

NAMIBIA POPULATION-BASED HIV IMPACT ASSESSMENT NAMPHIA 2017



The Namibia Population-Based HIV Impact Assessment (NAMPHIA) was a cross-sectional household-based survey conducted between June and December 2017 to assess the progress of Namibia's national HIV response.

NAMPHIA offered participants HIV counseling and testing with return of results, and active linkage to care for those who tested HIV positive, and collected information on risk behaviors and uptake of HIV prevention, care, and treatment services. This was the first time such a survey was conducted in Namibia among those aged 0 to 64 years. Results will inform policy for regional and national HIV interventions.

NAMPHIA was led by the Government of the Republic of Namibia through the Ministry of Health and Social Services (MOHSS), 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 through a partnership with the University of California, San Francisco (UCSF), and in collaboration with MOHSS, the Namibia Statistics Agency, and the Namibia Institute of Pathology.

KEY FINDINGS

HIV Indicator	Female	95% CI	Male	95% CI	Total	95% CI
Annual incidence (%)						
15-24 years	0.99	0.30-1.68	0.03	0.00-0.14	0.51	0.16-0.86
15-49 years	0.67	0.27-1.05	0.15	0.00-0.32	0.40	0.19-0.61
15-64 years	0.59	0.25-0.94	0.13	0.00-0.28	0.36	0.18-0.55
Prevalence (%)						
0-14 years	1.1	0.7-1.5	1.0	0.6-1.4	1.0	0.8-1.3
15-24 years	5.4	4.6-6.2	2.5	1.9-3.1	4.0	3.4-4.5
15-49 years	14.8	13.7-16.0	8.0	7.2-8.8	11.5	10.7-12.4
15-64 years	15.7	14.5-16.8	9.3	8.5-10.1	12.6	11.7-13.5
Viral load suppression (%)						
15-64 years	81.7	79.1-84.3	69.6	65.2-74.0	77.4	74.8-80.0

95% confidence intervals are ranges calculated such that if the survey were repeated multiple times, the resulting range would include the true population value 95% of the time. Viral load suppression is defined as HIV RNA <1,000 copies per ml of plasma among HIV-positive adults.

Annual incidence¹ of HIV among adults aged 15-64 years in Namibia was 0.36% (0.59% among females and 0.13% among males). This corresponds to approximately 4,500 (95% CI, 2,200-6,800) new cases of HIV annually among adults aged 15-64 years in Namibia. Incidence was higher among women aged 15-24 years (0.99%) than among men aged 15-24 years (0.03%).

Prevalence of HIV² among adults aged 15-64 years in Namibia was 12.6% (15.7% among females and 9.3% among males). This corresponds to approximately 176,000 (95% CI, 164,000-189,000) people living with HIV (PLHIV) aged 15-64 years in Namibia. Prevalence of HIV among children aged 0-14 years was 1.0%. This corresponds to approximately 9,000 (95% CI, 7,000-11,000) children living with HIV. The estimated number of PLHIV among all people aged 0-64 years was 185,000 (95% CI, 173,000-198,000). This survey did not include people aged 65 years and older.

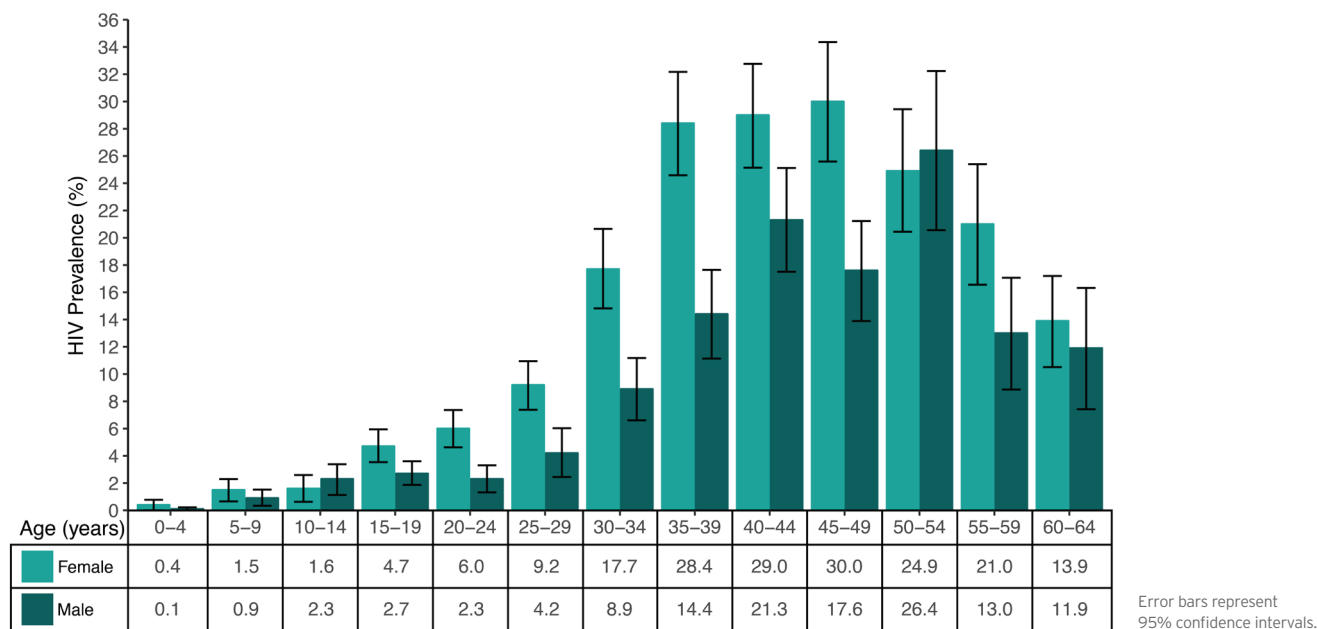
Prevalence of viral load suppression (VLS) among HIV-positive adults aged 15-64 years in Namibia was 77.4%: 81.7% among females and 69.6% among males.

¹ HIV incidence is the measure of new infections of HIV per year. A laboratory-based HIV recent-infection testing algorithm was used to distinguish recent from long-term infection.

² HIV prevalence is a measure of the proportion of the population currently infected with HIV.

HIV PREVALENCE, BY AGE AND SEX

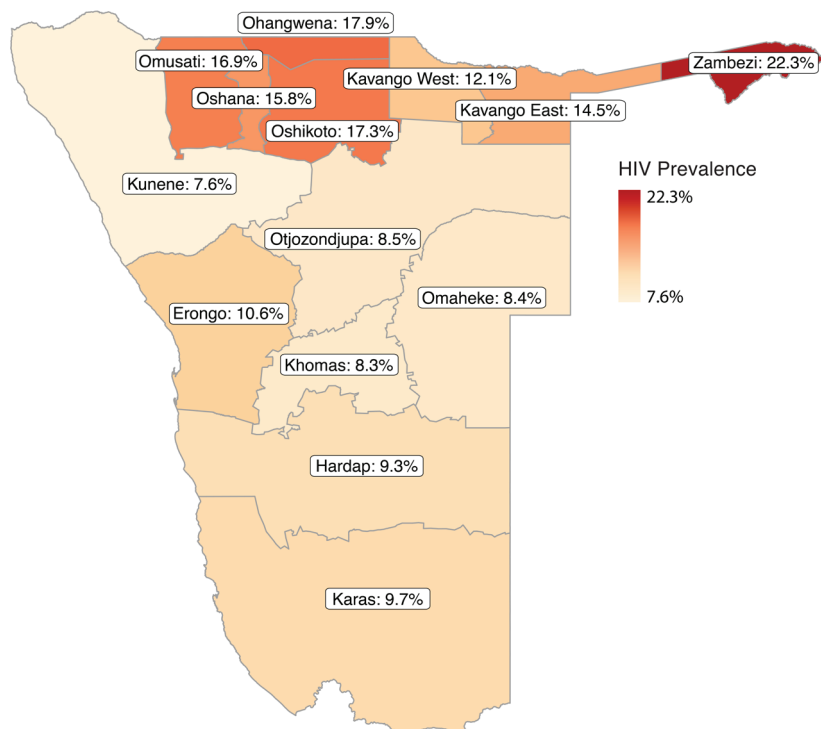
HIV prevalence peaked at 30.0% among females aged 45-49 years as compared to 26.4% among males aged 50-54 years. HIV prevalence was higher in women than men throughout the reproductive years (15-49). The disparity was most pronounced among those aged 35-39 years, with HIV-positive females at 28.4% and males at 14.4%, and among those aged 20-24 years, with HIV-positive females at 6.0% and males at 2.3%.



HIV PREVALENCE AMONG ADULTS, BY REGION

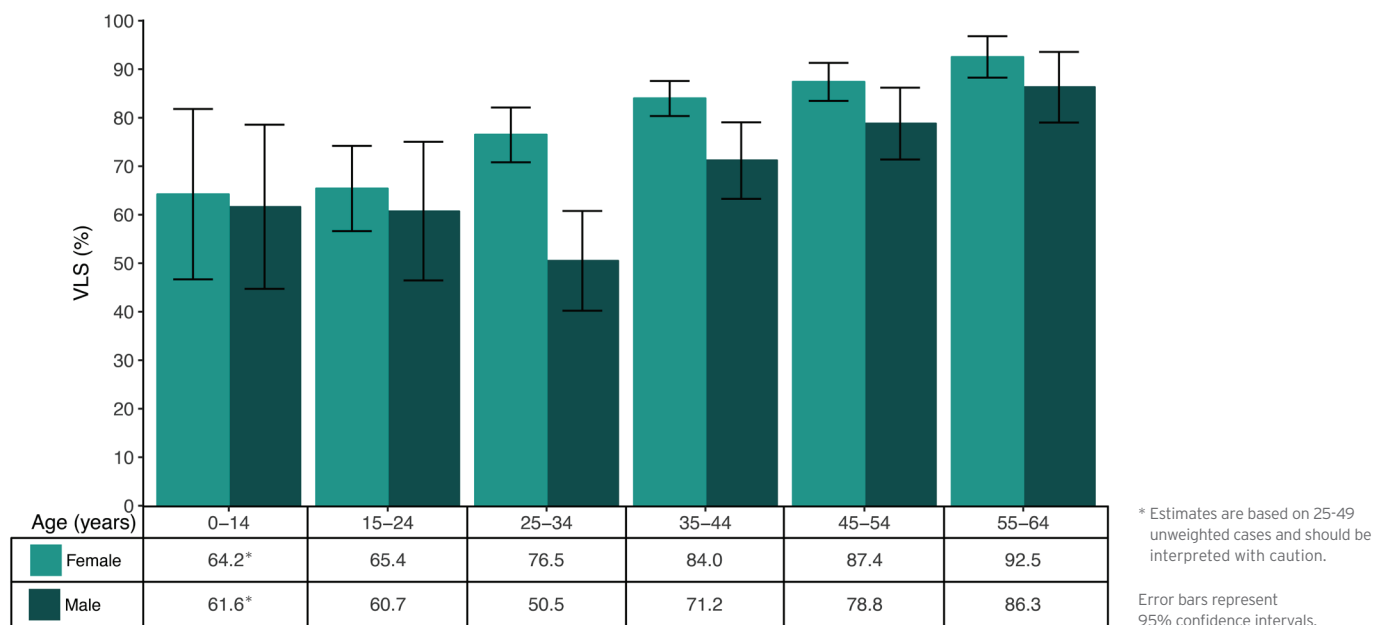
Among adults aged 15-64 years, prevalence of HIV varies geographically across Namibia, ranging from 7.6% in Kunene to 17.9% and 22.3% in Ohangwena and Zambezi, respectively. Regions with higher than national prevalence tended to have higher HIV prevalence among females than males. The regions with the lowest prevalence were Kunene and Khomas.

Region	HIV Prevalence (%)	95% CI
Erongo	10.6	5.2-16.0
Hardap	9.3	5.5-13.1
Karas	9.7	7.3-12.0
Kavango East	14.5	11.5-17.4
Kavango West	12.1	9.3-14.9
Khomas	8.3	6.6-10.1
Kunene	7.6	4.9-10.3
Ohangwena	17.9	16.0-19.8
Omaheke	8.4	6.7-10.2
Omusati	16.9	14.9-18.9
Oshana	15.8	12.0-19.5
Oshikoto	17.3	13.9-20.7
Otjozondjupa	8.5	6.0-11.0
Zambezi	22.3	17.5-27.0



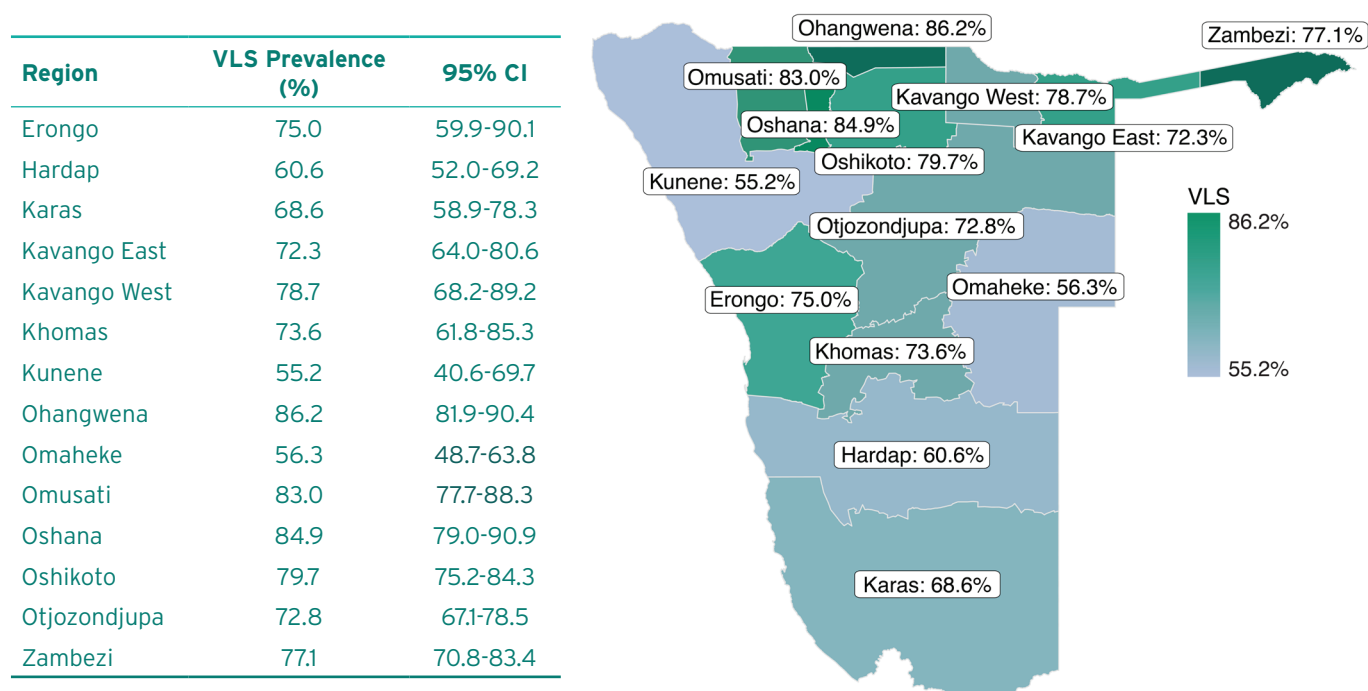
VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE PEOPLE, BY AGE AND SEX

Prevalence of VLS (HIV RNA <1,000 copies/ml among HIV-positive people) was highest among older adults: 92.5% among HIV-positive females and 86.3% among HIV-positive males aged 55-64 years. In contrast, prevalence of VLS was lowest among younger adults: 65.4% among HIV-positive females aged 15-24 years, and 50.5% among HIV-positive males aged 25-34 years. The difference in VLS among females and males was most pronounced among those aged 25-34 years, with HIV-positive females at 76.5% and males at 50.5%.



VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE ADULTS, BY REGION

Among HIV-positive adults aged 15-64 years, prevalence of VLS varied geographically across Namibia, ranging from 55.2% in Kunene to 86.2% in Ohangwena.



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

UNAIDS and affected countries have set the 90-90-90 targets by 2020: 90% of all PLHIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART); and 90% of all people receiving ART will have viral suppression.

Diagnosed

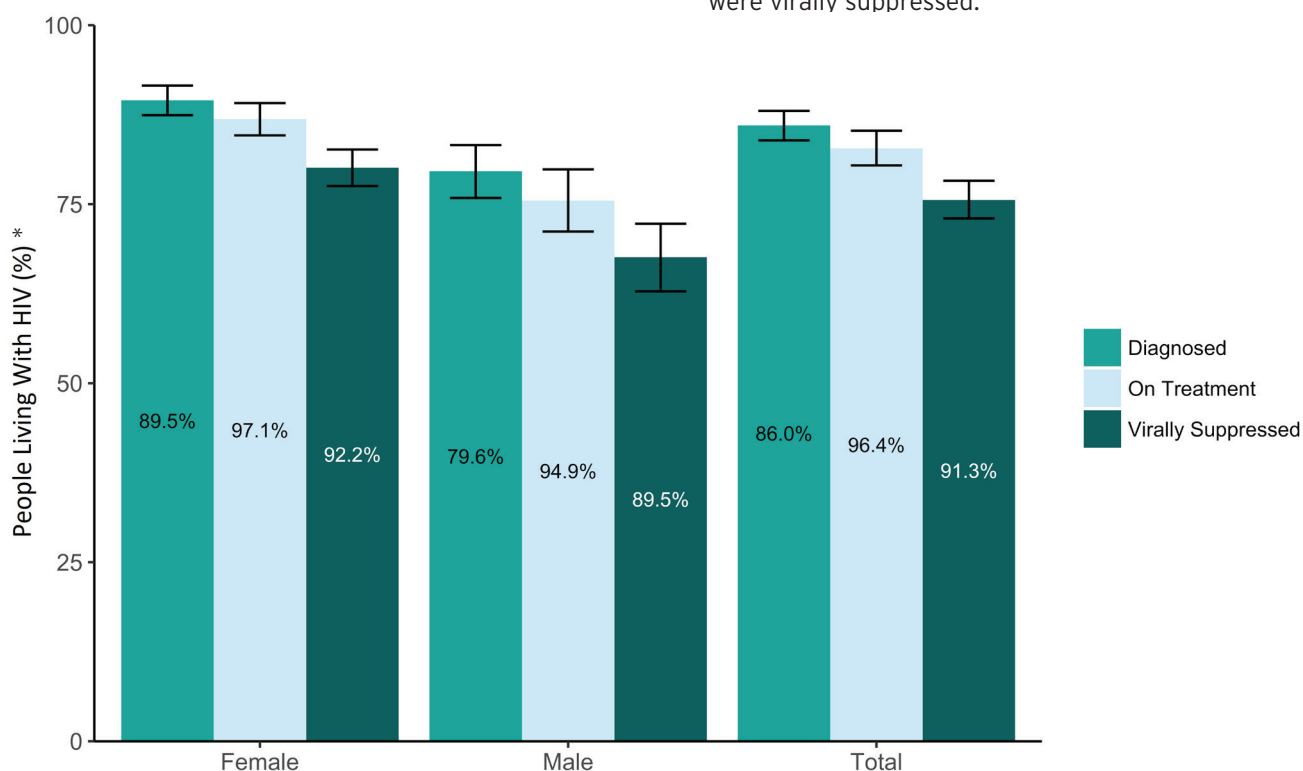
In Namibia, 86.0% of PLHIV aged 15-64 years were aware of their HIV status: 89.5% of HIV-positive females and 79.6% of HIV-positive males. Awareness was defined as self-reporting HIV positive and/or having a detectable antiretroviral (ARV) in the blood.

On Treatment

Among PLHIV aged 15-64 years who knew their HIV status, 96.4% were currently on antiretroviral treatment (ART): 97.1% of HIV-positive females and 94.9% of HIV-positive males who knew their HIV status were currently on ART. Being on ART was defined as self-reporting current use of ART and/or having a detectable ARV in the blood.

Virally Suppressed

Among PLHIV aged 15-64 years who self-reported current use of ART and/or had a detectable ARV in their blood, 91.3% were virally suppressed: 92.2% of HIV-positive females and 89.5% of HIV-positive males were virally suppressed.

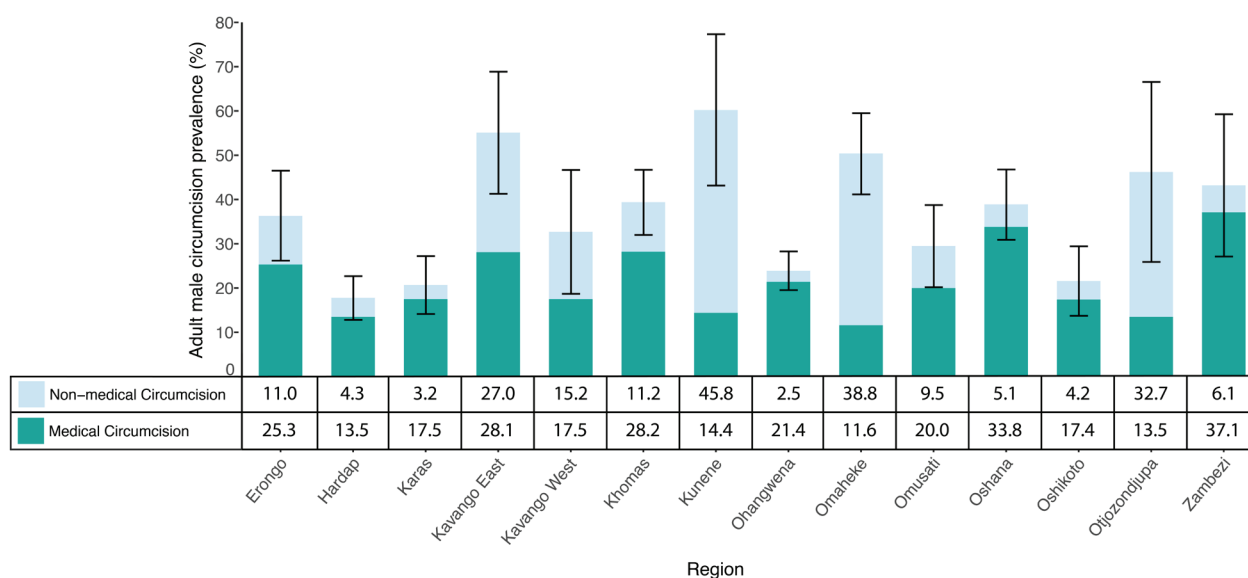


Error bars represent 95% confidence intervals.

* Inset numbers are conditional proportions.

MEDICAL AND NON-MEDICAL CIRCUMCISION AMONG ADULT MALES, BY REGION

Among males aged 15-64 years, prevalence of self-reported complete (non-medical and medical) male circumcision was 36.4%. Circumcision rates ranged geographically, from a low of 17.8% in Hardap to a high of 60.2% in Kunene region. Regions with the highest non-medical circumcision rates were Kavango East, Kunene, Omaheke, and Otjozondjupa. Medical circumcision rates in Zambezi, Oshana, and Ohangwena were more than six times higher than non-medical circumcision rates.



Error bars represent pooled (medical and non-medical circumcision) 95% confidence intervals.

Self-reported circumcision only includes those who are fully circumcised either through medical or traditional methods.

CONCLUSIONS

- In Namibia, HIV prevalence was 12.6% among adults aged 15-64 years in 2017.
- Annual incidence was 0.36% for persons aged 15-64 years in 2017.
- Namibia's HIV interventions have resulted in excellent progress towards the UNAIDS' targets. Women in Namibia have achieved the UNAIDS 90-90-90 goals.
- Once diagnosed, over 90% of both female and male PLHIV were linked to ART and were virally suppressed.
- Prevalence of VLS among HIV-positive adults aged 15-64 years was 77.4%. This shows that Namibia has surpassed the UNAIDS 90-90-90 target for viral load suppression (73.0%).

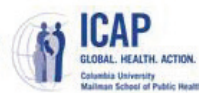
RESPONSE RATES AND HIV TESTING METHODS

Of 10,921 eligible households, 85.0% completed a household interview. Among those eligible aged 15-64 years, 84.0% of 11,510 eligible women and 73.0% of 9,954 eligible men completed interviews and tested for HIV. Of 7,887 eligible children aged 0-14 years, 85.7% participated in HIV testing. The overall response rates were 71.4% for women, 62.1% for men, and 72.9% for children.

HIV prevalence testing was conducted in each household using a serological rapid diagnostic testing algorithm based on Namibia's national guidelines. Laboratory confirmation of seropositive samples was obtained using a supplemental assay. A laboratory-based incidence testing algorithm (HIV-1 LAg avidity plus viral load and ARV results) was used to distinguish recent from long-term infection, and incidence estimates were obtained using the formula recommended by the World Health Organization 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 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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