

ZIMBABWE POPULATION-BASED HIV IMPACT ASSESSMENT

ZIMPHIA 2015-2016



The Zimbabwe Population-Based HIV Impact Assessment (ZIMPHIA), a household-based national survey, was conducted between October 2015 and August 2016 in order to

measure the status of Zimbabwe's national HIV response. ZIMPHIA offered HIV counseling and testing with return of results, and collected information about uptake of HIV care and treatment services. This survey is the first in Zimbabwe to measure national HIV incidence and viral load suppression. The results provide information on national and subnational progress toward control of the HIV epidemic.

ZIMPHIA was led by the Government of Zimbabwe through the Ministry of Health and Child Care (MOHCC), conducted with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and technical assistance through the U.S. Centers for Disease Control and Prevention (CDC). The survey was implemented by ICAP at Columbia University in collaboration with local partners, including the National AIDS Council (NAC), Zimbabwe National Statistics Agency (ZIMSTAT), and Biomedical Research and Training Institute (BRTI).

KEY FINDINGS

HIV Indicator	Female	95% CI	Male	95% CI	Total	95% CI
Annual incidence (%)						
15-49 years	0.67	0.37-0.97	0.28	0.06-0.50	0.48	0.29-0.66
15-64 years	0.59	0.32-0.85	0.31	0.09-0.52	0.45	0.28-0.62
Prevalence (%)						
15-49 years	16.6	15.8-17.4	11.2	10.4-12.1	14.0	13.3-14.7
15-64 years	16.7	16.0-17.4	12.4	11.5-13.2	14.6	14.0-15.3
0-14 years	---	---	---	---	1.6	1.2-2.0
Viral load suppression (%)						
15-64 years	64.5	62.2-66.7	54.3	51.1-57.6	60.4	58.3-62.5

95% CI (confidence interval) indicates the interval within which the true population parameter is expected to fall 95% of the time. Viral load suppression is defined as HIV RNA <1,000 copies per ml of plasma among HIV-positive adults.

Annual incidence of HIV among adults ages 15 to 64 years in Zimbabwe is 0.45 percent: 0.59 percent among females and 0.31 percent among males. This corresponds to approximately 32,000 new cases of HIV annually among adults ages 15 to 64 years in Zimbabwe.

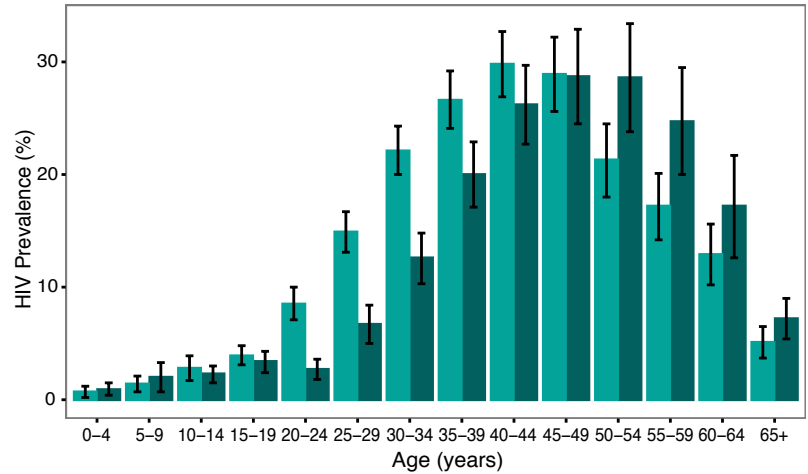
Prevalence of HIV among adults ages 15 to 64 years in Zimbabwe is 14.6 percent: 16.7 percent among females and 12.4 percent among males. This corresponds to approximately 1.2 million people living with HIV (PLHIV) ages 15 to 64 years in Zimbabwe.

Prevalence of viral load suppression (VLS) among HIV-positive adults ages 15 to 64 years in Zimbabwe is 60.4 percent: 64.5 percent among females and 54.3 percent among males.

HIV PREVALENCE, BY AGE AND SEX

HIV prevalence peaks at nearly 30 percent for both females (29.8 percent) and males (28.7 percent), but occurs at a slightly older age among males (45 to 49 years) as compared to females (40 to 44 years). The disparity in HIV prevalence by sex is most pronounced among young adults: HIV prevalence among 20- to 24-year-olds is three times higher among females (8.5 percent) than males (2.7 percent).

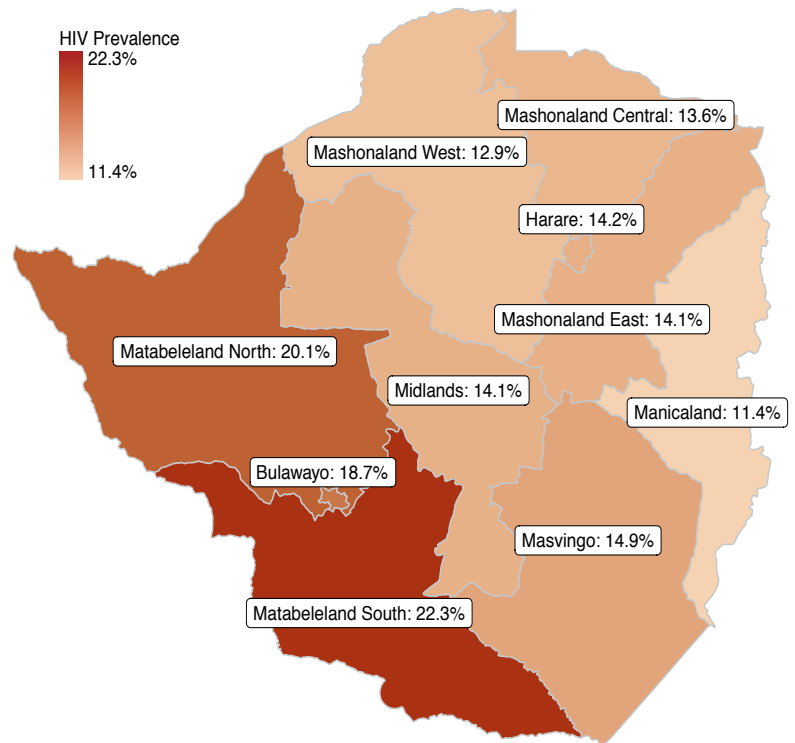
■ Females
■ Males
 Error bars represent 95% confidence intervals.



HIV PREVALENCE AMONG ADULTS, BY PROVINCE

Among adults ages 15 to 64 years, prevalence of HIV varies geographically across Zimbabwe, ranging from 11.4 percent in Manicaland to 20.1 percent in Matabeleland North and 22.3 percent in Matabeleland South.

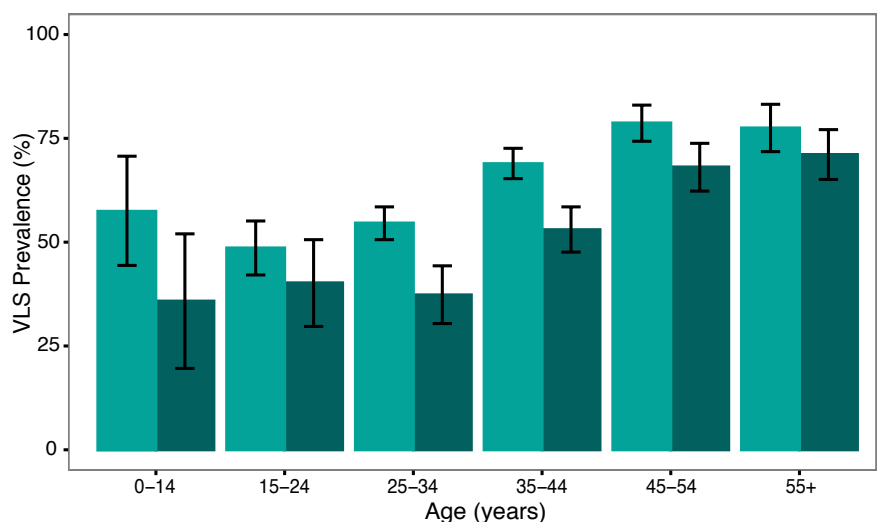
Province	HIV Prevalence	95% CI
Manicaland	11.4	9.9-12.9
Mashonaland Central	13.6	11.6-15.7
Mashonaland East	14.1	12.1-16.1
Mashonaland West	12.9	10.6-15.2
Matabeleland North	20.1	17.7-22.4
Matabeleland South	22.3	19.9-24.7
Midlands	14.1	12.0-16.1
Masvingo	14.9	12.6-17.2
Harare	14.2	12.6-15.8
Bulawayo	18.7	17.1-20.2



VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE PEOPLE, BY AGE AND SEX

Prevalence of VLS among HIV-positive people in Zimbabwe is highest among older adults: 78.7 percent among HIV-positive females ages 45 to 54 years and 71.1 percent among HIV-positive males age 55 years or older. In contrast, prevalence of VLS is distinctly lower among younger adults: 48.6 percent among HIV-positive females and 40.2 percent among HIV-positive males ages 15 to 24 years.

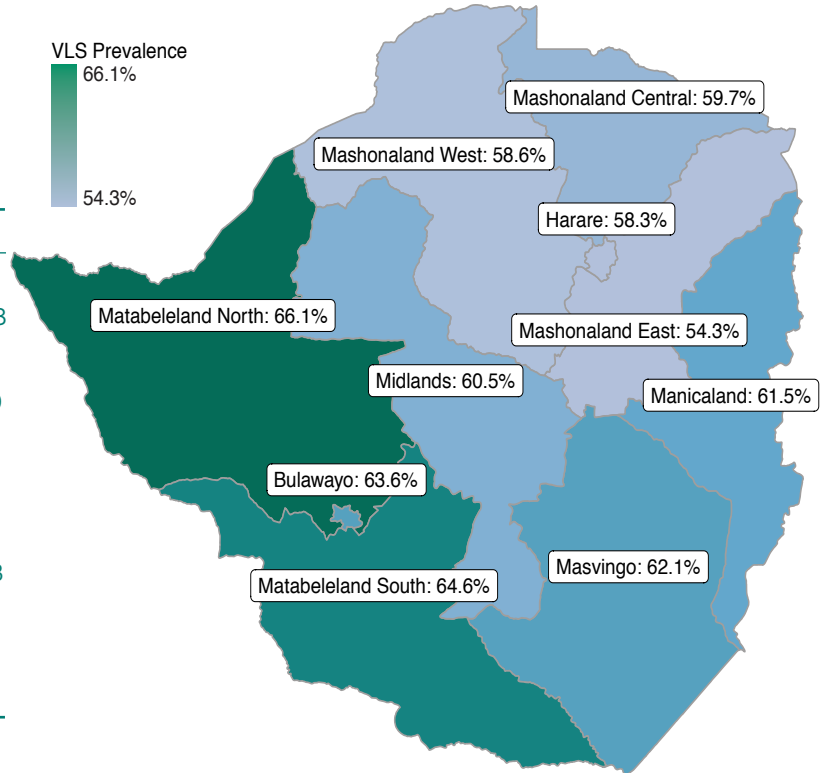
■ Females
■ Males
 Error bars represent 95% confidence intervals.



VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE ADULTS, BY PROVINCE

Among HIV-positive adults ages 15 to 64 years, prevalence of VLS varies geographically across Zimbabwe, ranging from 54.3 percent in Mashonaland East to 66.1 percent in Matabeleland North.

Province	VLS Prevalence	95% CI
Manicaland	61.5	52.8-70.3
Mashonaland Central	59.7	54.6-64.8
Mashonaland East	54.3	46.6-62.1
Mashonaland West	58.6	53.2-64.0
Matabeleland North	66.1	61.1-71.2
Matabeleland South	64.6	59.0-70.2
Midlands	60.5	52.7-68.3
Masvingo	62.1	55.9-68.3
Harare	58.3	51.8-64.9
Bulawayo	63.6	57.1-70.1



ACHIEVEMENT OF THE 90-90-90 GOALS AMONG HIV-POSITIVE ADULTS, BY SEX

90-90-90: an ambitious treatment target to help end the AIDS epidemic

By 2020, 90 percent of all PLHIV will know their HIV status; 90 percent of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART); and 90 percent of all people receiving ART will have viral suppression.

Diagnosed

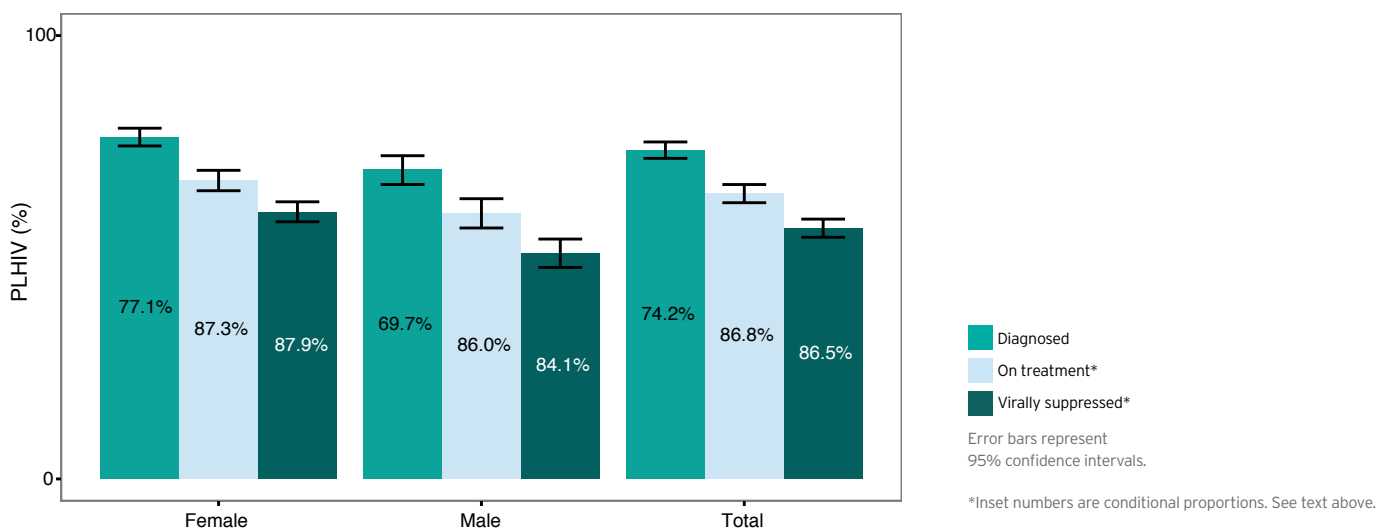
In Zimbabwe, 74.2 percent of PLHIV ages 15 to 64 years report knowing their HIV status: 77.1 percent of HIV-positive females and 69.7 percent of HIV-positive males know their HIV status.

On Treatment

Among PLHIV ages 15 to 64 years who know their HIV status, 86.8 percent self-report current use of ART: 87.3 percent of HIV-positive females and 86.0 percent of HIV-positive males who know their HIV status self-report current use of ART.

Virally Suppressed

Among PLHIV ages 15 to 64 years who self-report current use of ART, 86.5 percent are virally suppressed: 87.9 percent of HIV-positive females and 84.1 percent of HIV-positive males who self-report current use of ART are virally suppressed.



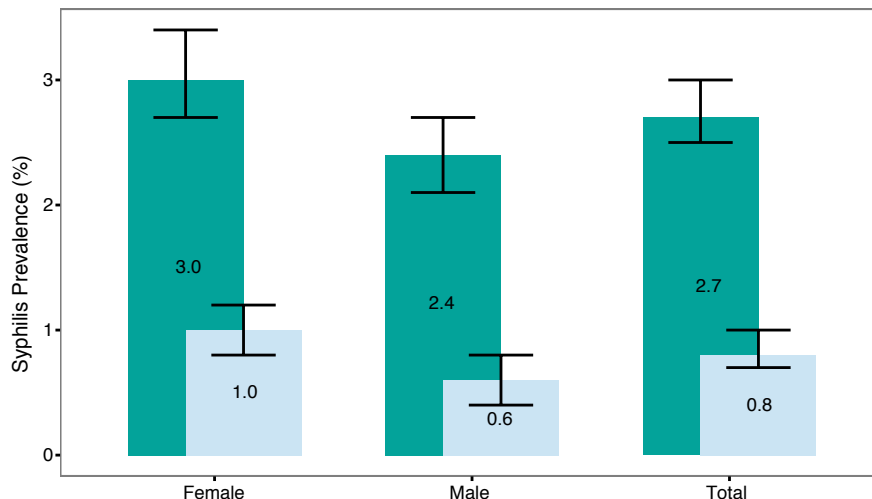
SYPHILIS PREVALENCE AMONG ADULTS, BY SEX

Among adults ages 15 to 64 years in Zimbabwe, 3.0 percent of females and 2.4 percent of males have ever been infected with syphilis. Prevalence of active syphilis infection is 1.0 percent among females and 0.6 percent among males ages 15 to 64 years.

Syphilis testing was conducted in each household using a serological dual non-treponemal and treponemal rapid diagnostic test.

The percentage of adults ever infected with syphilis includes people with active infection.

Ever infected
Active infection



CONCLUSIONS

- Progress toward the 90-90-90 goals in Zimbabwe demonstrates that the national HIV program has made great strides in responding to its HIV epidemic.
- ZIMPHIA's estimate of national HIV incidence provides further evidence of an improving epidemic.
- The goal of ending the AIDS epidemic in Zimbabwe by 2030 is within reach, provided there is continued expansion of HIV treatment programs and targeted HIV testing, especially for men and young women.

RESPONSE RATES AND HIV TESTING METHODS

Of 13,971 eligible households, 83.9 percent completed a household interview. Of 14,032 eligible women and 11,093 eligible men ages 15 to 64 years, 86.8 percent of women and 75.7 percent of men were interviewed and tested for HIV. Of 9,627 eligible children ages 0 to 14 years, 73.1 percent were tested for HIV.

HIV prevalence testing was conducted in each household using a serological rapid diagnostic testing algorithm based on Zimbabwe's national guidelines, with laboratory confirmation of seropositive samples using a supplemental assay. A laboratory-based incidence testing algorithm (HIV-1 LAg avidity plus viral load) was used to distinguish recent from long-term infection, and incidence estimates were obtained using the CDC Incidence Calculator, which uses [the formula recommended](#) by the WHO Incidence Working Group and Consortium for Evaluation and Performance of Incidence Assays, with time cutoff (T)=1.0 year and residual proportion false recent (PFR)=0.00. Survey weights are utilized for all estimates.

The PHIA Project is a multi-country project funded by PEPFAR to conduct national HIV-focused surveys that describe the status of the HIV epidemic. Results will measure important national and regional HIV-related parameters, including progress toward 90-90-90 goals, and will guide policy and funding priorities. ICAP at Columbia University is implementing the PHIA Project in close collaboration with CDC and other partners.

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



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