LESOTHO POPULATION-BASED HIV IMPACT ASSESSMENT
LePHIA 2016-2017

The Lesotho Population-Based HIV Impact Assessment (LePHIA), a household-based national survey, was conducted between November 2016 and May 2017 in order to measure the status of Lesotho's national HIV response. LePHIA offered HIV counseling and testing with return of results, and collected information about uptake of HIV care and treatment services. This survey was designed to measure HIV incidence, prevalence, and viral load suppression in the population 15 to 59 years of age and prevalence in the population 0 to 14 years of age. The results provide information on national and subnational progress toward control of the HIV epidemic.

LePHIA was led by the Government of Lesotho throu gh the Ministry of Health, 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 the Lesotho Bureau of Statistics.

KEY FINDINGS

HIV Indicator	Female	95% CI	Male	95% CI	Total	95% CI
Annual incidence (%)						
15-49 years	1.81	1.13-2.48	1.33	0.55-2.10	1.55	0.98-2.11
15-59 years	1.74	1.11-2.38	1.22	0.50-1.94	1.47	0.94-1.99
Prevalence (%)						
15-49 years	29.7	28.5-30.9	19.1	18.0-20.3	24.3	23.4-25.2
15-59 years	30.4	29.2-31.5	20.8	19.6-22.0	25.6	24.7-26.4
0-14 years	2.6	1.8-3.3	1.5	1.0-2.1	2.1	1.5-2.6
Viral load suppression (%)						
15-49 years	68.9	66.4-71.3	59.2	55.8-62.6	65.0	62.9-67.1
15-59 years	70.5	68.3-72.7	63.4	60.4-66.4	67.6	65.7-69.5

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.

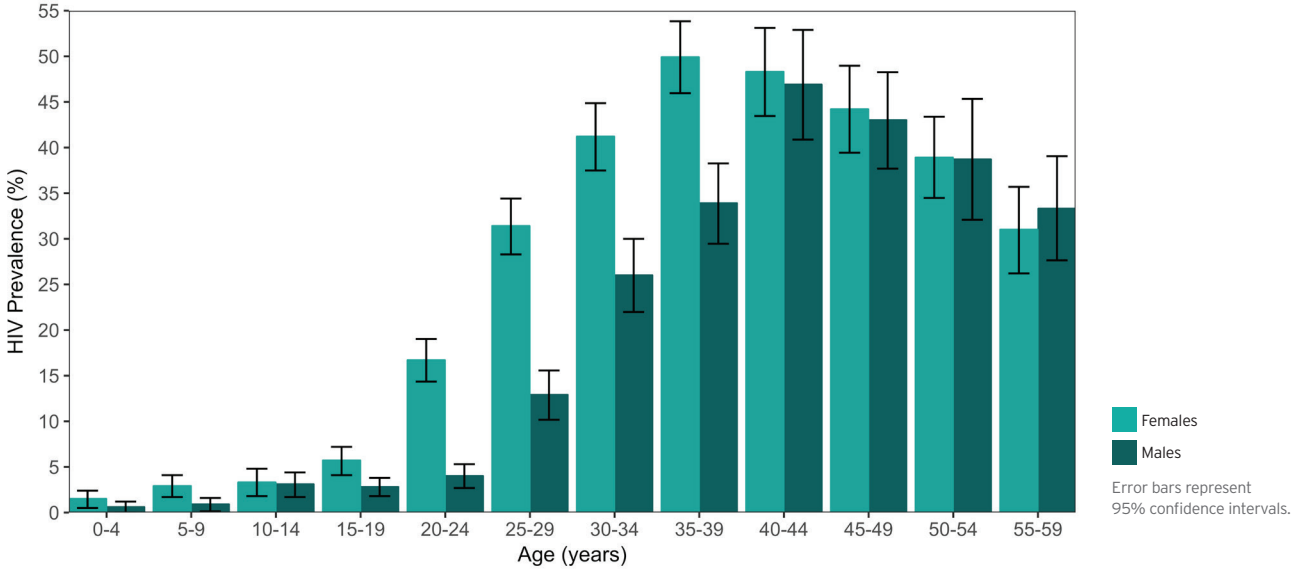
Annual incidence of HIV among adults ages 15 to 59 years in Lesotho is 1.47%: 1.74% among females and 1.22% among males. This corresponds to approximately 13,000 new cases of HIV annually among adults ages 15 to 59 years in Lesotho.

Prevalence of HIV among adults ages 15 to 59 years in Lesotho is 25.6%: 30.4% among females and 20.8% among males. This corresponds to approximately 306,000 people living with HIV (PLHIV) ages 15 to 59 years in Lesotho. Prevalence of HIV among children ages 0 to 14 years in Lesotho is 2.1%: 2.6% among females and 1.5% among males. This corresponds to approximately 13,000 children living with HIV (CLHIV) ages 0 to 14 years in Lesotho.

Prevalence of viral load suppression (VLS) among HIV-positive adults ages 15 to 59 years in Lesotho is 67.6%: 70.5% among females and 63.4% among males.

HIV PREVALENCE, BY AGE AND SEX

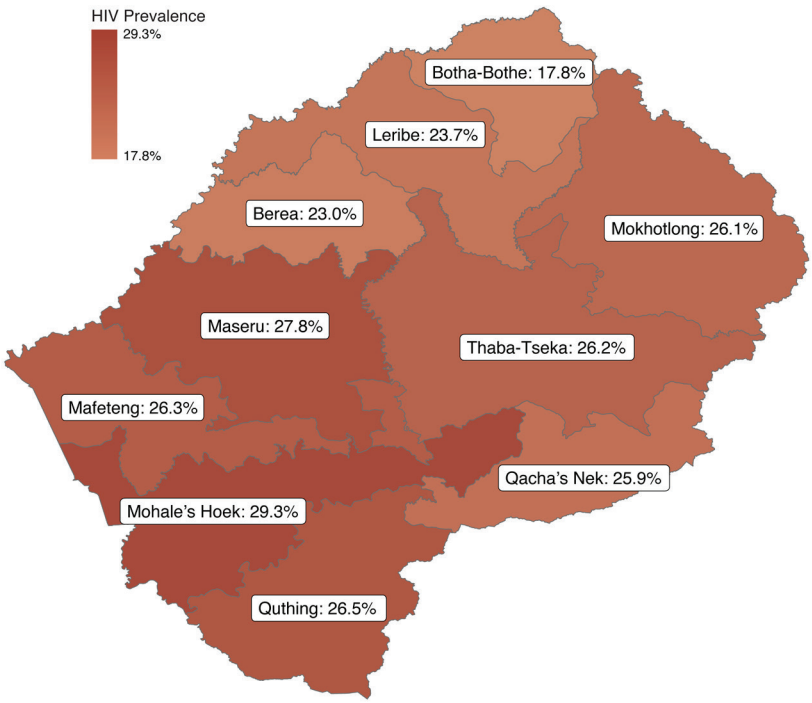
HIV prevalence peaks at 49.9% among females ages 35 to 39 as compared to 46.9% among males ages 40 to 44 years. The disparity in HIV prevalence by sex is most pronounced among young adults: HIV prevalence among 20- to 24-year-olds is four times as high among females (16.7%) than males (4.0%).



HIV PREVALENCE AMONG ADULTS, BY DISTRICT

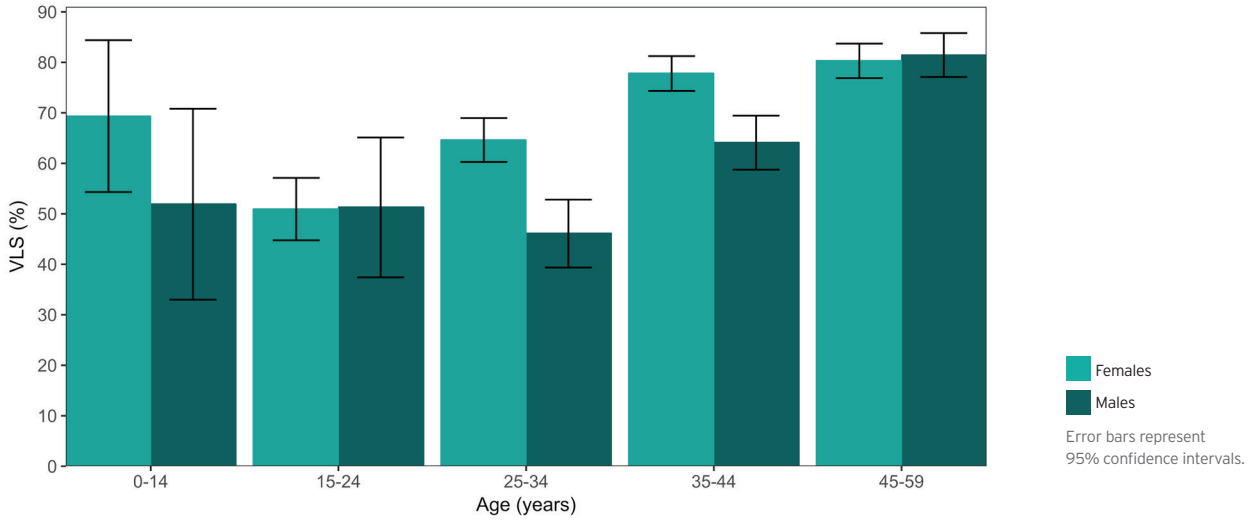
Among adults ages 15 to 59 years, prevalence of HIV varies geographically across Lesotho, ranging from a low of 17.8% in Botha-Bothe to a high of 29.3% in Mohale's Hoek.

District	HIV Prevalence (%)	95% CI
Botha-Bothe	17.8	14.8-20.8
Leribe	23.7	21.6-25.7
Berea	23.0	20.2-25.8
Maseru	27.8	26.1-29.4
Mafeteng	26.3	23.9-28.8
Mohale's Hoek	29.3	26.0-32.5
Quthing	26.5	21.7-31.2
Qacha's Nek	25.9	19.4-32.4
Mokhotlong	26.1	21.8-30.5
Thaba-Tseka	26.2	22.5-29.9



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

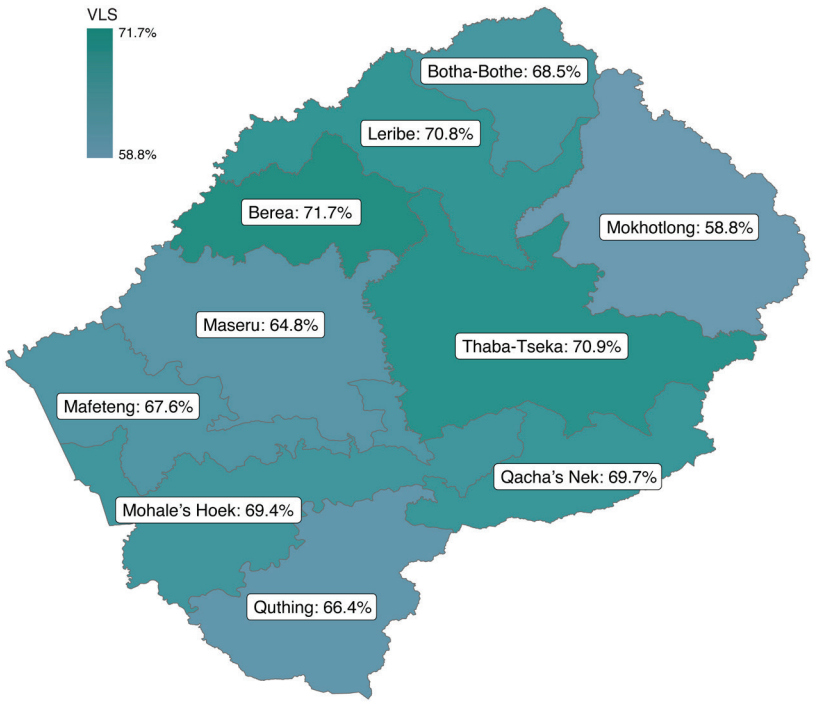
Prevalence of VLS among HIV-positive people in Lesotho is highest among older people ages 45 to 59 years: 80.3% among HIV-positive females and 81.4% among HIV-positive males. In contrast, prevalence of VLS is distinctly lower among younger adults: 50.9% among HIV-positive females ages 15 to 24 years and 46.1% among HIV-positive males ages 25 to 34 years.



VIRAL LOAD SUPPRESSION AMONG HIV-POSITIVE ADULTS, BY DISTRICT

Among HIV-positive adults ages 15 to 59 years, prevalence of VLS varies geographically across Lesotho, ranging from 58.8% in Mokhotlong to 71.7% in Berea.

District	VLS Prevalence (%)	95% CI
Botha-Bothe	68.5	62.1-74.9
Leribe	70.8	66.7-74.8
Berea	71.7	65.8-77.6
Maseru	64.8	61.4-68.2
Mafeteng	67.6	62.4-72.9
Mohale's Hoek	69.4	61.3-77.6
Quthing	66.4	60.7-72.1
Qacha's Nek	69.7	63.5-75.9
Mokhotlong	58.8	47.9-69.8
Thaba-Tseka	70.9	62.3-78.6



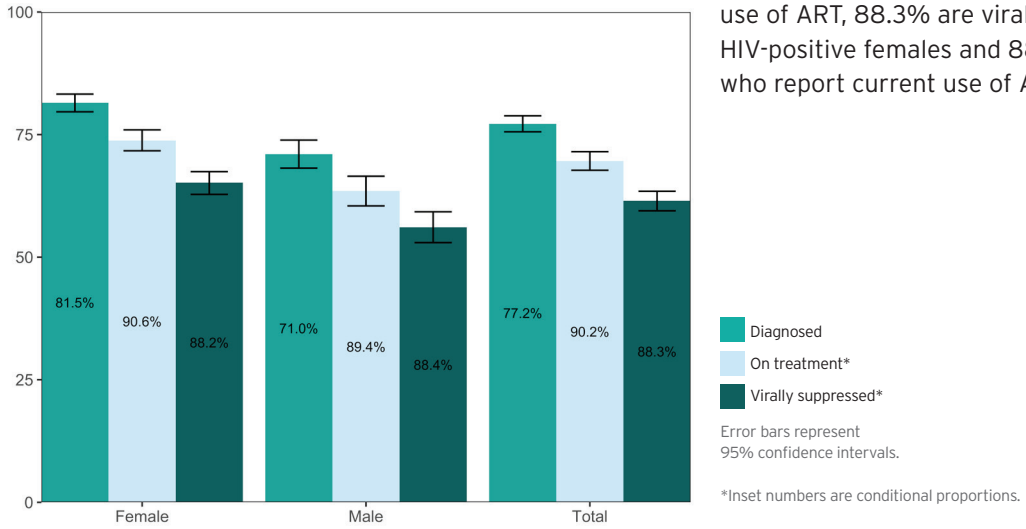
ACHIEVEMENT OF THE 90-90-90 GOALS AMONG HIV-POSITIVE ADULTS, BY SEX

90-90-90: An ambitious treatment target to help end the AIDS epidemic
By 2020, 90% 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 Lesotho, 77.2% of PLHIV ages 15 to 59 years report knowing their HIV status: 81.5% of HIV-positive females and 71.0% of HIV-positive males know their HIV status.

On Treatment
Among PLHIV ages 15 to 59 years who know their HIV status, 90.2% report current use of ART: 90.6% of HIV-positive females and 89.4% of HIV-positive males who know their HIV status report current use of ART.

Virally Suppressed
Among PLHIV ages 15 to 59 years who report current use of ART, 88.3% are virally suppressed: 88.2% of HIV-positive females and 88.4% of HIV-positive males who report current use of ART are virally suppressed.



MOBILITY AND MIGRATION

Participants who have lived outside Lesotho have a higher HIV prevalence (31.8%) compared with those who have not (23.6%). However, among participants who have ever lived outside of Lesotho, prevalence of HIV is comparable among those who have and have not lived outside of Lesotho within the last 12 months (29.8% versus 32.8%).

Characteristics	Females		Males		Total	
	Percentage HIV Positive	Unweighted Number	Percentage HIV Positive	Unweighted Number	Percentage HIV Positive	Unweighted Number
Ever lived outside Lesotho						
Yes	39.1	1,224	27.5	1,440	31.8	2,664
No	28.5	5,695	17.8	3,318	23.6	9,013
Outside Lesotho >1 month in last 12 months*						
Yes	39.6	339	23.0	309	29.8	648
No	40.4	700	28.9	966	32.8	1,666

* Among those who have lived outside Lesotho.

VIOLENCE IN LESOTHO

HIV prevalence among women who have been physically forced to have sex (39.1%) is higher than in those who have not been physically forced (30.9%).

Characteristics	Females	
	Percentage HIV Positive	Number
Ever physically forced to have sex		
15-24		
No	11.9	1,337
Yes	18.6	154
25-59		
No	39.1	3,112
Yes	47.2	368
15-59		
No	30.9	4,449
Yes	39.1	522

CONCLUSIONS

- Lesotho has made substantial progress toward the UNAIDS targets of 90-90-90 (at 77-90-88).
- Continued expansion of HIV testing and treatment, especially for young men and women, will be essential to achieve epidemic control by 2020.
- HIV prevalence in Lesotho remains high, with significant disparity between women and men. Pediatric HIV prevalence, measured here for the first time in a national survey, also remains among the highest in the world.
- Subsequent reports will present results on coverage of prevention of mother to child transmission (PMTCT) programs, HIV knowledge, HIV risk factors, and HIV treatment coverage.

RESPONSE RATES AND HIV-TESTING METHODS

Of 9,403 eligible households, 93% completed a household interview. Of 7,893 eligible women and 6,135 eligible men ages 15 to 59 years, 91% of women and 88% of men were interviewed and tested for HIV. Of 4,870 eligible children ages 0 to 14 years, 80% were tested for HIV.

HIV prevalence testing was conducted in each household using a serological rapid diagnostic testing algorithm based on Lesotho's national guidelines, with laboratory confirmation of seropositive samples using a Geenius HIV 1/2 supplemental assay (Bio-Rad). A laboratory-based incidence testing algorithm (HIV-1 LAg [limiting antigen] 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 World Health Organization (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=0.00. Survey weights are utilized for all estimates.

The PHIA Project is a multicountry 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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