SUMMARY SHEET | FEBRUARY 2022

HAITI
POPULATION-BASED HIV IMPACT ASSESSMENT
HAPHIA 2020

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The Haiti Population-based HIV Impact Assessment (HAPHIA) was a household-based national survey among adults (defined as individuals aged 15-64 years) conducted between July 2019 and November 2020.[1] HAPHIA offered HIV counseling and testing with return of results to participants and collected information about uptake of HIV care and treatment services.

HAPHIA was the first survey in Haiti to estimate national HIV incidence, and national and subnational prevalence of HIV and viral load suppression (VLS), defined as HIV RNA <1,000 copies per milliliter (mL). The results of the survey provide critical information about national and subnational progress toward control of the HIV epidemic.

HAPHIA was led by the Government of Haiti through the Ministry of Public Health and Population (MSPP), the Infectious and Communicable Diseases Control Unit (UCMIT), the National AIDS Control Program (PNLS), and the National Public Health Laboratory (LNSP). 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).

HAPHIA was implemented by ICAP of Columbia University in collaboration with the Government of Haiti, non-governmental partners and other partners including the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Haitian Institute of Statistics and Computer Science (IHIS), the Haitian Institute for Children (IHE), the Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO/IMIS), the National Bioethics Committee (CNB), local government authorities, and regional and referral hospitals. The Government of Haiti, local civil society organizations, and international development partners participated in the Technical Working Group to provide input on survey design, planning, implementation, and results dissemination. The duration of the fieldwork was longer than expected and took place over three periods: July 2019 to September 2019, January 2020 to March 2020, and October 2020 to November 2020. The first pause was due to security unrest; the second pause due to the state of emergency period for the COVID-19 pandemic.

KEY FINDINGS

HIV Indicator	Women	95% CI	Men	95% CI	Total	95% CI
Annual incidence (%)						
15-49 years	0.15	0.01-0.29	0.09	0.00-0.22	0.12	0.03-0.22
15-64 years	0.14	0.02-0.26	0.08	0.00-0.19	0.11	0.03-0.20
Prevalence (%)						
15-49 years	2.1	1.8-2.4	1.2	0.9-1.6	1.7	1.5-2.0
15-64 years	2.2	1.9-2.5	1.4	1.1-1.7	1.8	1.6-2.0
Viral load suppression (%)						
15-49 years	44.0	36.0-51.9	39.6	27.7-51.4	42.6	35.2-49.9
15-64 years	45.5	38.3-52.7	42.2	31.5-52.8	44.4	37.8-51.0

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

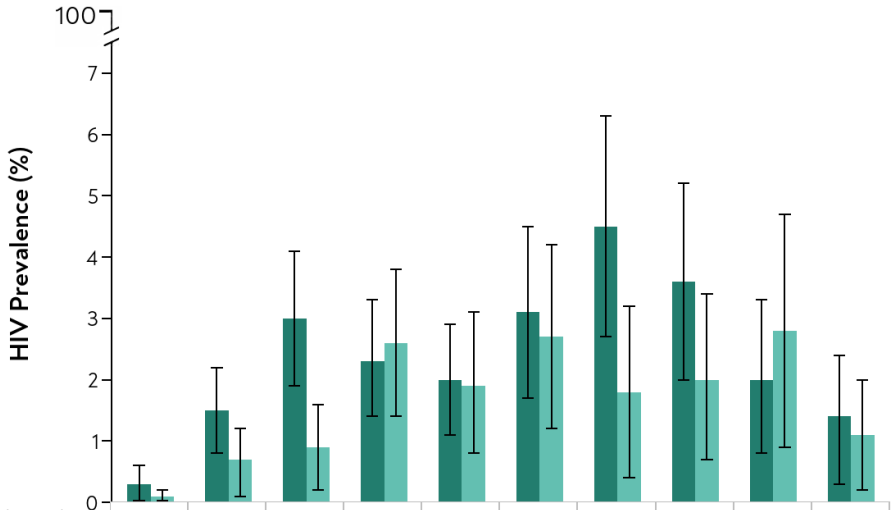
Annual incidence of HIV among adults (ages 15-64 years) in Haiti was 0.11%: 0.14% among women and 0.08% among men.
Prevalence of HIV among adults in Haiti was 1.8%: 2.2% among women and 1.4% among men.
Prevalence of VLS among all adults living with HIV in Haiti was 44.4%: 45.5% among women and 42.2% among men. Note that these estimates of VLS prevalence are among all adults living with HIV, regardless of their knowledge of HIV status or use of antiretroviral therapy (ART).

[1] Fieldwork took place over three time periods: July 2019 to September 2019; January 2020 to March 2020; October 2020 to November 2020. The first pause was due to unrest, the second due to the COVID-19 pandemic. Please use these summary results in line with the content of the final full report of HAPHIA.

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

This project is supported by the US President's Emergency Plan for AIDS Relief (PEPFAR) through CDC under the terms of cooperative agreement #U2GGH001226. The findings and conclusions are those of the authors and do not necessarily represent the official position of the funding agencies. The results presented here should be considered preliminary and are subject to change.

HIV PREVALENCE AMONG ADULTS



Ages (years)	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Women	0.3%	1.5%	3.0%	2.3%	2.0%	3.1%	4.5%	3.6%	2.0%	1.4%
Men	0.1%	0.7%	0.9%	2.6%	1.9%	2.7%	1.8%	2.0%	2.8%	1.1%

Error bars represent 95% CIs.

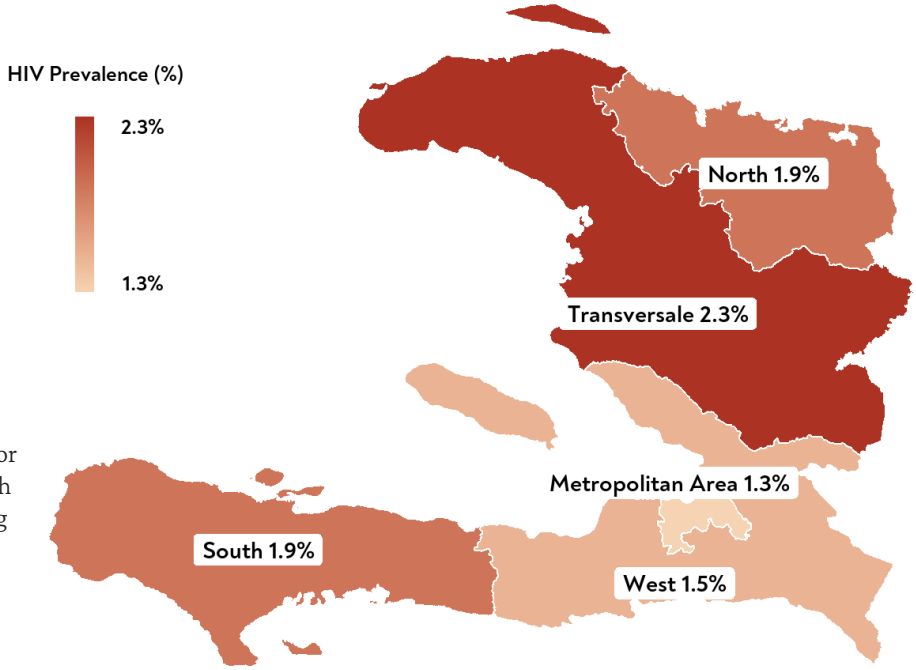
HIV PREVALENCE, by AGE and SEX

Among adults (ages 15-64 years), HIV prevalence ranged from 0.3% for older adolescent girls aged 15-19 years to 4.5% for women aged 45-49 years, and from 0.1% for older adolescent boys aged 15-19 years to 2.8% for men aged 55-59 years. HIV prevalence was markedly higher among women aged 25-29 years than men in the same age group. Note that many sex- and age-group specific estimates should be interpreted with caution due to wide confidence intervals.

HIV PREVALENCE, by REGION

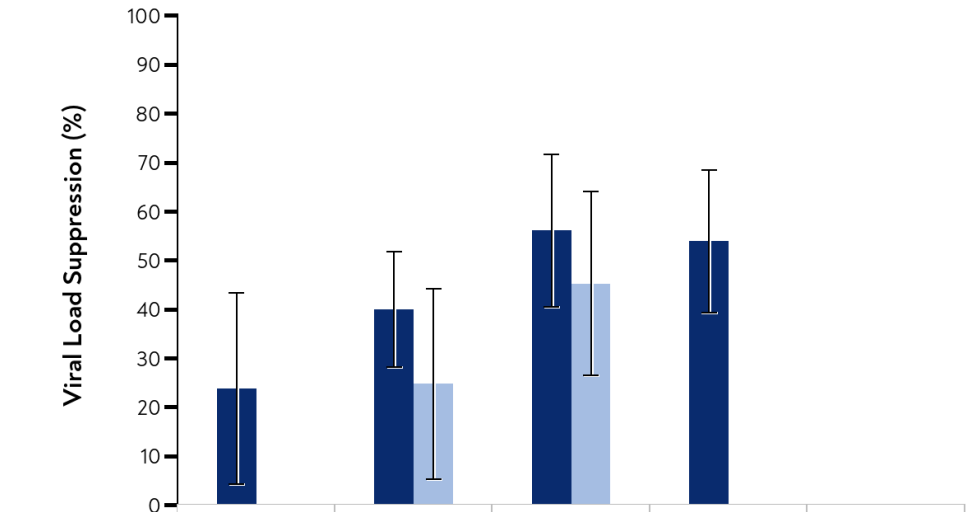
Among adults, HIV prevalence varied by region ranging from 1.3% in the Metropolitan Area of Port-au-Prince to 2.3% in Transversale region.

Region	HIV Prevalence (%)	95% CI
North	1.9	1.4-2.5
South	1.9	1.4-2.4
Transversale	2.3	1.8-2.9
West	1.5	1.1-1.9
Metropolitan Area	1.3	0.9-1.8



Note that the subnational geographic regions (or strata) of the study were North (including North and North-East departments), South (including South, Nippes, and Grand-Anse departments), Transversale (including Artibonite, Centre, and North-Ouest departments), West (West department [excluding Port-au-Prince], and South-east department), and the Metropolitan Area of Port-au-Prince.

VIRAL LOAD SUPPRESSION AMONG ADULTS LIVING WITH HIV



Ages (years)	15-24	25-34	35-44	45-54	55-64
Women	(23.8%)	39.9%	56.1%	53.9%	*
Men	*	(24.7%)	(45.2%)	*	*

Error bars represent 95% CIs.
Estimates based on a denominator less than 25 have been suppressed with an asterisk.
Estimates based on a denominator between 25 and 49 are included in parentheses and should be interpreted with caution.

VIRAL LOAD SUPPRESSION, by AGE and SEX

Among adults (ages 15-64 years) living with HIV in Haiti, the prevalence of VLS ranged from 23.8% among older adolescent girls and young women (OAGYW) aged 15-24 years to 56.1% among women aged 35-44 years. The estimate among OAGYW is based on a denominator between 25 and 49 and should be interpreted with caution. VLS prevalence ranged from 24.7% among men aged 25-34 years to 45.2% among men aged 35-44 years; however, these estimates are also based on a small number of observations and should be interpreted with caution.

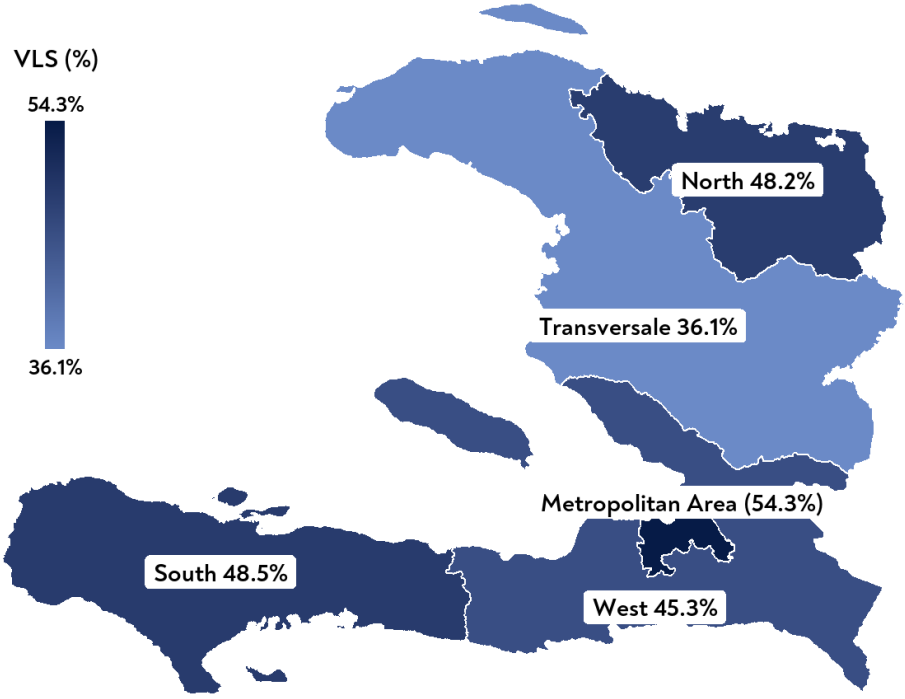
VIRAL LOAD SUPPRESSION AMONG ADULTS LIVING WITH HIV, by REGION

Among adults living with HIV, prevalence of VLS ranged from 36.1% in Transversale region to 54.3% in the Metropolitan Area of Port-au-Prince. The estimate in the Metropolitan Area is based on a denominator between 25 and 49 and should be interpreted with caution.

Region	VLS (%)	95% CI
North	48.2	35.3-61.1
South	48.5	37.2-59.8
Transversale	36.1	25.0-47.2
West	45.3	32.4-58.2
Metropolitan Area	(54.3)	(30.7-78.0)

VLS=Viral Load Suppression.

Estimates based on a denominator between 25 and 49 are included in parentheses and should be interpreted with caution.

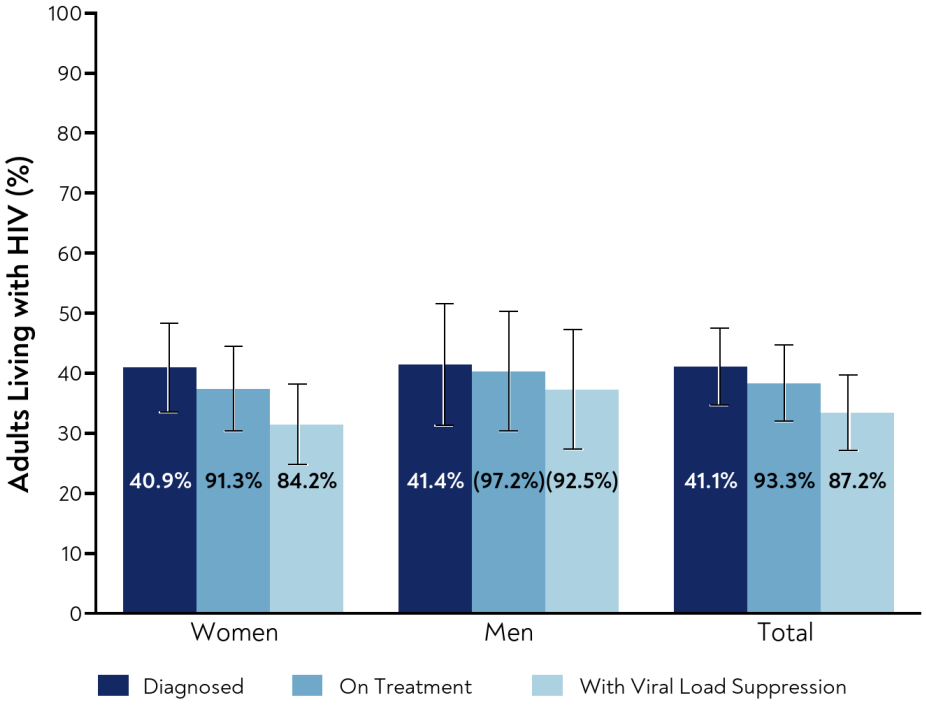


ACHIEVEMENT OF THE 90-90-90 TARGETS AMONG ADULTS LIVING WITH HIV

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

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, by SEX



Percentages shown (inset) 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.
Estimates based on a denominator between 25 and 49 are included in parentheses and should be interpreted with caution.

Diagnosed: In Haiti, 41.1% of adults (ages 15-64 years) living with HIV were aware of their HIV status: 40.9% of women and 41.4% of men. 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 living with HIV who were aware of their status, 93.3% were on ART: 91.3% of women and 97.2% of men. Note that the estimate among men is based on a denominator between 25 and 49 and should be interpreted with caution. 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, 87.2% had VLS: 84.2% of women and 92.5% of men. Note that the estimate among men is based on a denominator between 25 and 49 and should be interpreted with caution.

CONCLUSIONS

- HIV prevalence and treatment varied by gender. Among adults aged 15-64 years, prevalence was higher among women at 2.2% than among men at 1.4%; however, diagnosis, treatment and viral load suppression were similar among men and women.
- The national HIV incidence was 0.08% among men and 0.14% among women aged 15-64 years.
- With 59% of people living with HIV unaware of their status (based on 90-90-90 estimates), there is a pronounced need for campaigns to strengthen the uptake of HIV testing services in Haiti and increase awareness of HIV status.
- Among those who were aware of their HIV-positive status, the program surpassed the second 90 target for people living with HIV on ART, and among those on ART, the country was close to achieving the third 90 target for the prevalence of VLS.
- However, based on the data collected, only one-third of all people living with HIV in Haiti achieved VLS with ART use, well below the overall 90-90-90 target of 73% (90*90*90). (Note that this estimate is calculated differently than the proportion with VLS irrespective of ART use, which was 44.4%).

RESPONSE RATES AND HIV TESTING METHODS

Of 10,171 eligible households, 92.4% completed a household interview. Among 21,586 eligible adults aged 15-64 years (11,819 women and 9,767 men), 82.1% were interviewed and tested for HIV (84.7% of women; 78.9% of men). The overall response rate for adults was 75.9% (78.3% of women; 73.0% of men). [2]

HIV testing was conducted in each household using an adapted serological rapid diagnostic testing algorithm based on Haitian national laboratory 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 ARVs (efavirenz, nevirapine, lopinavir, 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 World Health Organization Incidence Working Group and Consortium for Evaluation and Performance of Incidence Assays. Survey weights were utilized for all estimates.

[2] Security-related concerns required several special measures for survey implementation, such as exclusion of certain areas, related to the planned sampling of parts of the Metropolitan Area of Port-au-Prince.