



# UGANDA REFUGEE POPULATION-BASED HIV IMPACT ASSESSMENT

## RUPHIA 2021



The Uganda Refugee Population-based HIV Impact Assessment (RUPHIA 2021) was a household-based survey to measure the impact of the HIV response among adults (defined as individuals aged 15 years and older) living in the refugee settlements of Uganda.\* Conducted from October to early December 2021, RUPHIA 2021 offered HIV counseling and testing with return of results and collected information about uptake of HIV care and treatment services. This was the first survey among the adult population living in the refugee settlements in Uganda to estimate the prevalence of HIV and the prevalence of viral load suppression (VLS), defined as HIV RNA <1,000 copies per milliliter (mL), among adults living with HIV. The survey results provide critical information on the progress toward HIV epidemic control among these communities.

\* Refugee settlements in Uganda are located in the West Nile and Mid North regions, collectively referred to here as West Nile, and in Mid Western and South Western regions, collectively referred to as Western.

### KEY FINDINGS

HIV Indicator	Women	95% CI	Men	95% CI	Total	95% CI
<b>Prevalence (%)</b>						
15-49 years	1.7	1.0-2.5	0.9	0.1-1.7	1.3	0.7-2.0
15 years and older	1.8	1.0-2.7	1.1	0.3-1.8	1.5	0.8-2.1
<b>Viral Load Suppression (%)</b>						
15-49 years	(71.7)	(48.7-94.7)	*	*	(76.1)	(60.1-92.1)
15 years and older	(64.2)	(46.5-82.0)	*	*	(72.4)	(59.8-85.1)

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

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

Estimates based on a denominator less than 25 have been suppressed and are indicated by an asterisk.

Prevalence of HIV among adults aged 15 years and older living in Uganda's refugee settlements was 1.5%: 1.8% among women and 1.1% among men.

The prevalence of VLS among adults living with HIV in Uganda's refugee settlements was 72.4%.\* VLS was 64.2%\* among women but the estimate among men was suppressed because the denominator was below 25. Note, these estimates of VLS were among all adults living with HIV regardless of their knowledge of HIV status or use of antiretroviral therapy (ART).

\* This estimate was based on a denominator of between 25 and 49 participants and should be interpreted with caution.

### RESPONSE RATES AND HIV TESTING METHODS

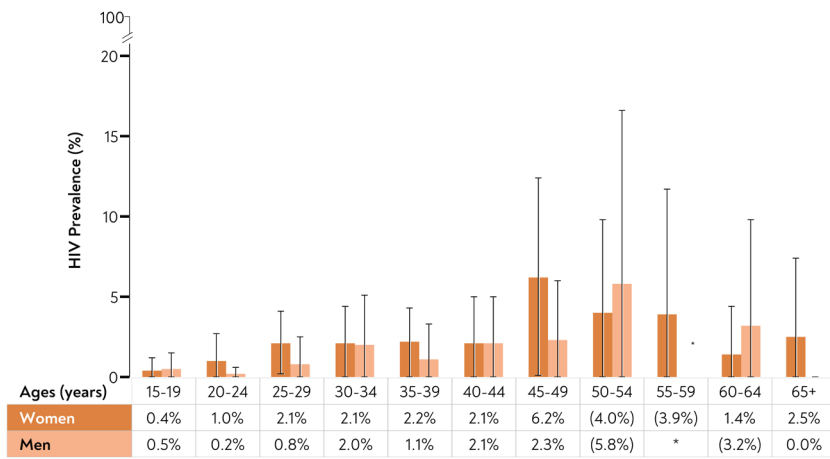
Of 1,250 eligible households, 93.4% completed a household interview. Among 2,999 eligible adults (1,824 women and 1,175 men), a total of 2,705 (1,705 women and 1,000 men) consented to participate and were interviewed and tested for HIV. The overall response rate for adults was 84.2%: 87.3% for women and 79.5% for men.

HIV testing was conducted in each household using a serological rapid diagnostic testing algorithm based on Uganda's national 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 selected antiretrovirals (ARVs) (efavirenz, dolutegravir, atazanavir, and lopinavir). Incidence estimation was not included in the survey. Survey weights were utilized for all estimates.

See [phia.icap.columbia.edu](https://phia.icap.columbia.edu) for more details.



## HIV PREVALENCE AMONG ADULTS



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

### HIV PREVALENCE, by AGE and SEX

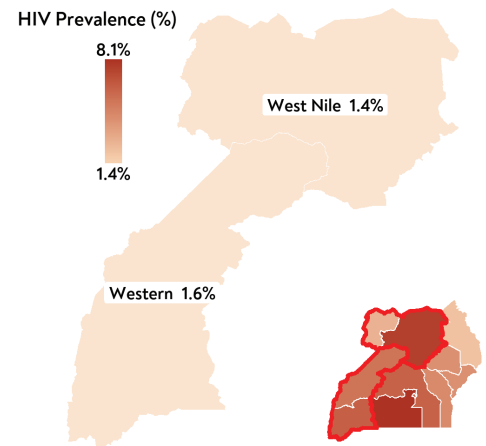
Among adults (ages 15 years and older) living in a refugee settlement, HIV prevalence ranged from 0.4% among older adolescent girls aged 15-19 years to 6.2% among women aged 45-49 years. HIV prevalence ranged from 0.0% among men aged 65 years and older to 5.8%\* among men aged 50-54 years.

\*This estimate was based on a denominator of between 25 and 49 participants and should be interpreted with caution.

### HIV PREVALENCE, by REGION

The refugee settlements in the survey are in the West Nile and Western regions. However, HIV prevalence among adults did not differ markedly by region (range 1.4%-1.6%).

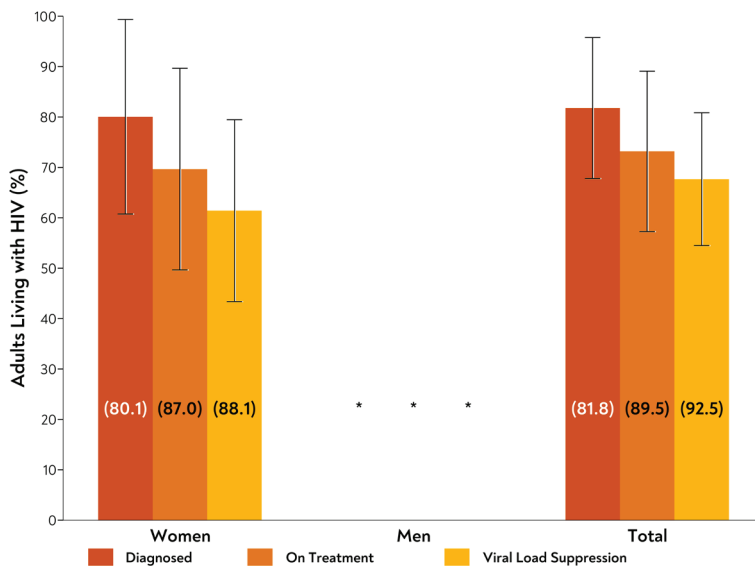
Region	HIV Prevalence (%)	95% CI
West Nile	1.4	0.5-2.4
Western	1.6	0.9-2.4



## ACHIEVEMENT OF THE 95-95-95 TARGETS AMONG ADULTS LIVING WITH HIV

### 95-95-95: Treatment targets to help end the HIV epidemic

The Joint United Nations Programme on HIV/AIDS (UNAIDS) set the 95-95-95 targets with the aim that by 2025, 95% of all people living with HIV will know their status; 95% of all people with diagnosed HIV infection will receive sustained ART; and 95% of all people receiving ART will have VLS.



Percentages shown in the graph refer to the conditional 95-95-95 targets described in the text above. The denominator for the second and third 95 is the value of the 95 preceding it. The heights of the bars represent the unconditional 95-95-95. For the unconditional percentages, the denominator for all three 95s is the overall population of adults living with HIV in refugee settlements in Uganda. Estimates based on a denominator between 25 and 49 are indicated by parentheses and should be interpreted with caution. Estimates based on a denominator less than 25 have been suppressed and are indicated with an asterisk. Error bars represent 95% CIs.

### ACHIEVEMENT OF THE 95-95-95 TARGETS, by SEX

**Diagnosed:** In Ugandan refugee settlements, 81.8%\* of adults living with HIV (aged 15 years and older) were aware of their HIV-positive status. Among the women, 80.1%\* were aware of their status, but estimates were suppressed among men because the denominator was below 25.† Individuals were classified as aware if they reported their HIV-positive status or had a detectable ARV in their blood.

**On Treatment:** Among adults living with HIV who were aware of their status, 89.5%\* were on ART: 87.0%\* among women. 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 on ART, 92.5%\* had VLS, including 88.1%\* among women on ART.

\* This estimate was based on denominators of between 25 and 49 participants and should be interpreted with caution.

† The denominator was below 25 among men, so all the 95-95-95 estimates were suppressed.

## CONCLUSIONS

- Among the adult refugees living with HIV in Uganda, progress toward the achievement of the first and second 95 targets (awareness of HIV status among adults living with HIV and the proportion on ART among those aware of their status) remains below 90% (the UNAIDS target for 2020). There is a need to improve case finding strategies and linkage to treatment within these communities. However, the response to treatment among those on ART is approaching the third 95 target for the prevalence of VLS. Ongoing surveillance to detect new HIV infections, coupled with the timely provision of treatment and combination prevention services to interrupt further transmission, could help these communities move closer to the UNAIDS goal of ending the AIDS epidemic by 2030.
- There were no differences in the prevalence of HIV by region. The adults living with HIV identified in the survey were too few to estimate regional prevalence of VLS or differences in the prevalence of VLS by sex.
- Although the small sample size of the survey limited the ability to generate estimates for some indicators usually reported in PHIA surveys, the first PHIA to be conducted among adults in refugee settlements of Uganda provides critical information for tailoring the HIV response to these communities. Further findings will be described in the upcoming Final Report.