222	21	306
N	36	92	11	119
P	204	957	64	1245
TOTAL	285	1271	116	1670

Chi square = 5.09
 Degrees of freedom = 4

P value = 0.27803648

Table 10

Table 11.

HIV TEST	MISSING	N	TRAVEL		TOTAL
			Y	N	
Missing	44	94	168	306	
	17	57	45	119	
	194	545	506	1245	
TOTAL	255	696	719	1670	

Chi square = 23.97

Degrees of freedom = 4

p value = 0.00008106