

HIV ANTENATAL SURVEY REPORT - 1999

1. INTRODUCTION:

HIV/ AIDS is the most serious and devastating disease that faces the world today. Available information is showing that developing countries are most affected. HIV/ AIDS prevalence are important because they enable us to estimate the number of people that are infected with HIV/ AIDS virus and also allow the progression of the epidemic to be monitored. It is estimated that the average life expectancy in South Africa fell from 65 to 55 years between 1995 and 1999.

In 1990 the National Department of Health instituted a mechanism to monitor the HIV epidemic in South Africa and since then a series of anonymous unlinked surveys of HIV have been conducted yearly amongst women attending antenatal clinic in public facilities with the aim of monitoring the stage of epidemic has reached and assessing whether intervention strategies may be impacting on the epidemiological profile of HIV/ AIDS. The 1999 HIV/ Antenatal survey is the tenth annual national survey and these surveys form the cornerstone of HIV surveillance in South Africa.

2. AIMS AND OBJECTIVES OF THE HIV SURVEY:

The aim of the survey is to obtain data/ statistics that will help health personnel in planning, decision making, implementing and evaluating programmes that are aiming at the prevention and control of the HIV/ AIDS epidemic.

Specific objectives:

- To determine the prevalence of HIV in women attending antenatal care clinics.
- To monitor trends of HIV infection in women attending antenatal clinics.
- To determine the prevalence of HIV in each region and in different age categories.

3. SURVEY METHODOLOGY:

3.1 Study design:

Unlinked cross sectional survey was conducted among pregnant women attending antenatal clinics of the public health sector in South Africa. The choice of pregnant women is based on international scientific practice and are normally preferred as they are sexually active, constitute an easily identifiable, accessible and stable population and are more likely than other groups to be representative of the general population. In addition, this group obtains health care facilities where blood is drawn as part of routine medical services offered for women's health. Pregnant women attending health clinics for the first time during the current pregnancy in the period 1 to 31 October 1999 were selected.

3.2 Sample size and sentinel sites:

For the whole South Africa a total of 16 841 women were included from 487 sites/ clinics in 1999. A systematic cluster random sample was used in which weighting is conducted using the probability proportional to size technique. 58 sites were selected in the Free State province and the sample size for the Free State was 1 200 but due to problems only

1 098 (91.5%) blood specimen were taken. At each selected site/ clinic all first time antenatal clinic attendants were selected. As only public sector health facilities are sampled there is an inherent under representation of race groups e.g. number of white and Indian women are typically small.

3.3 Study administration:

The provincial coordinator was responsible for planning the survey e.g. before the study a letter has been written to all regional managers to inform them about the study and blood tubes were distributed to the selected sites. The provincial coordinator and provincial information officers/ statistical advisors visited the sites in order to identify problems experienced by the staff, to give support and guidance, monitor the process and overseeing the execution of the survey in general. Monitoring was done on a weekly basis and about 38 (65.5%) sites were visited and clinic staff was instructed to provide the provincial office (data analysis unit) with the progress report and problems that are encountered on a weekly basis.

3.4 Data collection:

Data was collected by the health personnel in the selected sites over a period of one month. Before withdrawing blood from the clients, permission, consent and information on the reasons for taking blood was given to clients.

3.5 Quality control:

Quality control was done by managers, coordinators and the statistical advisors from the Provincial office. Of the total selected clinics (58) 38 (65.5%) were visited for quality control.

3.6 Data processing and analysis:

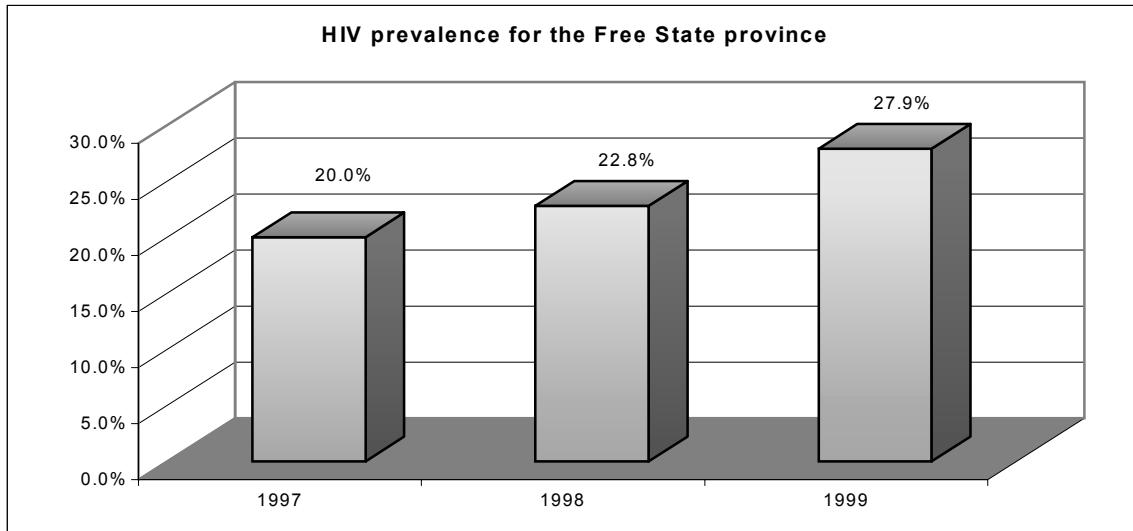
Data analysis was done using the EPI info6 and STATA software packages. Copies of an EPI info6 program modified for the purpose of the survey were made available to each provincial survey coordinator for data entry.

4. SURVEY RESULTS:

4.1 HIV prevalence rates for Free State province 1997 – 1999

The HIV prevalence rate for the Free State province is reflected in the bar diagram below.

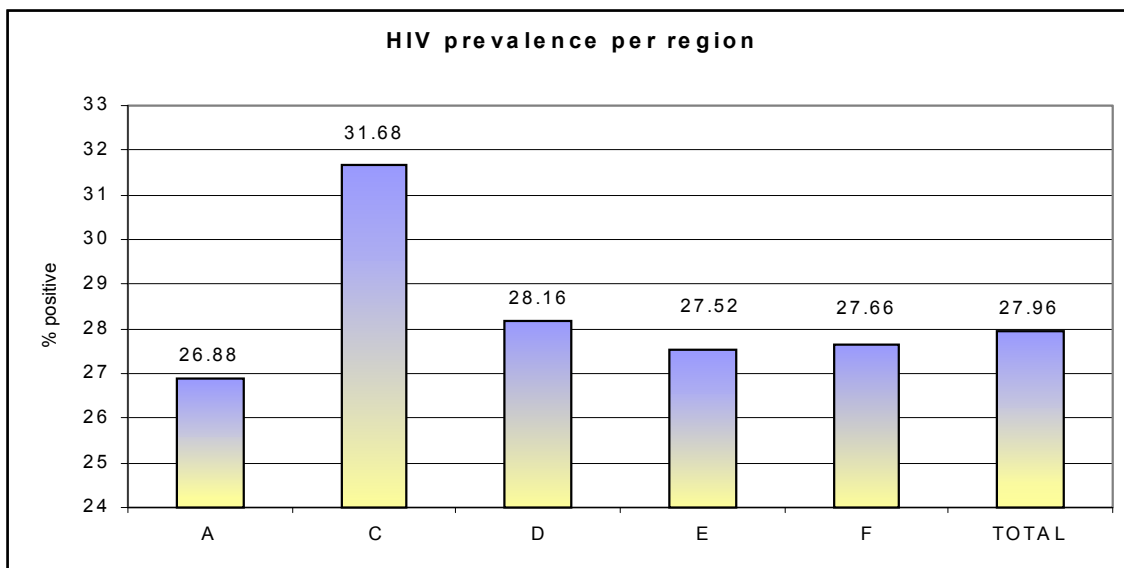
Diagram 1: HIV prevalence rate for the Free State for 1997 – 1999:



Looking at the HIV prevalence rate for the Free State province, it shows an increase each year e.g. in 1998 it has increased by 2.8% and in 1999 by 5.1%. This means that our intervention strategies have no impact on the epidemiological profile of HIV/ AIDS and there is a need for other strategies that could have an effect.

4.2 1999 HIV prevalence for regions in the Free State province

Diagram 2: 1999 HIV prevalence for Free State regions:



Region C is having higher HIV prevalence rate (31.68%) followed by region D (28.16%), region F (27.66%) and region E (27.52%). See the diagram above.

4.3 Comparison of 1998 and 1999 HIV prevalence rate per region in the Free State:

N.B. % is calculated using the number of specimen taken in the sites/ clinics.

Table 1: Comparison of HIV prevalence per region for 1998 and 1999

Region	1998		1999	
	Positive	% Positive	Positive	% Positive
A	100	23.98	111	26.88
C	43	25.75	51	31.68
D	41	21.03	29	28.16
E	67	21.34	90	27.52
F	27	21.26	26	27.66
Total	278	22.79	307	27.96

When comparing 1998 and 1999 HIV prevalence rate region C is always the region with the highest HIV prevalence rate.

4.4 1999 HIV prevalence rate for region A

Table 2: HIV prevalence for clinics in region A

Clinic	# Positive	% Positive	Clinic	# Positive	% Positive
Bainsvlei	1	10.0	Industrial	3	30.00
Batho	19	38.0	J - clinic	10	33.33
B – clinic	1	14.29	L – clinic	3	30.00
C – clinic	2	14.29	M – clinic	3	30.00
Chris de Wet	0	0.00	Mafane	0	0.00
D – clinic	1	7.14	MUCPP	22	31.43
Dinaane	2	20.00	Pelonomi	16	25.00
E – clinic	4	28.57	Thaba Nchu	4	40.00
F – clinic	5	50.00	U & S – clinic	4	30.77
Gaongalewe	4	23.53	W - clinic	4	25.00
H – clinic	3	50.00			

In region A 21 clinics were selected for the HIV/ Antenatal survey. 413 blood tubes were sent to the laboratories and of those tested 111 (26.88%) were positive.

The HIV prevalence rate for region A per clinic is indicated in table 2. The clinics with the highest HIV prevalence rate are F-clinic (50.0%) and H- clinic (50.0%), followed by Thaba Nchu clinic (40.0%), Batho clinic (38.0%) and J-clinic (33.3).

4.5 1999 HIV prevalence rate for region C

Table 3: HIV prevalence for clinics in region C

Clinic	# Positive	% Positive	Clinic	# Positive	% Positive
Bronville	8	22.86	Meloding	4	40.00
Kgotsoong (Bothaville)	5	25.00	Monyakeng	5	20.00
Kgotsoong (Welkom)	7	35.00	Welkom	7	35.00
Kopano	15	50.00			

In region C 7 clinics were involved in the survey. 161 blood tubes were sent to the laboratories and of those 51 (31.68%) were positive.

The clinics in region C with the highest HIV prevalence rate are Kopano (50.0%), Meloding (40.0%), Welkom PHC (35.0%) and Kgotsoong clinic in Welkom (35.0%).

4.6 1999 HIV prevalence for region D

Table 4: HIV prevalence for clinics in region D

Clinic	# Positive	% Positive	Clinic	# Positive	% Positive
Edenville	3	37.50	Relebohile	3	30.00
Phahameng	6	30.00	Vredefort	1	16.67
Rammulotsi	12	27.91	Zamdela	4	25.00

The survey was conducted at 6 clinics in region D. 103 blood tubes were sent to the laboratories and of those 29 (28.16%) were positive.

In region D Edenville clinic (37.5%) had the highest HIV prevalence rate, followed by Phahameng clinic (30.0%) and Relebohile clinic (30.0%).

4.7 HIV prevalence rate for region E

Table 5: HIV prevalence for clinics in region E

Clinic	# Positive	% Positive	Clinic	# Positive	% Positive
Bolata	2	20.00	Paballong	2	13.33
Ma-Haig	9	47.37	Phomolong	3	13.04
Makwane	5	26.32	Phuthaditjhaba	7	35.00
Malesaona	1	12.50	Riverside	8	40.00
Marakong	2	20.00	Seka Mota	3	15.00
Matsieng	8	42.11	Tabang	10	33.33
Monontsa	6	30.00	Thaba Bosiu	1	14.29
Namahali	5	33.33	Tina Moloji	2	15.38
Nthabiseng	2	40.00	Tshiame	2	20.00
Ntshubise Chaoana	5	21.74	Tsirela	7	35.00

In this region 20 clinics were selected for the survey. 327 blood tubes were sent to the laboratories and 90 (27.52%) were positive.

In region E the clinic with the highest HIV prevalence rate is Ma-Haig clinic (47.37%), followed by Matsieng clinic (42.11%), Nthabiseng clinic (40.0%) and Riverside clinic (40.0%).

4.8 1999 HIV prevalence rate in region F

Table 6: HIV prevalence for clinics in region F

Clinic	# Positive	% Positive	Clinic	# Positive	% Positive
Bohlokong	13	32.50	Masebatso	4	30.77
Ladybrand	3	21.43	Mphohadi	6	22.22

In region F only 4 clinics were involved in the survey. 94 blood tubes were tested by the laboratories and of those 26 (27.66%) were positive.

Bohlokong clinic (32.5%) has the highest HIV prevalence rate in region F, followed by Masebatso clinic (30.77%).

4.9 1999 HIV prevalence by age for the Free State province:

Table 7: HIV prevalence by age for the Free State

Age group	Number positive	% positive
< 20 years	30	17.65
20 – 24 years	92	29.87
25 – 29 years	102	35.79
30 – 34 years	52	27.23
35 – 39 years	26	22.41
40 – 44 years	5	18.52
45 and older	0	0.00

4.10 Comparison of 1998 and 1999 HIV prevalence by age group for the Free State

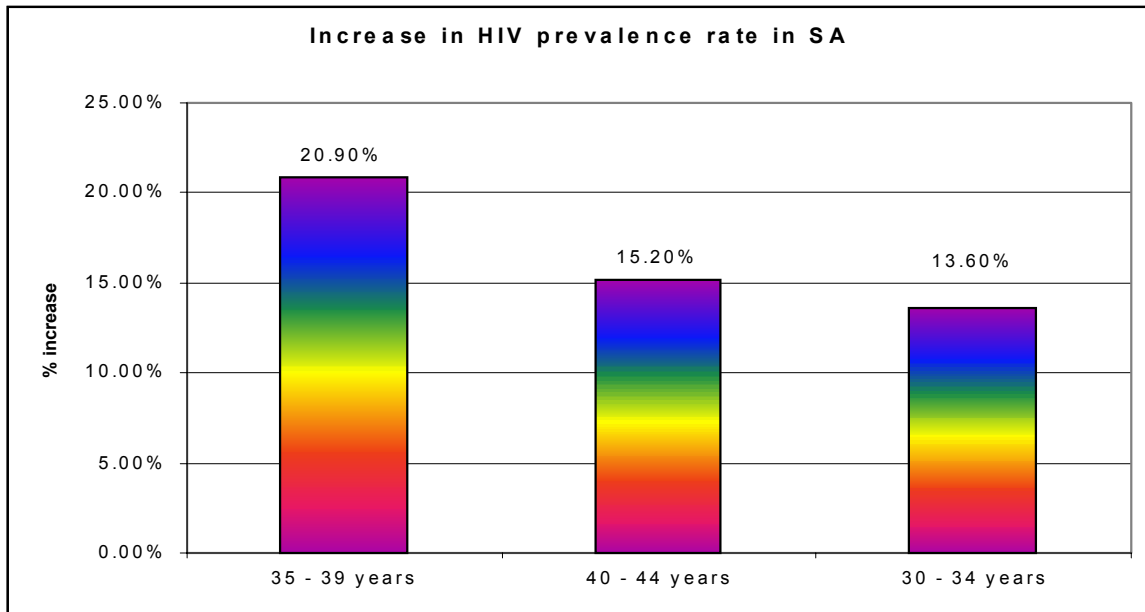
Table 8: HIV prevalence by age group for 1998 and 1999

Age group	1998 % positive	1999 % positive	% increase/decrease
< 20 years	15.82	17.65	1.83%
20 – 24 years	23.94	29.87	5.93%
25 – 29 years	27.52	35.79	8.27%
30 – 34 years	23.52	27.23	3.71%
35 – 39 years	18.26	22.41	4.15%
40 – 44 years	19.23	18.52	- 0.71%
45 and older	0.00	0.00	0%

When comparing 1998 and 1999 HIV prevalence rate by age group the pattern is the same e.g. it affects the same age group and there is an increase in each age group with the exception of 40 – 44 years where there is a decrease of 0.71%.

In South Africa rates of increase were observed in four age groups. Refer to the diagram below.

Diagram 3: Increase in HIV prevalence rate per age group for South Africa



4.11 1999 HIV prevalence by educational level in the Free State province

Table 9: HIV prevalence by educational level for the Free State Province

Educational level	% positive	Educational level	% positive
No education	29.17	Grade 7	19.57
Grade 1	0.00	Grade 8	28.57
Grade 2	0.00	Grade 9	37.34
Grade 3	12.50	Grade 10	30.30
Grade 4	27.27	Grade 11	26.58
Grade 5	13.89	Grade 12	29.10
Grade 6	17.24	Tertiary education	50.00

It is surprising that the literate/ learned people are those that are most affected by HIV, this may be due to the fact that they are the ones that attend antenatal clinics as they are aware of complications of not attending antenatal care services.

5. 1999 HIV PREVALENCE BY PROVINCE:

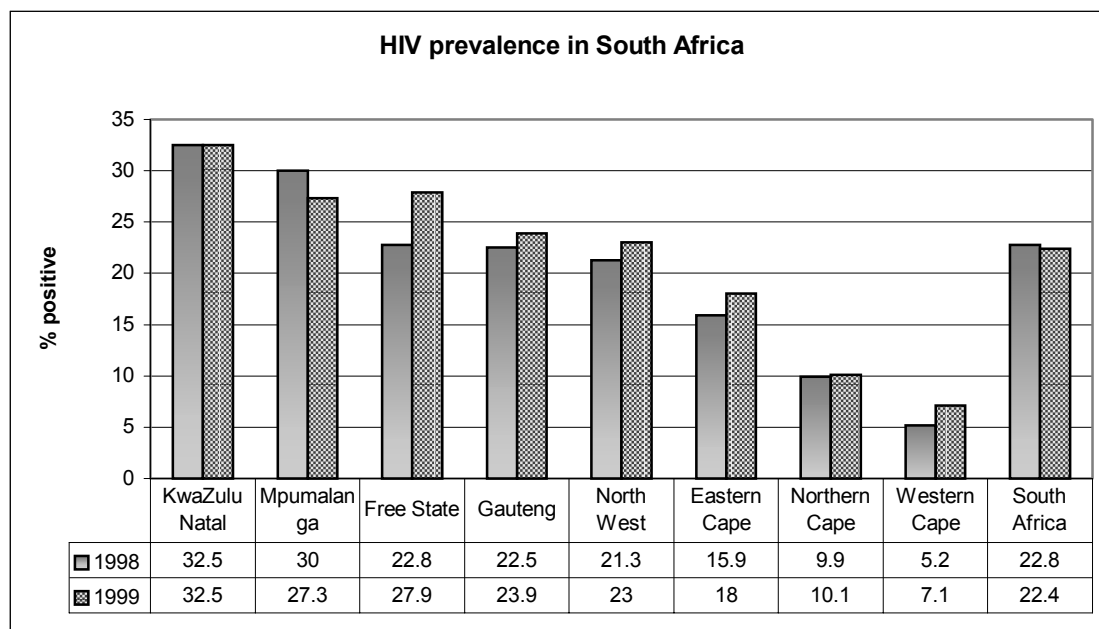
Table 10: HIV prevalence for 1999 by province in South Africa

Province	% positive
KwaZulu Natal	32.5
Free State	27.9
Mpumalanga	27.3
Gauteng	23.9
North West	23.0
Eastern Cape	18.0
Northern Province	11.4
Northern Cape	10.1
Western Cape	7.1

The province with the highest HIV prevalence rate for 1999 is KwaZulu Natal (32.5%), followed by the Free State province (27.9%).

5.1 HIV prevalence by province comparing rates for 1998 and 1999

Diagram 4: HIV prevalence for 1998 and 1999 by province in South Africa

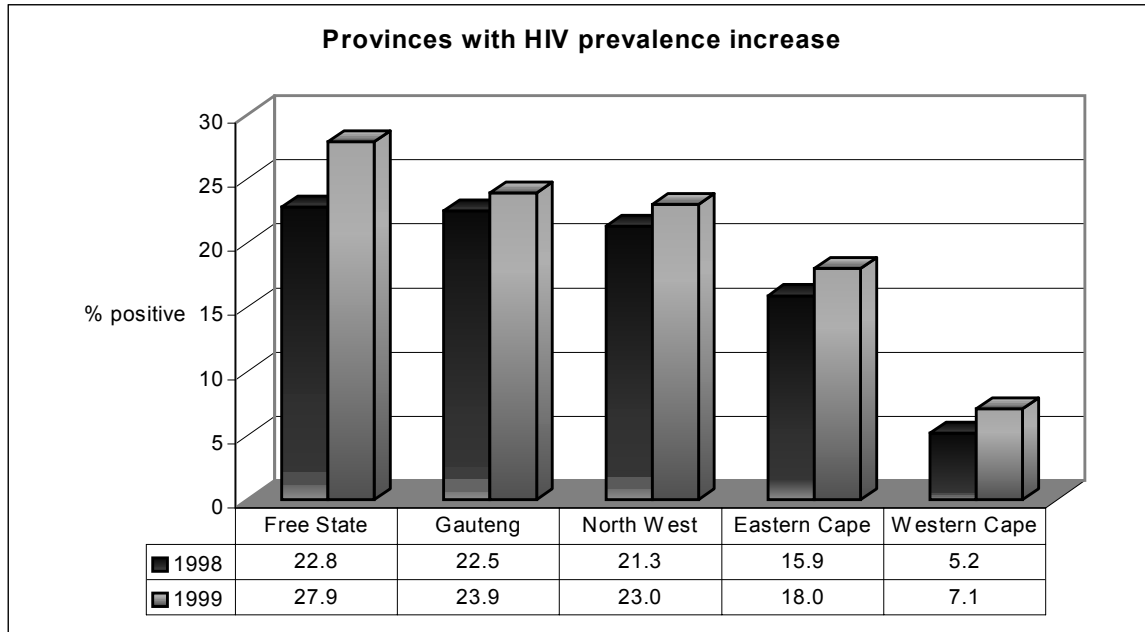


Although 1999 prevalence rate (which lies within the same confidence interval as the 1998 estimates) suggests that HIV prevalence rates have not increased and that we may be seeing a slight change in the epidemiological trends of the HIV in South Africa, a continuous increase in HIV prevalence rate is observed in five of the nine provinces namely Free State (5.1%), Gauteng (1.4%), North West (1.7%), Eastern Cape (2.1%) and

Western Cape (1.9%). Refer to the diagram below for provinces with continuous HIV prevalence increase.

5.2 Provinces with continuous HIV prevalence increase

Diagram 5: Provinces with continuous HIV prevalence increase



6. GENERAL:

In this study it was not possible to obtain reliable data on HIV prevalence in different population groups because women attending public health clinics are predominantly Africans. The findings are not truly providing direct information on HIV infection in men, infants and non pregnant women. There is a possibility for under estimating HIV prevalence in the population, however in order to obtain an estimate on the approximate numbers of men, women and infants who might have been infected with HIV at the end of 1999 projections were made.

The projections of the estimated number of individuals infected with HIV in South Africa are as follows:

- Women (15 – 49 years) = 2.2 million
- Men (15 – 49 years) = 1.9 million
- Babies = 94 608 – 102 000

UNAIDS estimates suggest that approximately one in every 10 South Africans are infected with HIV, these estimates concur with estimates of this study.

7. ACKNOWLEDGEMENTS:

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- Mieta van Niekerk – for handling logistical issues related to laboratories and clinics.
- Annette Furter – for assisting in the logistics of conducting the survey in region A.
- Regional managers – for support throughout the survey.

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