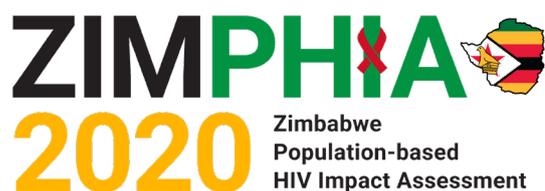




ZIMBABWE POPULATION-BASED HIV IMPACT ASSESSMENT

ZIMPHIA 2020



The Zimbabwe Population-based HIV Impact Assessment (ZIMPHIA 2020) was a household-based national survey among adults (defined as individuals aged 15 years and older) conducted between November 2019 and March 2020 to measure the impact of the national HIV response. ZIMPHIA 2020 offered HIV counseling and testing with return of results to the participants and collected information about uptake of HIV care and treatment services.

This was the second survey in Zimbabwe to estimate national HIV incidence and national and subnational viral load suppression (VLS), defined as HIV RNA <1,000 copies per milliliter (mL). The first ZIMPHIA was conducted between October 2015 and August 2016.

The results of these two surveys provide information on national and provincial progress toward HIV epidemic control.

ZIMPHIA 2020 was led by the Government of Zimbabwe through the Ministry of Health and Child Care (MoHCC). The survey was conducted with funding from the United States (US) President's Emergency Plan for AIDS Relief (PEPFAR) and through technical assistance and partnership with the US Centers for Disease Control and Prevention (CDC). ZIMPHIA 2020 was implemented by ICAP at Columbia University in collaboration with Government of Zimbabwe institutions, including the National Microbiology Reference Laboratory, the National Statistical Agency (ZIMSTAT), and the National AIDS Council, as well as district, provincial, and referral hospitals, and local government authorities.

KEY FINDINGS

| HIV Indicator | Women | 95% CI | Men | 95% CI | Total | 95% CI |
|-----------------------------------|-------|-----------|------|-----------|-------|-----------|
| Annual incidence (%) | | | | | | |
| 15-49 years | 0.67 | 0.34-0.99 | 0.23 | 0.01-0.44 | 0.45 | 0.24-0.65 |
| 15 years and older | 0.54 | 0.28-0.81 | 0.20 | 0.02-0.37 | 0.38 | 0.20-0.55 |
| Prevalence (%) | | | | | | |
| 15-49 years | 14.8 | 13.9-15.7 | 8.6 | 7.8-9.3 | 11.8 | 11.1-12.5 |
| 15 years and older | 15.3 | 14.4-16.1 | 10.2 | 9.5-11.0 | 12.9 | 12.3-13.5 |
| Viral load suppression (%) | | | | | | |
| 15-49 years | 76.8 | 74.2-79.3 | 68.1 | 63.6-72.7 | 73.8 | 71.4-76.2 |
| 15 years and older | 79.8 | 77.7-81.9 | 73.0 | 69.5-76.4 | 77.3 | 75.3-79.2 |

Viral load suppression is defined as HIV RNA <1,000 copies per milliliter among all HIV-positive adults.

Annual incidence of HIV among adults (ages 15 years and older) in Zimbabwe was 0.38%, which corresponds to approximately 31,000 new cases of HIV per year among adults. HIV incidence was 0.54% among women and 0.20% among men.

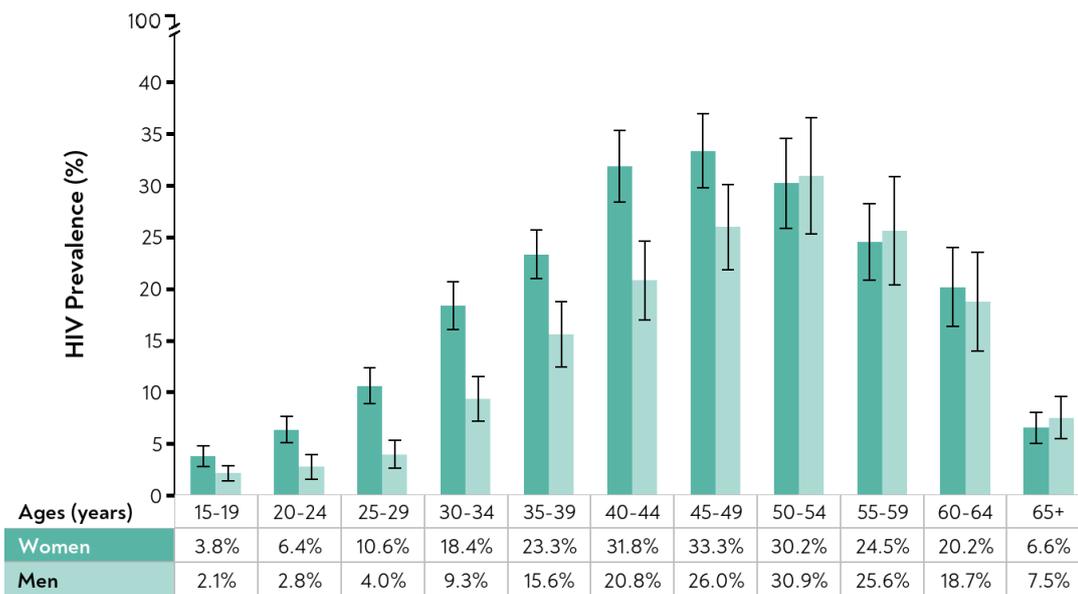
Prevalence of HIV among adults in Zimbabwe was 12.9%, which corresponds to approximately 1,225,000 adults living with HIV. HIV prevalence was 15.3% among women and 10.2% among men.

Prevalence of VLS among all adults living with HIV in Zimbabwe was 77.3%: 79.8% among women and 73.0% among men. These estimates of VLS are among all adults living with HIV regardless of their knowledge of HIV status or use of antiretroviral therapy (ART).

See phia.icap.columbia.edu for more details.



HIV PREVALENCE AMONG ADULTS



Error bars represent 95% CIs.

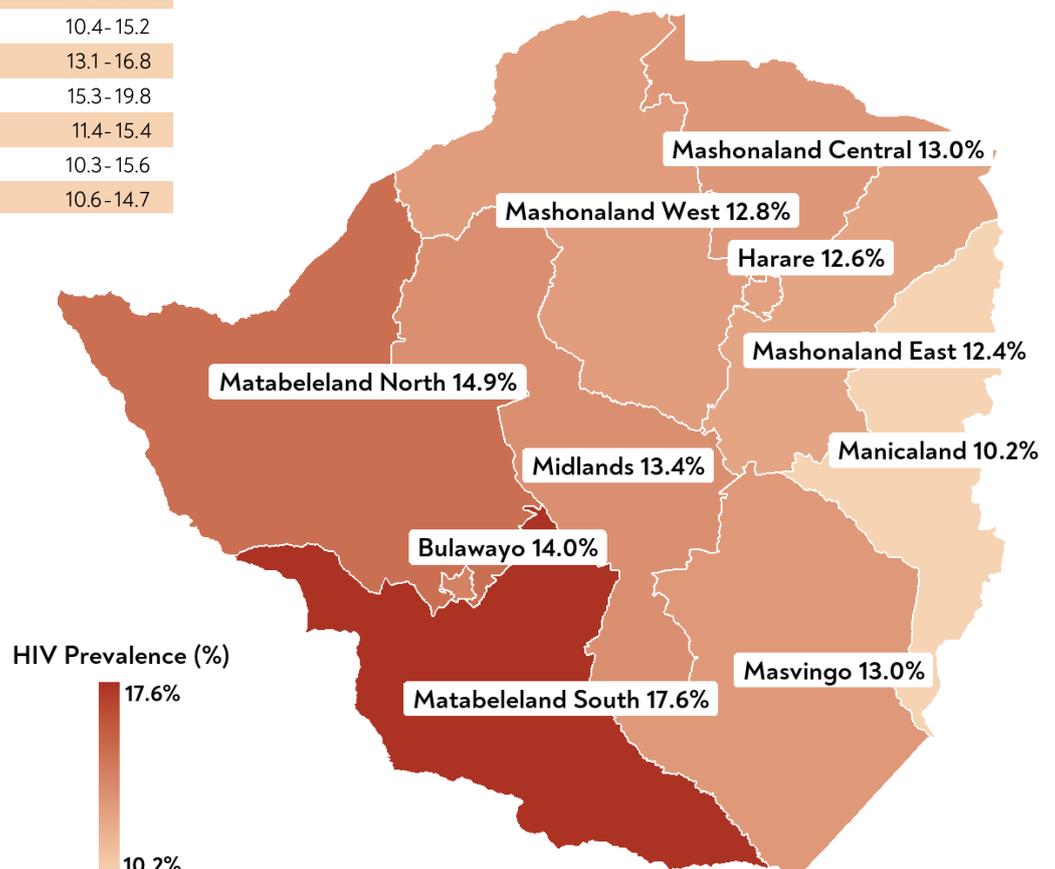
HIV PREVALENCE, by AGE and SEX

Among adults (ages 15 years and older), HIV prevalence ranged from 3.8% for older adolescent girls aged 15-19 years to 33.3% for women aged 45-49 years, and from 2.1% for older adolescent boys aged 15-19 years to 30.9% for men aged 50-54 years. HIV prevalence was consistently higher among women compared to men in the age groups 20-24 years through 40-44 years.

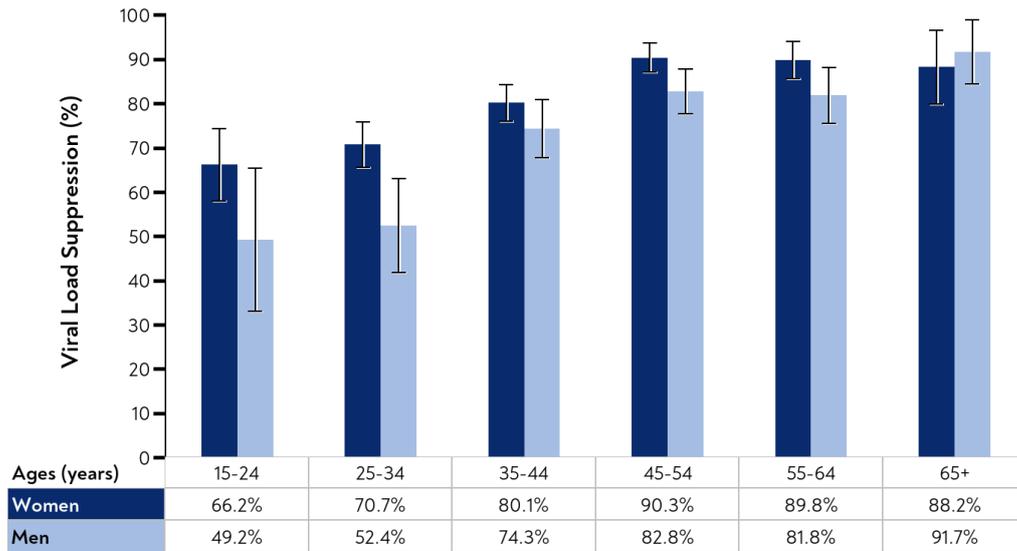
HIV PREVALENCE, by PROVINCE

Among adults, HIV prevalence varied geographically across Zimbabwe, ranging from 10.2% in Manicaland to 17.6% in Matabeleland South.

| Province | HIV Prevalence (%) | 95% CI |
|---------------------|--------------------|-----------|
| Bulawayo | 14.0 | 12.3-15.8 |
| Manicaland | 10.2 | 8.6-11.9 |
| Mashonaland Central | 13.0 | 11.0-15.1 |
| Mashonaland East | 12.4 | 10.7-14.0 |
| Mashonaland West | 12.8 | 10.4-15.2 |
| Matabeleland North | 14.9 | 13.1-16.8 |
| Matabeleland South | 17.6 | 15.3-19.8 |
| Midlands | 13.4 | 11.4-15.4 |
| Masvingo | 13.0 | 10.3-15.6 |
| Harare | 12.6 | 10.6-14.7 |



VIRAL LOAD SUPPRESSION AMONG ADULTS LIVING WITH HIV



Error bars represent 95% CIs.

VIRAL LOAD SUPPRESSION, by AGE and SEX

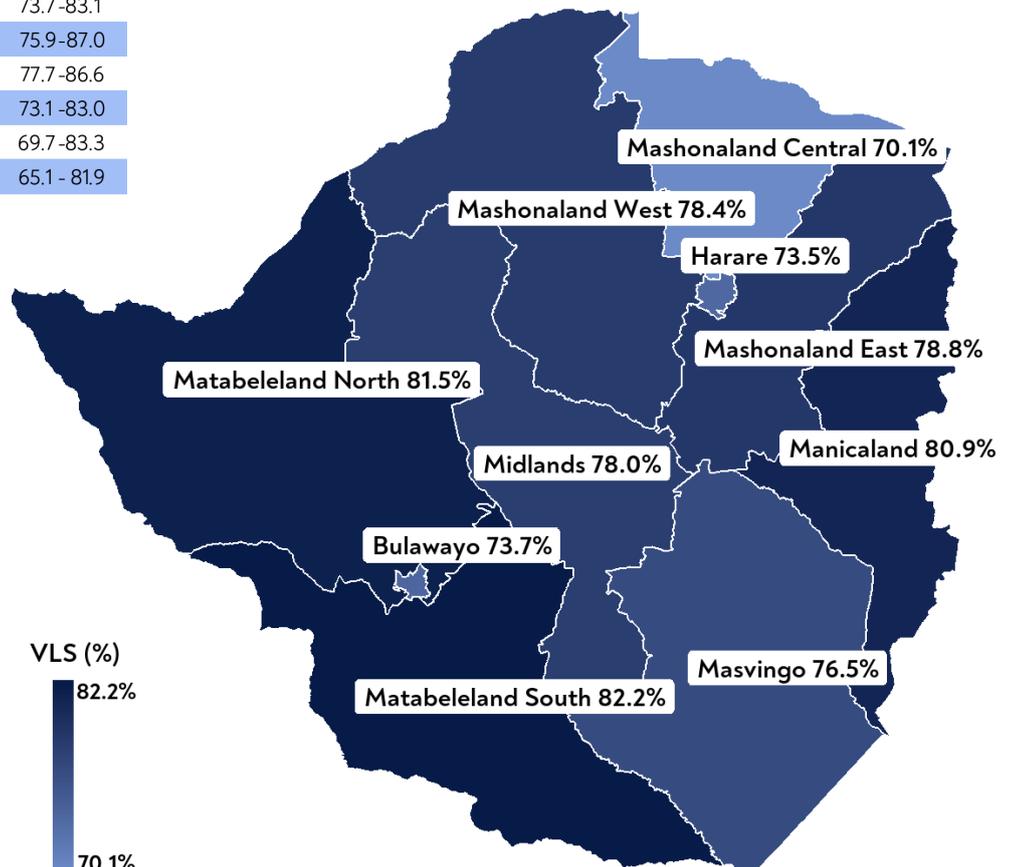
Among adults living with HIV (ages 15 years and older) in Zimbabwe, VLS ranged from 66.2% among women aged 15-24 years to 90.3% among women aged 45-54 years, and from 49.2% among men aged 15-24 years to 91.7% among men aged 65 years and older. VLS was higher among women than men at ages 25-34 years, with 70.7% of women and 52.4% of men achieving VLS. Among both sexes, there was a substantial increase in VLS among men and women aged 35-44 years compared to those aged 15-24 years and aged 25-34 years. There was also a marked increase in VLS among women aged 45-54 years compared to women aged 35-44 years.

VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE ADULTS, by PROVINCE

Among adults living with HIV, prevalence of VLS ranged from 70.1% in Mashonaland Central to 82.2% in Matabeleland South.

| Province | VLS Prevalence (%) | 95% CI |
|---------------------|--------------------|-----------|
| Bulawayo | 73.7 | 67.3-80.0 |
| Manicaland | 80.9 | 75.6-86.2 |
| Mashonaland Central | 70.1 | 64.8-75.4 |
| Mashonaland East | 78.8 | 73.6-84.0 |
| Mashonaland West | 78.4 | 73.7-83.1 |
| Matabeleland North | 81.5 | 75.9-87.0 |
| Matabeleland South | 82.2 | 77.7-86.6 |
| Midlands | 78.0 | 73.1-83.0 |
| Masvingo | 76.5 | 69.7-83.3 |
| Harare | 73.5 | 65.1-81.9 |

VLS=Viral load suppression.

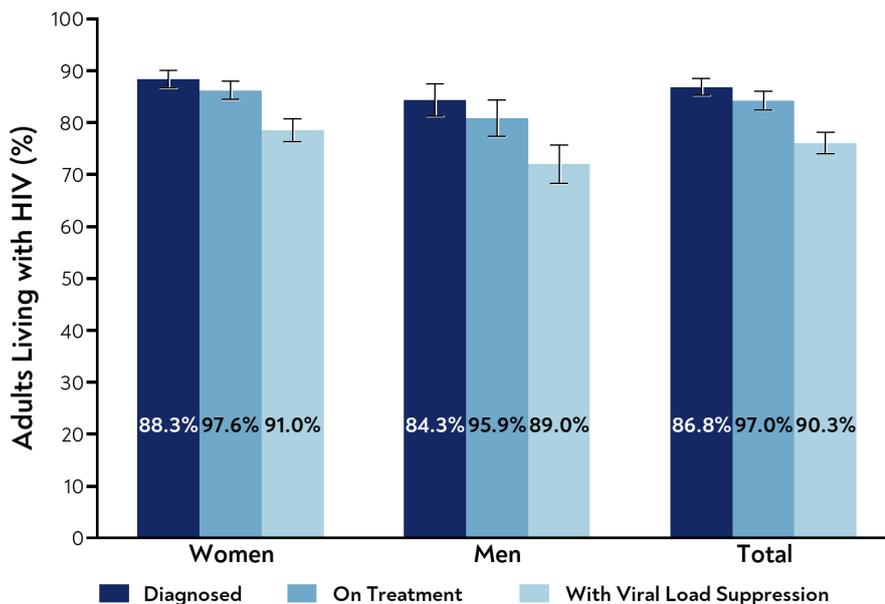


ACHIEVEMENT OF THE 90-90-90 TARGETS AMONG ADULTS LIVING WITH HIV

90-90-90: Treatment targets to help end the HIV epidemic

The Joint United Nations Programme on HIV/AIDS (UNAIDS) set the 90-90-90 targets with the aim that by 2020, 90% of all people living with HIV would know their HIV status; 90% of all people with diagnosed HIV infection would receive sustained ART; and 90% of all people receiving ART would have VLS.

ACHIEVEMENT OF THE 90-90-90 TARGETS AMONG HIV-POSITIVE ADULTS, by SEX



Diagnosed: In Zimbabwe, 86.8% of all adults living with HIV (ages 15 years and older) were aware of their HIV status: 88.3% of women living with HIV and 84.3% of men living with HIV. Individuals were classified as aware if they reported their HIV-positive status or had a detectable antiretroviral (ARV) in their blood.

On Treatment: Among adults with diagnosed HIV, 97.0% were on ART: 97.6% of women living with HIV and 95.9% of men living with HIV. Individuals were classified as being on ART if they reported current ART use or had a detectable ARV in their blood.

Viral Load Suppression: Among adults who were on ART, 90.3% had suppressed viral loads: 91.0% of women living with HIV and 89.0% of men living with HIV.

Percentages shown in the graph refer to the conditional 90-90-90 targets described in the text to the right. The heights of the bars represent the unconditional percentages for each indicator among all people living with HIV. Error bars represent 95% CIs.

CONCLUSIONS

- Zimbabwe has now met the second and third 90-90-90 targets and has achieved the overall target for 2020 by exceeding 73% of VLS among all adults living with HIV.
- ZIMPHIA's estimate of annual HIV incidence among adults aged 15-49 years has remained unchanged since the previous survey.
- Zimbabwe is well positioned to achieve the UNAIDS goal of ending the AIDS epidemic by 2030, provided the country continues efforts to expand HIV diagnosis and life-saving antiretroviral treatment.

RESPONSE RATES AND HIV TESTING METHODS

Of 11,707 eligible households, 89.1% completed a household interview. Among 22,751 eligible adults (13,290 eligible women and 9,461 eligible men), 19,535 (11,871 women and 7,664 men) were interviewed and tested for HIV. The overall response rate for adults was 76.5%: 79.6% for women, 72.2% for men.

HIV testing was conducted in each household using a serological rapid diagnostic testing algorithm based on national guidelines, with laboratory confirmation of seropositive samples using a supplemental assay. For confirmed HIV-positive samples, laboratory-based testing was conducted for quantitative evaluation of viral load and qualitative detection of ARV (efavirenz, nevirapine, atazanavir, and dolutegravir). A laboratory-based incidence testing algorithm (HIV-1 limiting antigen-avidity assay with correction for viral load and detectable ARVs) was used to distinguish recent from long-term infection. Incidence estimates were obtained using the formula recommended by the WHO Incidence Working Group and Consortium for Evaluation and Performance of Incidence Assays. Survey weights were utilized for all estimates.