

PRELIMINARY RESULTS BOTSWANA AIDS IMPACT SURVEY IV (BAIS IV), 2013

STATS BRIEF

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PREFACE AND ACKNOWLEDGEMENTS

Statistics Botswana in collaboration with National AIDS Coordination Agency (NACA) and Ministry of Health conducted the fourth Botswana AIDS Impact Survey (BAIS IV) of 2013. BAIS IV was conducted between January and April 2013. This Stats Brief provides preliminary results of BAIS IV, 2013.

The major objectives of the survey were to provide current HIV incidence and prevalence estimates among the population aged six weeks to 64 years and indicative trends in preventive behavior among the population aged 10 to 64 years.

The BAIS IV was the first national survey to use smart phones for data collection. The information gathered was directly entered into smart phones during field enumeration period and sent to storage centre through network systems, which enabled data capture directly to data savers. This procedure saved costs and data processing period resulting in availability of these preliminary results in seven months from the usual one and a half year period. The undertaking of a survey of this magnitude and importance demands a well-coordinated strategic plan, thus different organisations and individuals were involved at different survey processes simultaneously or different times.

I therefore acknowledge contribution of Ministry of Finance and Development Planning, NACA, Ministry of Health, National Health Laboratory, Members of BAIS IV Reference and Technical Working Groups, Development Partners especially CDC Botswana, UNDP & ACHAP, BAIS IV Data Processing Consultants, BAIS IV field personnel and last but not least, Statistics Botswana and NACA BAIS IV Teams of specific survey section specialists.

I hope the Stats Brief will provide useful information for monitoring and evaluation of progress made in HIV/AIDS interventions. The final report will be availed by mid 2014.



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November 2013

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1. INTRODUCTION

The fourth Botswana AIDS Impact Survey (BAIS IV) was a national two stage sample survey design. Data collection started on the 21st January 2013 and was completed on 24th April 2013. Data collection was done using smart phone tablets instead of the conventional paper based method.

The survey estimated Botswana population at 2,045,752 compared to the 2013 adjusted population projection estimates of 2,101,715. This provides a difference of 2.67% (less than 5%), rendering the BAIS IV data a good estimate, credible and representative of Botswana population.

Table 1: Population Estimates 2011-2013

Source	Percent Male	Percent Female	Total
2011 Census	48.8	51.2	2,024,904
2013 Adjusted Projections	48.8	51.2	2,101,715
2013 BAIS (IV) Survey	47.7	52.3	2,045,752

Estimates for response rates showed that 83.9% of persons aged 10 to 64 answered individual questions. The data also showed that 73.4% of population 6 weeks and above participated in HIV testing. Hence the information provided in the BAIS VI survey is reliable given these good response rates.

Among those who provided blood samples for HIV testing, 79.6 % of the tested population wanted to know their results.

Table 2: Un-weighted data of sampled population by target population and response rate

Target Population	Sampled Population	Responded Population	Response Rate (%)
Individuals (10-64years)	9,807	8,231	83.9
DBS (6weeks and above)	13,808	10,140	73.4
Tested and want HIV results	10,140	8,070	79.6

1. BAIS IV OBJECTIVES

The primary objective of the 2013 BAIS IV survey was to update current information on the behavioral patterns of the populations aged 10-64 years and the HIV prevalence and incidence rates among those aged 6 weeks through age 64 at national, district and sub-district level. This information will be used for continuous strategic prevention and national HIV program planning, but also guide future HIV and AIDS research.

Specifically, the survey was intended to:

- To provide current national HIV estimates among the population aged 6 weeks through 64 years.
- To provide indicative trends in sexual and preventive behavior among the population aged 10-64 years.
- To provide a comparison between HIV rate, behavior, knowledge, attitude, poverty and cultural factors that are associated with the epidemic with estimates derived from previous surveys.
- To increase the numbers of those who know their HIV status and assist linking those found to be HIV positive with healthcare system.
- To produce survey results in a timely manner and ensure that the data are disseminated to a wide audience of potential users in Government and Non-Governmental Organizations within and outside Botswana.

3. MAJOR CONCEPTS AND DEFINITIONS

3.1 Testing for HIV:

Dried Blood Spot specimens for ages over 18 months were screened for HIV antibodies in a parallel testing algorithm using commercial ELISA test kits – Vironostika-HIV Uni-Form II plus O (OrganonTeknika, Boxtel, The Netherlands) and Murex (Abbott, Wiesbaden, Germany) as per Botswana National Policy on HIV Testing. Any specimen that was reactive on parallel ELISA testing was considered HIV antibody positive, and was diagnostic for HIV infection, whereas any specimen that was not reactive on parallel ELISA testing was HIV antibody negative. Dry blood specimens less than 18 months was tested for HIV virus/antigen using DNA PCR Roche technology. Any sample that was reactive was repeated and if reactive twice then it was diagnosed as HIV positive. Samples that were non-reactive were diagnosed as HIV negative.

3.2 Prevalence and Incidence

HIV Prevalence measures the relative burden of HIV and AIDS Disease whereas HIV Incidence measures the degree of new HIV infections. HIV Incidence is a better measure than prevalence as it assesses the dynamics of current HIV transmission and therefore allows for evaluation of HIV prevention efforts.

3.2.1 Prevalence

[Period] prevalence measures the combined number of old and new (recent) infections within the population exposed to the risk of HIV infection. In BAIS IV all individuals 6 weeks and over who provided valid and successfully tested blood sample constitute the total population at risk – that is, the denominator. HIV positive outcomes of the prevalence tests carried out as defined above make up the numerator.

The prevalence rate was therefore estimated using the formula; $P = \frac{\sum P_i}{n} \times 100$, where $\sum P_i$ is the total number of persons who tested positive out of the total (n). n is the total number of persons whose blood sample was successfully tested for HIV (population used was 6 weeks and above).

3.2.2 Incidence

Incidence measures the appearance of new infections among the part of the population hitherto not infected. HIV-1-positive specimens as per prevalence testing above were retested with the Aware BED enzyme immunoassay (EIA) HIV-1 incidence Test (Calypte Biomedical Corporation, Portland, Oregon, USA) to detect recent HIV-1 seroconversion. The annualized HIV-1 Incidence Rate (I) was calculated using the agreed-upon consensus formula

$$I = \frac{(365/w)N_{inc}}{N_{neg} + (365/w)N_{inc}/2} \times 100$$

Where: w = mean window period of detection (141 days); N_{inc} = number of subjects found by the BED incidence assay to be recently infected; and N_{neg} = number of HIV seronegative subjects

¹ Valid sample was usable and yielded a test result²This is a consensus formula agreed upon at the US CDC.

4. SUMMARY OF BAIS IV RESULTS

4.1 HIV Prevalence and Incidence rates

The BAIS IV survey estimated a national prevalence rate of 16.9 percent and an unadjusted incidence rate of 2.47 for population aged 6 weeks and above. On the other hand, the national prevalence rate for age group of 18 months to 64 years was estimated at 19.03 percent compared to 17.6 percent realized in the 2008 BAIS III for the same age group. The incidence rate was estimated at 2.9 percent in the 2008 BAIS III which covered age group 18 months to 64 years. This remains almost unchanged for the same age group in the 2013 survey.

Table 3: BAIS IV Prevalence and Incidence Rate

Status	2013- BAIS IV	
	Population 6 weeks and over	Population 18 months to 64 years
HIV Negative	1,067,170	875,644
HIV Positive	216,243	205,815
Estimated HIV infections in the last 12 months	10,329	10,013
Total sample size	1,283,413	1,081,459
Estimated prevalence (%)	16.9	19.0
Estimated incidence (%)	2.47	2.92

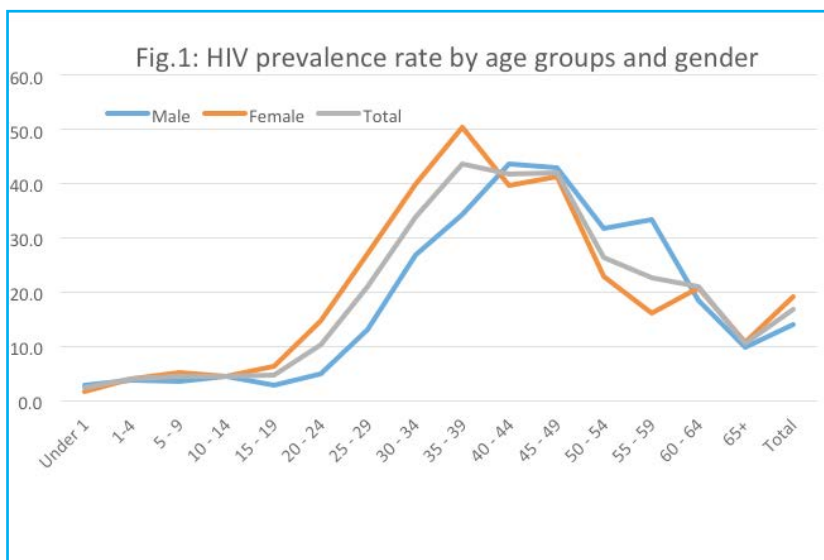
HIV Prevalence was found to be higher amongst females than males with 19.2 percent and 14.1 percent respectively. Comparison with BAIS III, the 2013 survey revealed that rural areas continue to be the least infected at 14.6 percent while towns remain the most infected at 18.2 percent.

4.1.1 Gender

Females have a relatively higher prevalence rate of 19.2 percent compared to 14.1 percent of males, which is a slight decline from the 2008 BAIS III where prevalence rate for males was at 14.2 percent and females at 20.4 percent.

4.1.2 Age

HIV prevalence was recorded at 2.3 percent for the 1-4 age group. The prevalence was highest among the 35-39 age groups at 43.7 percent, thereafter, gradually declining with age. In the 2008 BAIS III this peak was seen in almost the same age groups of 30 to 44.



According to Figure 1, national age pattern of HIV prevalence rate is at its peak from 30-34 age group (33.9 percent) to a maximum of 43.7 percent in the age range 35-39, 41.8 percent in the age range of 40-44 and 42 percent in the age range 45-49 respectively. However, the male and female patterns show differential peaks, while female prevalence reach peak (nearly 50 percent) at ages 35-39, that of males peak 5 years at 40 to 44 years. Male prevalence appears to have a late surge in the late 50s and females in the early 60s; for those above 65 years of age male prevalence is slightly lower (9.8 percent) compared to the previous 2008 BAIS III of 12.6 percent. The prevalence for females (10.9 percent) at 60 years and above has slightly gone up from 8.8 percent in 2008 BAIS III to 10.9 percent in the 2013 survey.

Table 4: HIV prevalence rate by Age groups and Gender

Age	HIV Prevalence Rate					
	BAIS IV			BAIS III		
	Male	Female	Total	Male	Female	Total
Under 1	2.9	1.6	2.3			
1-Apr	3.8	4.1	4.0	2.3	2.1	2.2
5-9	3.5	5.3	4.3	4.6	4.8	4.7
10-14	4.5	4.4	4.5	3.5	3.5	3.5
15-19	2.9	6.4	4.7	2.4	5.0	3.7
20-24	5.0	14.7	10.3	7.4	16.0	12.3
25-29	13.2	27.2	21.1	16.0	33.9	25.9
30-34	26.9	40.1	33.9	28.6	48.9	39.7
35-39	34.4	50.5	43.7	37.3	42.8	40.5
40-44	43.8	39.9	41.8	43.6	38.4	40.6
45-49	43.0	41.4	42.0	27.7	31.2	29.8
50-54	31.8	22.8	26.3	28.8	22.2	24.8
55-59	33.5	16.2	22.8	19.5	25.1	22.8
60-64	18.6	20.8	20.9	16.7	14.4	15.4
65+	9.8	10.9	10.4	12.6	8.7	6.9
Total	14.1	19.2	16.8	14.2	20.4	17.6

4.1.3 Residence

Urban areas were found to have a prevalence of 17.5 percent compared to the 2008 BAIS III of 17.9 percent. Rural areas have a slightly lower prevalence rate of 15.8 percent in the period under review, compared to the 17.1 percent realized in the 2008 BAIS III. In Urban areas Towns have a much higher prevalence rate of 20.2 percent which is a slight decrease from 22.1 percent from BAIS III. Cities have a prevalence of 18.6 percent which is also a slight decrease compared to the BAIS III prevalence of 19.1. In the 2013 survey prevalence in Urban Villages was found to be 16.8 percent compared to 16.6 from the 2008 BAIS III.

Table 2b: Estimated HIV Prevalence Rate by Residence and Gender.

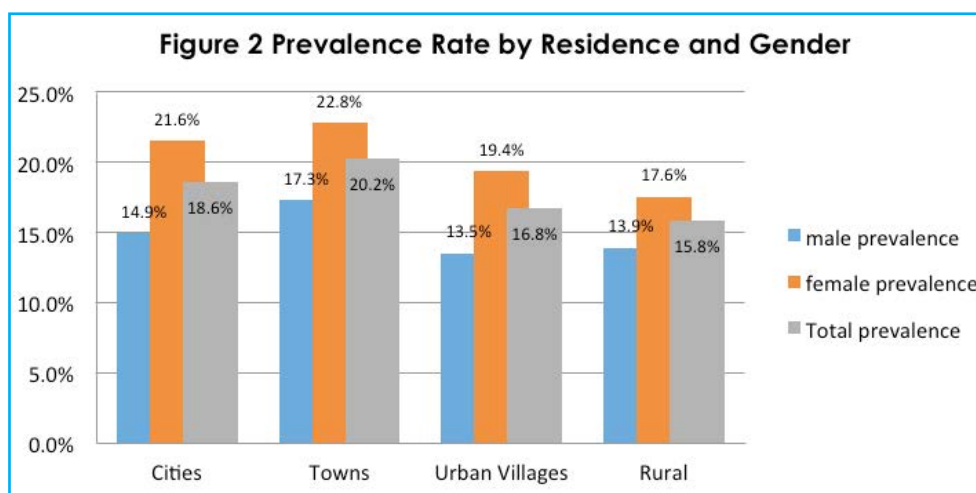
Residence		HIV Prevalence by Gender		
		Male	Female	All
Urban	Cities	14.9	21.6	18.6
	Towns	17.3	22.8	20.2
	Urban Villages	13.5	19.4	16.8
	Total Urban	14.2	20.2	17.5
Rural		13.9	17.6	15.8
Total		14.1	19.2	16.8

4.1.4 District

The 2013 HIV prevalence by district ranges from 9.9 percent in Kgalagadi South to the highest of 25.1 percent in Selibe- Phikwe. Comparison of BAIS IV with BAIS III results for the two districts shows a steep drop in prevalence for Kgalagadi South from 19.1 percent observed in BAIS III to 9.9 percent and a slight drop for Selibe Phikwe from 26.5 percent in BAIS III to the current 25.1 percent.

4.1.5 Prevalence Rate by Residence and Gender

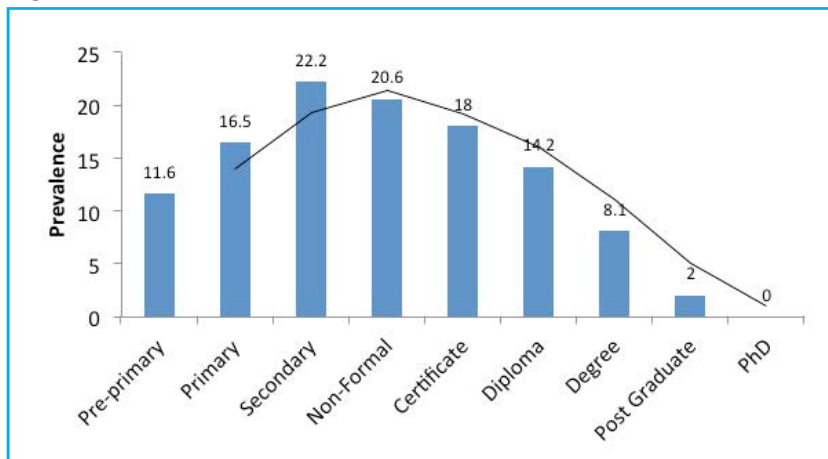
In Figure 2, urban areas refer to a combination of Cities, Towns and Urban villages. The prevalence in Urban areas combined is higher (17.5 percent) than Rural areas (15.8 percent). Rural areas have a slightly lower prevalence rate of 15.8 percent compared to the BAIS III figure of 17.1 percent. In the category of urban areas, Towns have a much higher prevalence rate of 20.2 percent which is a slight decrease from 22.1 percent recorded in the BAIS III. Cities have a prevalence of 18.6 percent which is also a slight decrease compared to the BAIS III prevalence of 19.1. The prevalence in Urban Villages, for the period under review, was found to be 16.8 percent compared to 16.6 from the 2008 BAIS III.



4.1.5 Education level

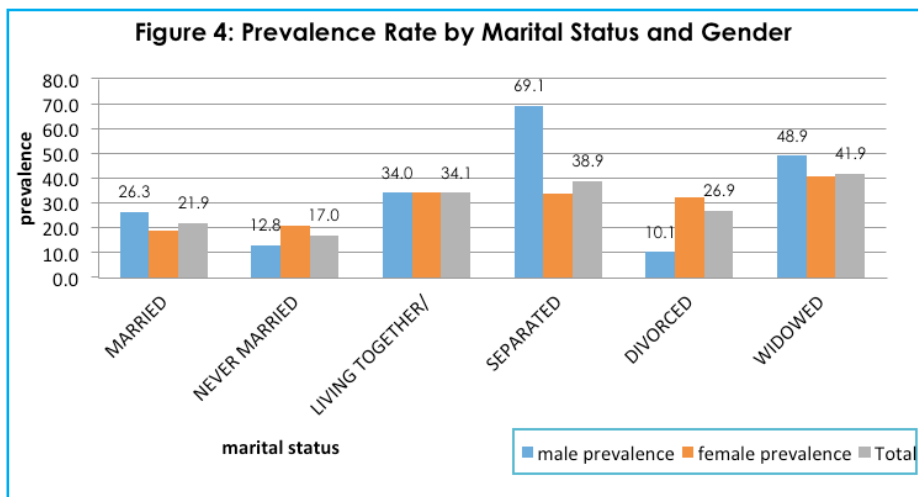
According to Figure 3, the prevalence of HIV rises from those with pre-primary education (11.6 percent) to non-formal education (20.6 percent), and as high as 22.2 percent amongst those with secondary education. The prevalence then declines as people get educated to as low as 0 percent amongst those with PhDs.

Figure 3: Prevalence of HIV/AIDS by Education



4.1.6 Marital Status

HIV prevalence amongst the married was higher among the males with 26.3 percent compared to females' at 18.7 percent. For those who were never married, the prevalence was high amongst the females at 20.6 percent compared to 12.8 percent for their male counterparts. Whilst the prevalence rates were evenly matched for both sexes among those who were cohabiting or living together at 34percent, for those separated, the prevalence was at its highest among the males at 69.1percent compared to females with 33.7percent. On the same, for those who were divorced, the prevalence was high amongst females with 32.2 percent compared to the males with 10.1 percent. The survey also observed that for the widowed, prevalence was higher for females compared to males at 48.9 percent and 40.5 percent respectively.



4.2 Prevention

The survey showed increases in the percentage of people undergoes an HIV test. Between 2008 and 2013 an estimated 70.2 percent of the population aged 10-64 years reported having been tested for HIV at least once compared to 56.0 percent from the 2008 BAIS III. In the 12 months preceding the survey, 97.1 percent of the population aged 15-49 had an HIV test and were informed of the results

4.3 Care and Support

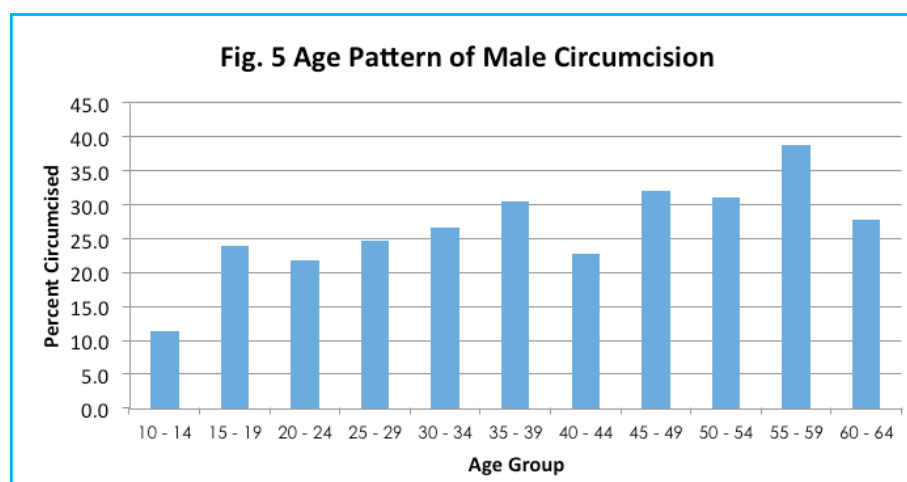
BAIS IV preliminary results show that 14.4 percent of children below the age of 18 years were orphaned compared to 16 percent recorded from the 2008 BAIS III. The survey showed that 13.9 percent of the households in which orphaned children lived received some free basic external support in the 12 months preceding the survey compared to 31 percent from BAIS III. Home Based Care from trained caregiver was being provided to about 50.3 percent of the households with bedridden people in the period under review, compared to 49 percent from the previous BAIS III.

4.4 Knowledge and Behavior

Early sexual debut was reported at 4.6 percent for men and women aged 15-24 who had sexual intercourse before the age of 15 years, compared to 4 percent recorded from the BAIS III. The percentage for both sexes aged 15-49 who had multiple sexual partners in the last 12 months was found to be 15.8 percent. Amongst the same population 81.9 percent reported having used a condom during the last sexual intercourse. Condom use amongst 15-24 age group, was found to be 99.5 percent every time they had sex with non-regular partners in the 12 months preceding the survey.

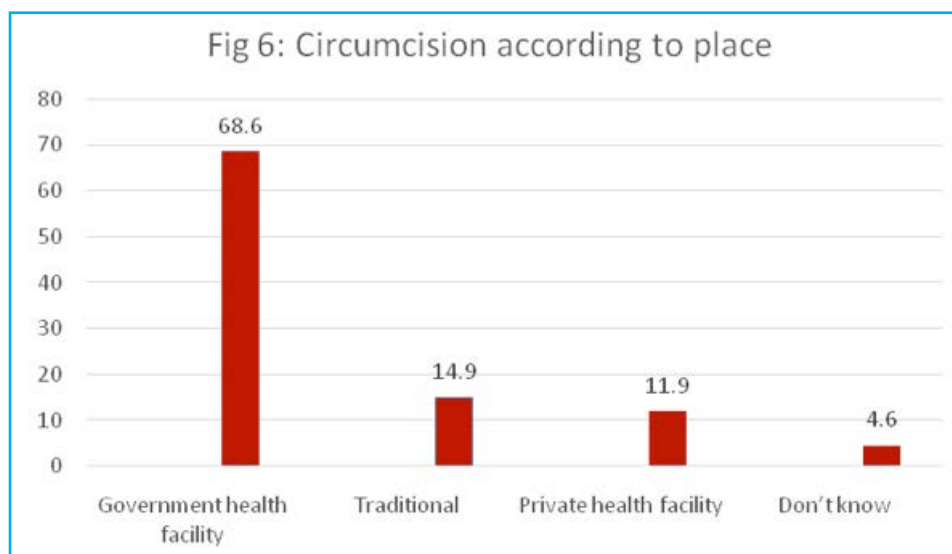
4.50 Male Circumcision

According to Figure 5, male circumcision increases with age. There has been an overall increase in male number and percent who were reportedly circumcised from 11 percent to 24.3 between 2008 and 2013. Amongst those aged 30-34, 35-39 and 40-44 where the infection is concentrated, 26.5, 30.8 and 24.1 percent respectively were circumcised. The rate of males circumcised increases with age reaching its peak at 55-59 age group with 39.2 percent for 55-59 age group.



4.51 MALE CIRCUMCISION BY PLACE OF OPERATION

According to Figure 6 below 68.6 percent of the circumcision was carried out at Government health facilities, followed by 14.9 percent done using traditional methods and 11.9 percent at private health facilities. A small proportion of 4.6 percent did not know where they were circumcised.



4.52 Literacy Rate

The survey included questions on school attendance and the final grade attained. This indicator was then used as a proxy for literacy. In using this proxy, 85.9 percent of the adult population aged 15 years and above was estimated to be literate showing a slight improvement from the 83.2 percent from the 2009/10 Botswana Core Welfare Indicator Survey.

Table 5: Trends in Literacy Rates - 1981 - 2013

YEAR	10 - 70			12 - 70			15 - 65		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1981	32.0	36.0	34.0	..	..	..	..	..	..
1991	..	..	..	..	..	..	66.8	67.7	67.3
1993	..	..	..	..	..	..	66.9	70.3	68.9
2001	65.0	69.8	67.5	..	..	..	69.9	73.6	71.8
2003	75.3	77.9	76.6	79.6	81.8	80.9	80.4	81.8	81.2
2010	85.1	86.5	85.3	87.4	89.2	88.4	82.3	83.8	83.2
2013	82.6	86.4	84.6	83.8	85.9	84.9	84.1	87.5	85.9

4.53 Unemployment rate

The 2013 unemployment rate among population aged 18 years and above was estimated at 19.8 percent. The unemployment rate for persons aged 15 years and above was estimated at 20 percent. The unemployment was largely concentrated among the youths of age group of 18 to 34. Although this is higher than the rate of 17.9 percent in the Botswana Core Welfare Indicator Survey (BCWIS) unemployment tends to be higher from January to May in which the BAIS IV survey was conducted.

Table 6: Unemployment rate by survey

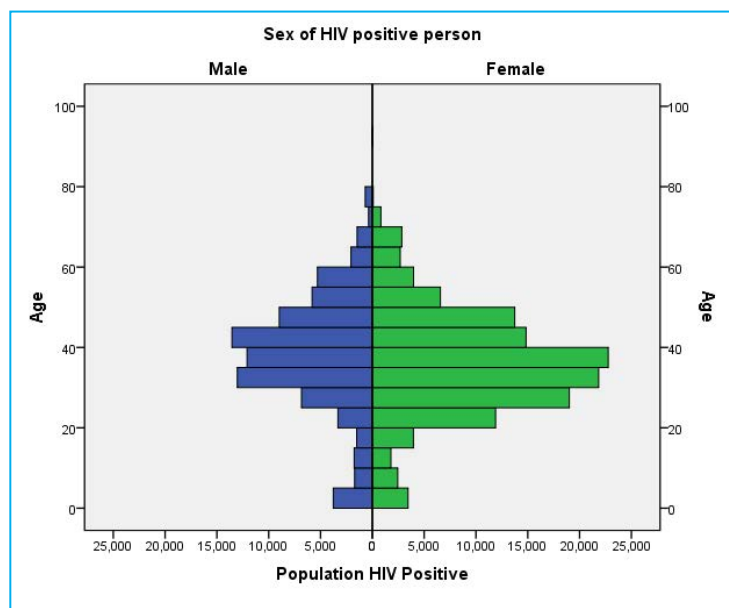
Survey	Unemployment among 18 years and above (%)
BCWIS 2009/10	17.6
BAIS IV (2013)	19.8

5. BAIS IV RESULTS STATISTICAL TABLES

Table 3: Population by 5 year age groups, sex and sex ratio

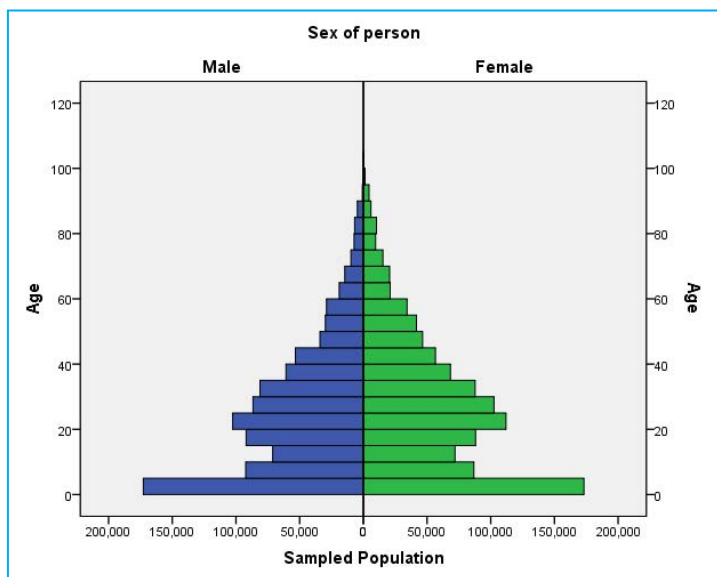
Age	Sex			Sex ratio
	Male	Female	Total	
Under 1	78,986	71,442	150,428	110.6
1 – 4	93,782	101,673	19,742	92.2
5 – 9	92,393	86,738	179,498	106.5
Oct-14	71,118	71,907	143,223	98.9
15 – 19	91,964	88,123	180,590	104.4
20 – 24	102,592	112,011	214,781	91.6
25 – 29	86,628	102,607	189,885	84.4
30 – 34	81,124	87,737	168,861	92.5
35 – 39	60,765	68,383	129,932	88.9
40 – 44	53,378	56,543	110,060	94.4
45 – 49	34,118	46,563	80,766	73.3
50 – 54	29,781	41,645	71,426	71.5
55 – 59	28,887	34,335	63,603	84.1
60 – 64	18,945	21,089	40,383	89.8
65+	44,300	67,769	112,199	65.4
Total	973,289	1,063,884	2,045,752	91.5

Fig 7a: BAIS IV Pyramid of the HIV prevalence at each age group.



The above pyramid shows the population that tested positive. The bars represent the proportions of people in each age group and the number tested positive is more among the female population in the ages 35-39. The pyramid shows that there were more females who tested positive than males across all age groups. Majority of those who tested positive were within the age group 25 to 45 years.

Figure 7b above: Age and Sex structure of the population sampled



The pyramid above shows the sampled population. It shows a broad base at ages 0-4 with almost an equal number of males and female births.

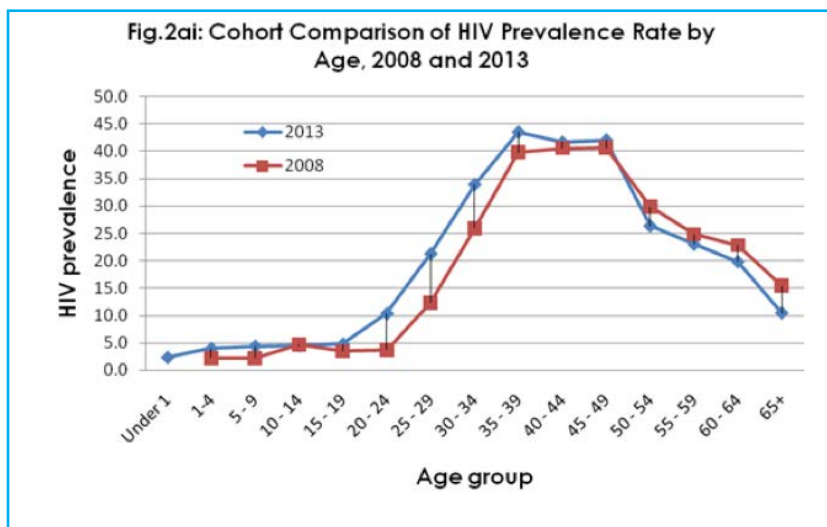
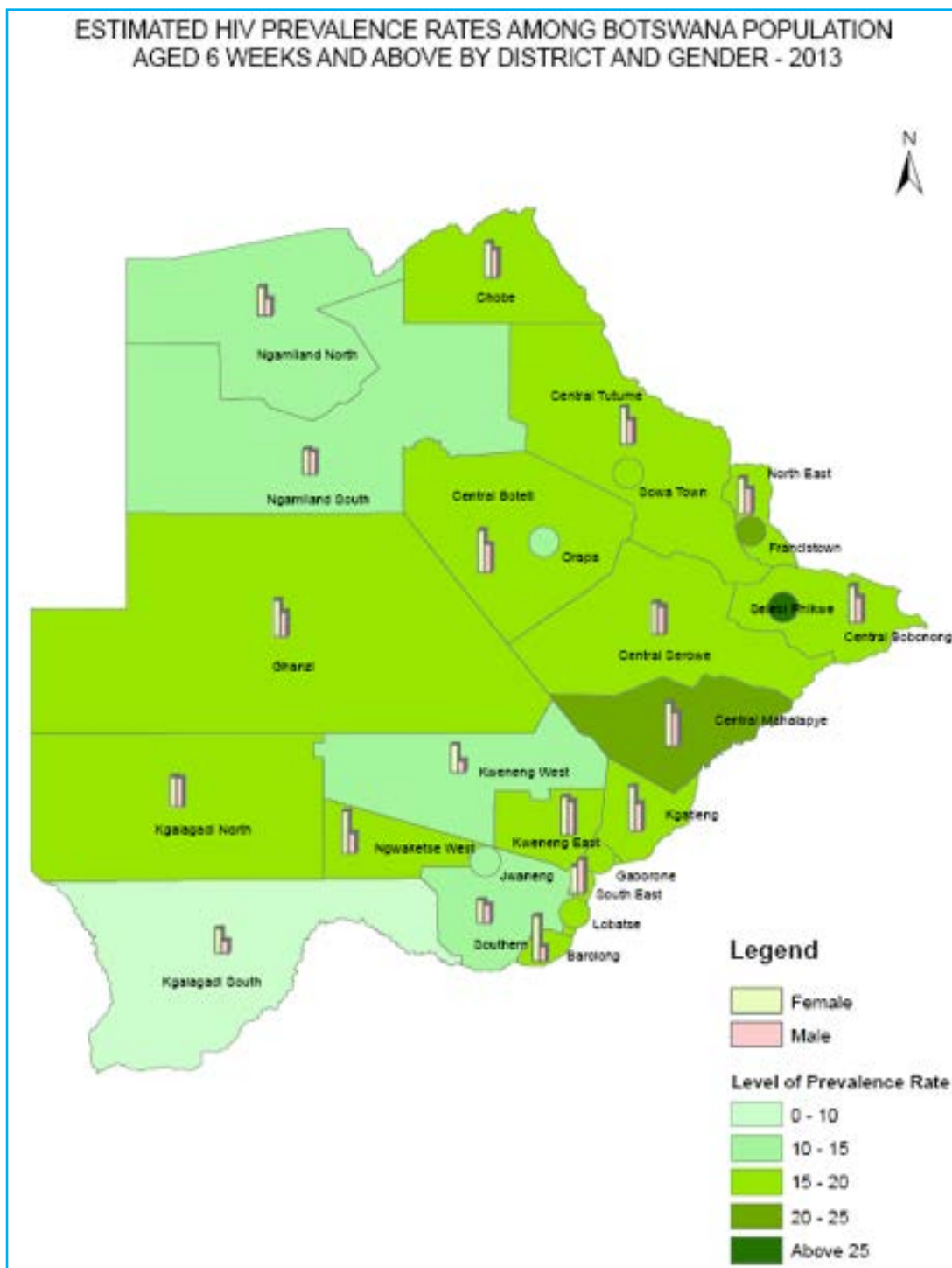


Figure 2ai shows that in 2013 (BAIS IV), HIV prevalence rate was lowest in the under 4 years at 3.3 percent whereas in the same age group in BAIS III (2008) it was 2.2 percent. The prevalence rate was highest in the 35-39 age group at 43.7 percent in 2013, and 40.5% in the same age group in 2008 (BAIS III), indicating a slight increase in the prevalence rate. Further comparison, shows a gradual decline in the prevalence rate from the age of 40 years to 65+ years.

The Map in Fig. 9 shows the prevalence patterns of HIV at the district level. Districts with high prevalence rates are Selebi-Phikwe (25.1 percent), Francistown (23.1percent), Central-Mahalapye (20.2 percent) and Kgatleng (19 percent) while Kgalagadi South (9.9%), Kweneng West (10.6 percent), Southern (11.2 percent) and Jwaneng (12.4 percent) have the least prevalence rates.

Fig. 9: Map – District Pattern of HIV Prevalence:



Source: Botswana AIDS Impact Survey IV. November 2013

Table 4: Estimated HIV prevalence rate by targeted age and gender

Targeted Age	HIV Prevalence Rate by Gender		
	Male	Female	Total
14-18	2.9	5.3	4.1
19-24	4.6	13.4	9.5
14-24	3.9	10.6	7.5
15-24	4.0	11.1	7.9
25-49	29.1	38.5	34.4
15-49	19.3	28.2	24.3
20-30	9.6	21.7	16.4
31-49	36.5	43.8	40.6
50-64	29.2	20	23.7
Total	23.7	30.3	27.5
18 months or over	15.6	21.0	18.6
Under 18 Months	3.5	2.7	3.1
Total	14.2	19.4	16.8

Table 5: Estimated HIV Prevalence Rate by District and Gender

District	HIV Prevalence Rate by Gender		
	Male	Female	Total
Gaborone	12.4	19.2	16.2
Francistown	19.3	26.3	23.1
Lobatse	12.5	19.8	16.6
Selebi-Phikwe	23.0	27.0	25.1
Orapa	9.1	19.2	14.7
Jwaneng	8.3	16.1	12.4
Sowa	12.6	25.0	18.7
Southern	9.9	12.3	11.2
Barolong	7.8	23.7	17.7
Ngwaketse West	10.4	21.9	17.0
Southeast	17.7	14.2	15.8
Kweneng East	17.8	20.0	19
Kweneng West	6.1	14.6	10.6
Kgatleng	14.4	23.2	19
Central-Serowe	14.3	16.3	15.3
Central-Mahalapye	17.4	22.6	20.2
Central-Bobonong	13.2	19.2	16.7
Central-Boteti	14.6	21.8	18.2
Central-Tutume	12.8	19.3	16.5
Northeast	13.2	18.8	16.4
Ngamiland South	12.0	15.7	13.9
Ngamiland North	9.0	15.0	12.6
Chobe	14.4	18.1	16.1
Ghanzi	12.8	18.9	15.7
Kgalagadi South	6.6	13.0	9.9
Kgalagadi North	15.1	15.7	15.4
Total	14.1	19.2	16.8

Table 6: Estimated HIV prevalence rate by district and targeted age group

District	15-24	25-49	15-49	14-18	19-24	20-30	31-49	50-64
Gaborone	4.4	29.8	20.3	0	6.2	10.7	39	12.2
Francistown	10.1	42.2	29.9	6.7	12.4	20.2	54.2	33.4
Lobatse	8.2	31.9	22.3	2.7	11.3	11.9	42.6	13.8
Selebi-Phikwe	9.2	42.6	30.8	4.3	12.1	20.2	51.3	38
Orapa	8.0	23.0	19.1	2.8	10.7	18.1	24.3	16.2
Jwaneng	9.6	18.5	15.9	10.7	8.4	12.7	21	11.6
Sowa	7.1	33.5	25.0	2.7	9.3	15.7	39.7	23.6
Southern	8.0	28.2	18.2	6	8.9	6.8	38.6	10
Barolong	1.8	44.0	27.3	3.3	0	26.9	43.4	27.3
Ngwaketse West	9.2	32.6	25.6	5.1	11.4	17.1	37.5	33.1
Southeast	5.4	32.9	23.3	0	6.5	10.6	39.1	3.9
Kweneng East	10.2	37.3	26.8	2.7	12.8	18.1	42.1	24.6
Kweneng West	6.8	27.9	20.0	3.8	7.7	14.6	31.1	12
Kgatleng	9.1	34.0	24.6	6.4	10.3	20.3	40.1	23.1
Central-Serowe	3.7	32.8	20.7	7.6	1.7	3.7	45.8	35.5
Central-Mahalapye	5.4	47.7	33.4	0	8.4	26.1	51.2	39.8
Central-Bobonong	9.6	39.4	29.2	4.8	13	21.1	43.9	19.6
Central-Boteti	13.0	32.3	25.3	7.9	15.4	21.2	39.3	40.4
Central-Tutume	10.4	44.4	28.7	2.6	15.1	24.6	48	18
Northeast	11.3	44.9	30.8	6.2	14.9	27.7	48.4	22.5
Ngamiland South	7.8	22.7	17.3	7	7.2	15.7	23.2	33.2
Ngamiland North	12.3	26.1	20.3	0	17.2	23.4	25.1	16.8
Chobe	14.5	25.1	22.3	12.7	14.7	16	29.7	19.2
Ghanzi	8.5	25.1	19.6	8.0	7.6	15.8	25.3	27.7
Kgalagadi South	4.4	17.1	13.6	7.0	2.1	7.6	20.7	13
Kgalagadi North	3.3	36.4	27.3	0.0	4.6	8.5	44.6	5.6
Total	7.9	34.4	24.3	4.1	9.5	16.3	40.6	23.9

Table 7: Estimated HIV prevalence by district, youth age group and gender

District	15 - 19			20 - 24			25 - 29			30 - 34		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Gaborone	0.0	0.0	0.0	0.0	11.8	7.2	4.2	17.0	10.9	25.0	55.5	42.2
Francistown	0.0	10.2	6.5	2.9	23.3	13.4	11.9	26.2	20.0	36.6	56.0	46.8
Lobatse	0.0	3.4	2.3	9.5	17.3	12.8	0.0	20.7	11.4	0.0	44.8	33.4
Selebi-Phikwe	0.0	7.1	3.7	7.4	20.6	15.5	23.4	20.2	21.9	43.9	42.4	43.1
Orapa	5.3	0.0	2.1	4.5	18.1	14.2	3.1	29.7	21.5	16.6	36.5	26.8
Jwaneng	6.4	14.2	9.9	0.0	18.7	9.6	13.7	20.4	16.7	7.0	16.8	12.4
Sowa	0.0	4.7	2.7	0.0	22.6	10.8	5.2	28.9	16.6	14.2	44.8	27.8
Southern	0.0	8.6	5.6	10.3	11.8	11.0	0.0	0.0	0.0	38.3	24.3	30.6
Barolong	6.3	0.0	2.7	0.0	0.0	0.0	15.3	52.8	40.6	13.6	42.7	34.3
Ngwaketse West	8.1	12.2	9.6	11.2	7.6	8.9	0.0	22.3	15.9	21.3	61.8	43.1
Southeast	0.0	0.0	0.0	11.6	5.5	7.1	17.4	20.5	18.8	47.3	40.3	42.9
Kweneng East	5.7	7.5	6.7	8.0	16.1	12.0	14.9	34.5	28.3	35	20.5	26.8
Kweneng West	0.0	20.6	3.7	5.3	12.9	9.1	24.3	24.3	24.3	23.9	0.0	14.9
Kgatleng	0.0	9.4	4.7	0.0	26.4	13.7	7.7	40.7	25.3	23.2	45.6	33.8
Central-Serowe	5.0	8.8	7.2	0.0	0.0	0.0	0.0	10.2	5.7	26.3	41.8	33.7
Central-Mahalapye	7.4	0.0	2.5	4.6	11.4	7.6	39.5	50.7	44.5	20.7	74.3	43.6
Central-Bobonong	8.3	5.9	7.2	0.0	15.7	12.3	24.0	19.4	21.3	21.5	52.7	39.7
Central-Boteti	7.7	5.7	6.7	7.0	30.8	19.8	17.8	19.1	18.5	22.9	43.8	34.1
Central-Tutume	5.1	0.0	2.6	8.7	23.7	16.9	25.8	43.5	38.5	24.4	41.8	32.6
Northeast	1.9	12.2	6.8	5.5	21.7	17.5	20.1	39.1	33.8	36.7	41.4	40.4
Ngamiland South	0.0	11.4	6.4	0.0	15.3	8.8	17.9	28.7	23.8	20.9	6.7	14.4
Ngamiland North	0.0	3.4	2.4	12.0	23.4	19.3	14.7	36.2	29.6	18.6	42.4	31.4
Chobe	0.0	23.6	15.7	14.6	13.8	14.2	10.7	20.8	16.2	28.9	20.0	25.3
Ghanzi	0.0	19.7	10.8	9.4	4.7	7.0	13.4	34.4	22.5	14.3	65.9	32.9
Kgalag N	0.0	12.9	6.1	0.0	5.3	2.9	0.0	12.9	7.7	15.4	19.1	17.5
Kgalag N	0.0	14.0	6.2	0.0	0.0	0.0	0.0	10.8	5.7	13.4	39.8	27.5
Total	2.9	6.4	4.8	5.0	14.7	10.3	13.2	27.2	21.2	26.9	40.1	33.9

Table 8: Estimated HIV Prevalence Rate among 10-64 year-olds by

Marital Status and Gender			
Marital Status	HIV Prevalence Rate by Gender		
	Male	Female	All
Never married	12.8	20.6	17.0
Married	26.3	18.7	21.9
Living together	34.0	34.1	34.1
Separated	69.1	33.7	38.9
Divorced	10.1	32.2	26.9
Widowed	48.9	40.5	41.9

TABLE 9: SELECTED SELF REPORTED DIAGNOSIS OF COMMUNICABLE AND NON-COMMUNICABLE DISEASE AMONG MALES AND FEMALES AGED 10-64

DIAGNOSIS	Percent
Tuberculosis (In the last 12 months)	2.2
Diabetes	1.4
High blood pressure	5.1
Asthma	2.6
Cervical Cancer (In the last 2 years)	6.5

Table 10: Selected National and International Indicators for BAIS 2008 and 2013

Indicator	BAIS 2008	BAIS 2013	Reporting purpose
1.percentage of women and men aged 10-64 who have ever received an HIV test	56.6%	70.2%	NATIONAL
2.percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results	41.2%	97.1%	UNGASS
3.percentage of general population who received an HIV test in the past 12 months and were informed of the results			UNIVERSAL
10 – 14		85.2	
15 – 19		94.1	
15 – 24		96.7	
15 – 49		97.1	
20 – 24		97.5	
25 – 49		97.3	
Total 10 – 64		96.4	
4 (a) Percentage of most at risk population (Men Having sex with Men) who received an HIV test in the past 12 months and were informed of the results			UNGASS
10 – 14	-	-	
15 – 19	5.2	93.2	
15 – 24	50.1	96.3	
15 – 49	45.5	97.6	
20 – 24	54.3	96.3	
25 – 49	42.9	98.1	
Total 10 – 64	45.2	97.6	
4 (b) percentage of most at risk population (Persons engaged in commercial sex (sex workers & their clients)) who received an HIV test in the past 12 months and were informed of the results			UNGASS
10 – 14	1.2	-	
15 – 19	8.5	-	
15 – 24	25.4	90.8	
15 – 49	40.7	90.1	
20 – 24	42.8	90.8	
25 – 49	48.3	89.8	
Total 10 – 64	43	90.5	
5 (a) percentage of most at risk population (men who have sex with men) reached by HIV prevention programmes (PMTCT, VCT/RHT and IPT)			
Oct-14	-	-	
15-19	24	82.9	
15-24	39.9	91.4	
15-49	29.8	92.1	
20-24	46.7	93.4	
25-49	26.5	92.3	
Total 10-64	28.1	91.6	

Table 10: Selected National and International Indicators for BAIS 2008 and 2013 cont...

5 (b) Percentage of most at risk (Persons engaged in commercial sex (sex workers & their clients)) population reached by HIV prevention programmes (PMTCT, VCT/RHT and IPT)			UNGASS
Oct-14	-	-	
15-19	11.8	-	
15-24	23	100	
15-49	26.3	97.6	
20-24	27	100	
25-49	27.7	96.8	
Total 10-64	25.4	91.5	
6. Proportion of young people aged 10-24 who cite having discussed HIV and AIDS with a family member over the past 4 weeks[1](Family = Spouse or Other relatives or Family member/s)			
	7	No Question	UNGASS
Indicator	BAIS2008	BAIS 2013	Reporting purpose

Table 11: Care and Support:

7. Percentage of children aged less than 18 years who are orphans (single, double orphans)	16.2	14.4	SADC
8. Percentage of orphaned and vulnerable children aged 0-17 whose households received free basic external support in caring for the child in the last 12 months[1]	31.2	13.9	UNGASS UNIVERSAL Access
9. Percentage of bedridden people that are receiving Home Based Care from trained caregivers (Hospital/Clinic and Social Workers)[2].	46.5	50.3	National

INDICATOR	BAIS 2008	BAIS 2013	REPORTING PURPOSE
Table 12: Knowledge and Behavior:			
10. Percentage of young women and men aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention	42.1	47.9	National, UNGASS, Universal Access, SADC
11 (a) Percentage of most at risk population (Men having Sex with Men) who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention	43.1	34.8	GARPP
(b) Percentage of most at risk population (commercial sex workers and their clients) who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention	32.7		
13. Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15	3.5	4.6	National, UNGASS, Universal Access
14. Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months	11.2	15.8	National, UNGASS, SADC
15. Percentage of people 15-24 years of age who have had sex with a non-marital, non-cohabiting sexual partner in the last 12 months	38.6	TBD	Universal Access
16. Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months reporting the use of a condom during last sexual intercourse	81.1	81.9	National and UNGASS
17. Percentage of people 15-24 years of age reporting the use of condoms every-time they had sex with non-regular partners in the last 12 months	78.4	99.5	Universal Access
18. Percentage of men and women aged 15 – 49 years who used a condom the last time they had sex with a casual partner within the last 12 months.	6.0	99.4	SADC
19. Percentage of persons engaged in commercial sex (clients & providers) reporting the use of a condom with their most recent client	88.7	86.2	UNGASS
20.(a) Percentage of population expressing accepting attitudes (At least one) towards People Living with HIV and AIDS	93.7	75.7	National
(b) Percentage of population expressing accepting attitudes (All accepting attitudes) towards People Living with HIV and AIDS	64.8	23.8	SADC
21. Percentage of men having sex with men reporting the use of a condom the last time they had sex			
Oct-14	-	-	
15-19	73.3	76.8	UNGASS
15-24	53.4	74.8	
15-49	61.4	69.8	
20-24	51.1	74.1	
25-49	65.7	68	
Total 10-64	61.1	67.2	
22 a) Percentage of most at risk population (men who have sex with men) who are HIV infected	22.2	29.0	
b) Percentage of most at risk populations (commercial sex workers and their clients) who are HIV infected	11.6	29.7	UNGASS

⁵This modifies the Universal Access indicator in the sense that it takes into account people who always used condoms instead of those who ever used.

INDICATOR	BAIS 2013	REPORTING PURPOSE
Table 13: Circumcision:		
23.a) Percentage of males aged 10-64 who are circumcised by age group		NATIONAL
Oct-14	11.9	
15-19	23.0	
20-24	22.5	
25-29	24.3	
30-34	26.5	
35-39	30.8	
40-44	24.1	
45-49	30.9	
50-54	31.1	
55-59	39.2	
60-64	26.3	
Total	24.3	
b) Percentage of males aged 10-64 who are circumcised by district		
Gaborone	25.9	
Francistown	30.3	
Lobatse	34.5	
Selebi-Phikwe	28.0	
Orapa	33.9	
Jwaneng	30.8	
Sowa	26.7	
Southern	25.4	
Barolong	22.0	
Ngwaketse West	18.9	
Southeast	23.5	
Kweneng East	22.9	
Kweneng West	22.8	
Kgatleng	38.4	
Central-Serowe	22.1	
Central-Mahalapye	25.0	
Central-Bobonong	14.7	
Central-Boteti	22.5	
Central Tutume	20.3	
Northeast	25.8	
Ngamiland South	25.8	
Ngamiland North	10.9	
Chobe	26.4	
Ghanzi	22.1	
Kgalagadi South	10.0	
Kgalagadi North	19.7	
Total	24.5	

Table 14: Comparison of Some BAIS II, 2004 and BAIS III, 2008 Results:

HIV Prevalence	2004	2008	2013
Age			
1.5 - 4	6.3	2.2	3.3
5 - 9	6.0	4.7	4.3
10 - 14	3.9	3.5	4.5
15 - 19	6.5	3.7	4.7
20 - 24	19.0	12.3	10.3
25 - 29	33.0	25.9	21.1
30 - 34	40.2	39.7	33.9
35 - 39	35.9	40.5	43.7
40 - 44	30.3	40.6	41.8
45 - 49	29.4	29.8	42.0
50 - 54	20.9	24.8	26.3
55 - 59	14.0	22.8	22.8
60 - 64	12.0	15.4	20.9
65+	6.8	10.4	10.4
Total	17.1	17.6	16.8
Residence	2004	2008	2013
Cities	20.2	19.1	18.6
Towns	21.3	22.1	20.2
Urban Villages	17.4	16.6	16.8
Total Urban	19.6	17.9	17.5
Rural	15.6	17.1	15.8
Total	17.1	17.6	16.8
District			
Gaborone	18.3	17.1	16.2
Francistown	24.6	23.1	23.1
Lobatse	17.8	16.3	16.6
Selebi-Phikwe	23.3	26.5	25.1
Orapa	18.2	16.7	14.7
Jwaneng	19.0	15.7	12.4
Sowa	18.8	25.4	18.7
Southern	12.4	13.3	11.2
Barolong	14.2	13.9	17.7
Ngwaketse West	16.0	16.1	17.0
Southeast	14.2	12.6	15.8
Kweneng East	15.2	16.7	19.0
Kweneng West	10.8	10.3	10.6
Kgatleng	14.7	15.8	19.0
Central-Serowe	18.2	20.0	15.3
Central-Mahalapye	17.9	17.1	20.2
Central-Bobonong	18.2	18.9	16.7
Central-Boteti	16.0	14.6	18.2
Central-Tutume	18.9	20.0	16.5
Northeast	18.1	21.8	16.4
Ngamiland South	16.6	19.8	13.9
Ngamiland North	13.3	16.5	12.6
Chobe	29.4	23.0	16.1
Ghanzi	15.6	13.5	15.7
Kgalagadi South	11.8	19.1	9.9
Kgalagadi North	15.2	11.8	15.4
Total	17.1	17.6	16.8

Table 15: COMPARABLE INDICATORS FOR REPORTING PURPOSE

Indicator	2001	2004	2008	Reporting Purpose
Table 15.1: Prevention				
1. Percentage of women and men aged 10-64 who have ever received an HIV test	15.2	27.9	56.4	National
2. Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results	9.4	18.3	41.2	UNGASS
From Table 15.2: Care and Support				
3. Percentage of children aged less than 18 years who are orphans (single, double orphans)	12.7	16.7	16.2	SADC
4. Percentage of orphaned and vulnerable children aged 0-17 whose households received free basic external support in caring for the child in the last 12 months[1]	3.3	34.3	31.2	UNGASS Universal Access
From Table 15.3: Knowledge and Behavior				
5a. Percentage of young women and men aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention	36.3	28.1	43.0	National, UNGASS Universal Access SADC
5b. Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months	10.6	5.4	11.2	National, UNGASS, SADC