CÔTE D'IVOIRE POPULATION-BASED HIV IMPACT ASSESSMENT
CIPHIA 2017-2018

CIPHIA

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The Côte d'Ivoire Population-based HIV Impact Assessment (CIPHIA), a household-based national survey, was conducted between August 2017 and March 2018 in order to measure the status of Côte d'Ivoire's national HIV response. CIPHIA 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 Cote d'Ivoire to measure national HIV incidence and viral load suppression among people 15 to 64 years of age, and to estimate the size of specific populations that are key to the epidemic and response at the national level. The results provide information on national and subnational progress toward control of the HIV epidemic.

CIPHIA was led by the Government of Côte d'Ivoire through the Ministry of Health and Public Hygiene (MSHP), 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 Institute of Statistics (INS).

KEY FINDINGS

HIV Indicator	Female	95% CI	Male	95% CI	Total	95% CI
Prevalence (%)						
15-49 years	3.6	3.0-4.1	1.4	1.0-1.8	2.5	2.1-2.8
15-64 years	4.1	3.6-4.6	1.7	1.3-2.1	2.9	2.5-3.2
Viral load suppression (%)						
15-49 years	38.4	29.2-47.7	20.1	11.9-28.3	33.0	25.6-40.3
15-64 years	45.9	37.2-54.5	27.7	19.0-36.5	40.2	33.2-47.2

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.

HIV prevalence refers to prevalence of HIV-1 and HIV-1/2.

Viral load suppression is among only those people living with HIV-1 or HIV-1/2.
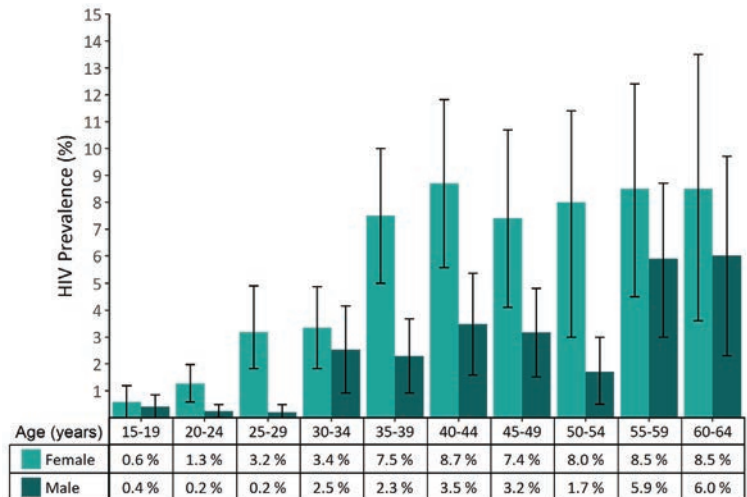
Prevalence of HIV among adults ages 15-64 years in Côte d'Ivoire is 2.9%: 4.1% among females and 1.7% among males. This corresponds to approximately 390,000 people living with HIV (PLHIV) ages 15-64 years in Côte d'Ivoire.

Prevalence of viral load suppression (VLS) among HIV-positive adults ages 15-64 years in Côte d'Ivoire is 40.2 %: 45.9% among females and 27.7% among males.

HIV PREVALENCE, BY AGE AND SEX

Among adults ages 15-64 years, HIV prevalence peaks at 8.7% for females ages 40-44 years and at 5.9% and 6.0% for males ages 55-59 and 60-64 years respectively. HIV prevalence is higher among women than men in several age groups, including 20-24, 25-29, 35-39, 40-44 and 50-54 years old. This difference is most pronounced among 25-29 year olds for whom HIV prevalence is approximately sixteen times higher for females (3.2%) than for males (0.2%).
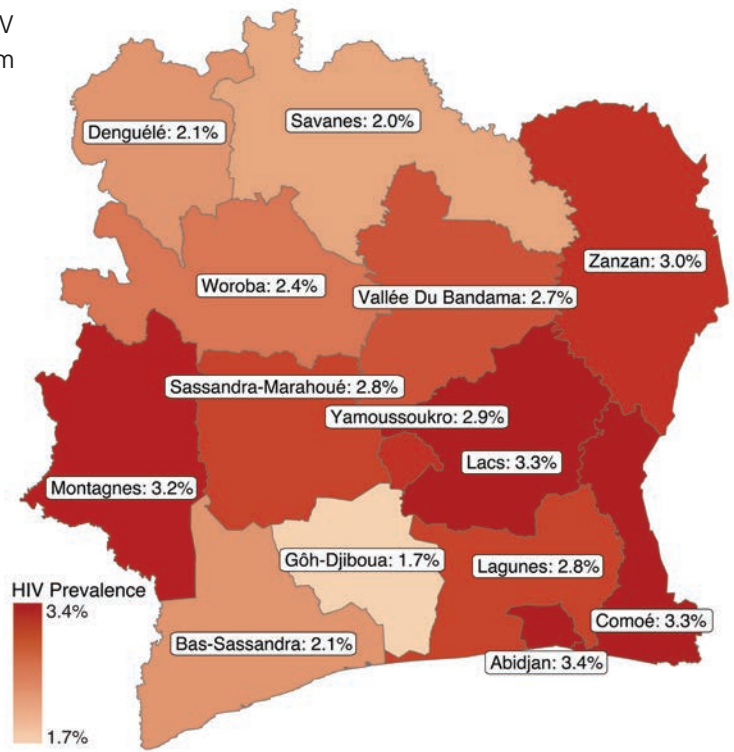
Error bars represent 95% confidence intervals.
HIV prevalence refers to prevalence of HIV-1 and HIV-2.

Age (years)	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Female	0.6 %	1.3 %	3.2 %	3.4 %	7.5 %	8.7 %	7.4 %	8.0 %	8.5 %	8.5 %
Male	0.4 %	0.2 %	0.2 %	2.5 %	2.3 %	3.5 %	3.2 %	1.7 %	5.9 %	6.0 %

HIV PREVALENCE AMONG ADULTS, BY REGION

Among adults ages 15-64 years, prevalence of HIV varies geographically across Côte d'Ivoire, ranging from 1.7 percent in Gôh-Djiboua to 3.4 percent in Abidjan.

Region	HIV Prevalence (%)	95% CI
Abidjan	3.4	2.7-4.1
Yamoussoukro	2.9	2.0-3.7
Bas-Sassandra	2.1	1.3-2.9
Comoé	3.3	1.4-5.1
Denguélé	2.1	0.3-3.9
Gôh-Djiboua	1.7	0.6-2.8
Lacs	3.3	1.3-5.3
Lagunes	2.8	0.7-4.8
Montagnes	3.2	1.8-4.6
Sassandra-Marahoué	2.8	1.7-3.9
Savanes	2.0	0.9-3.2
Vallée Du Bandama	2.7	1.8-3.5
Woroban	2.4	0.8-4.0
Zanzan	3.0	2.0-4.1

Denguélé: 2.1%
Savanes: 2.0%
Zanzan: 3.0%
Woroba: 2.4%
Vallée Du Bandama: 2.7%
Sassandra-Marahoué: 2.8%
Yamoussoukro: 2.9%
Lacs: 3.3%
Montagnes: 3.2%
Gôh-Djiboua: 1.7%
Lagunes: 2.8%
Comoé: 3.3%
Bas-Sassandra: 2.1%
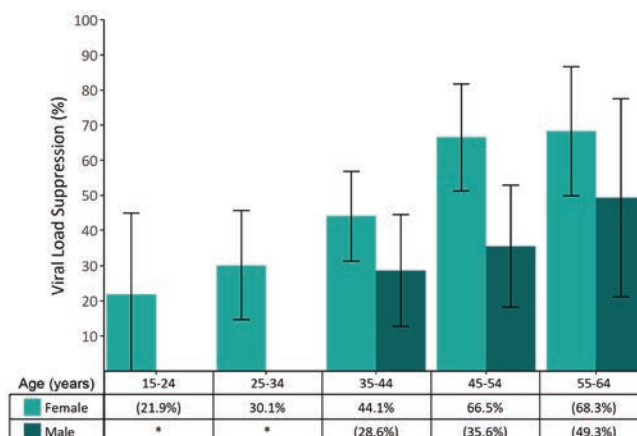Abidjan: 3.4%

HIV Prevalence
3.4%
1.7%

HIV prevalence refers to prevalence of HIV-1 and HIV-2.

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

Prevalence of VLS among people living with HIV in Côte d'Ivoire peaks among older adults at 68.3% among females and 49.3% among males ages 55-64 years. In contrast, prevalence of VLS is 21.9% among females ages 15-24 years.

Estimates for males ages 15-24 and 25-34 are based on a very small number (less than 25) unweighted cases and have been suppressed. Estimates in parentheses are based on a small number of unweighted cases (25-49) and should be interpreted with caution.

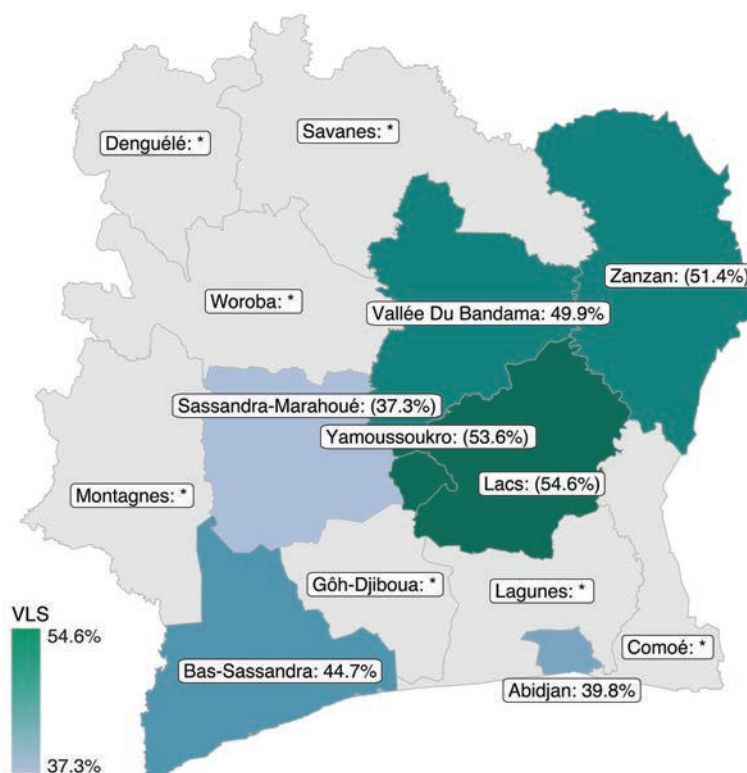Viral load suppression is among only those people living with HIV-1 or HIV-1/2.

Error bars represent 95% confidence intervals.

Age (years)	15-24	25-34	35-44	45-54	55-64
Female	(21.9%)	30.1%	44.1%	66.5%	(68.3%)
Male	*	*	(28.6%)	(35.6%)	(49.3%)

Among HIV-positive adults ages 15-64 years, prevalence of VLS ranges from 37.3% in Sassandra-Marahoué to 54.6% in Lacs.

Region	VLS Prevalence (%)	95% CI
Abidjan	39.8	24.5-55.1
Yamoussoukro	(53.6)	36.6-70.5
Bas-Sassandra	44.7	26.9-62.5
Comoe	*	
Denguele	*	
Goh-Djiboua	*	
Lacs	(54.6)	36.3-73.0
Lagunes	*	
Montagnes	*	
Sassandra-Marahoue	(37.3)	10.3-64.3
Savanes	*	
Vallee Du Bandama	49.9	33.0-66.9
Woroban	*	
Zanzan	(51.4)	34.5-68.2

Denguélé: * Savanes: * Woroba: * Zanzan: (51.4%) Vallée Du Bandama: 49.9% Sassandra-Marahoué: (37.3%) Yamoussoukro: (53.6%) Lacs: (54.6%) Montagnes: * Gôh-Djiboua: * Lagunes: * Comoé: * Bas-Sassandra: 44.7% Abidjan: 39.8%

VLS
54.6%
37.3%

Estimates based on less than 25 observations have been suppressed.
Estimates based on 25-49 observations are included in parentheses and should be interpreted with caution.
Viral load suppression is among only those people living with HIV-1 or HIV-1/2.

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 Côte d'Ivoire, 37.2% of PLHIV ages 15-64 years report knowing their HIV status: 43.2% of HIV-positive females and 24.2% of HIV-positive males know their HIV status.

On Treatment
Among PLHIV ages 15-64 years who know their HIV status, 88.1% self-report current use of ART: 92.6% of HIV-positive females and 70.7% of HIV-positive males who know their HIV status self-report current use of ART.

Virally Suppressed
Among PLHIV ages 15-64 years who self-report current use of ART, 75.9% are virally suppressed: 77.9% of HIV-positive females and 65.2% of HIV-positive males who self-report current use of ART are virally suppressed.

Diagnosed
On Treatment*
Virally Suppressed*
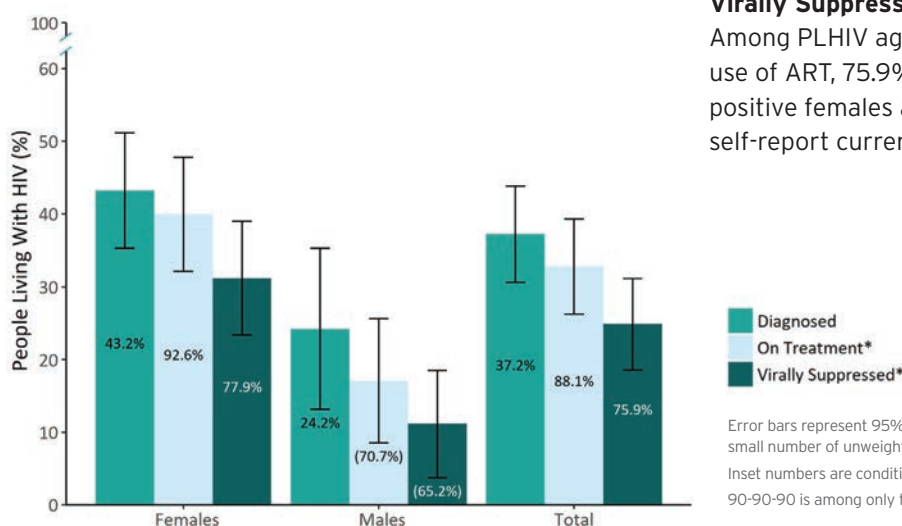
Error bars represent 95% confidence intervals. Estimates in parentheses are based on a small number of unweighted cases (25-49) and should be interpreted with caution.
Inset numbers are conditional proportions. See text above.
90-90-90 is among only those people living with HIV-1 or HIV-1/2.

CONCLUSIONS

- Progress toward 90-90-90 among adults ages 15-64 years (37-88-76) indicates progress in scaling up ART among known positives. However, there is substantial room for improvement in diagnosis, particularly for men.

- VLS remains low among men and younger adults.

- Upcoming reports will include estimates of HIV Incidence, pediatric prevalence and the size of key populations.

RESPONSE RATES AND HIV TESTING METHODS

Of 10,510 eligible households, 85.5% completed a household interview. Of 10,913 eligible women and 10,399 eligible men ages 15-64 years, 81.8% of women and 85.5% of men were interviewed and tested for HIV.

HIV prevalence testing was conducted in each household using a serological rapid diagnostic testing algorithm based on Côte d'Ivoire's national guidelines, with laboratory confirmation of seropositive samples using a BioRad Geenius™ HIV 1/2 Supplemental Assay. 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.