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# POPULATION-BASED HIV IMPACT ASSESSMENTS AND VIRAL LOAD RESULTS: IMPLICATIONS FOR U=U

Gregory Chang[1,9], Trista Bingham[1], Katrina Sleeman[1], Irene Benech[1], Yen Duong[2], Jessica Justman[2], Suzue Saito[2], Melissa Metz[2], Anna Colletar Awor[3], Yohannes Mengistu[4], Judith Shang[5], Alice Maida[6], Nzali Kancheya[7], Optatus Malewo [8], Bharat Parekh[1]

[1]CDC, Atlanta, GA, USA, [2]ICAP at Columbia University, New York, NY, USA, [3]CDC, Kampala, Uganda, [4]CDC, Maseru, Lesotho, [5]CDC, Yaoundé, Cameroon, [6]CDC Lilongwe, Malawi, [7]CDC, Lusaka, Zambia, [8]CDC, Dar es Salaam, Tanzania, [9]Public Health Institute, Oakland, CA, USA

## Background

- Undetectable equals Untransmittable (U=U) conveys no risk of sexual transmission when people living with HIV (PLHIV) have a viral load (VL) less than 200 copies/mL of blood
- In order to detect a VL <200 cp/mL, plasma-based testing needs to be conducted, where many low-middle income countries do not have universal access to plasma-based VL testing

## Objectives

- Analyze proportion of individuals that are virally suppressed (<1000 cp/mL) and also had a VL <200 cp/mL
- Identify proportion of individuals that were virally suppressed and self-reported being on ART for >12 months that had a VL <200 cp/mL

## Methods

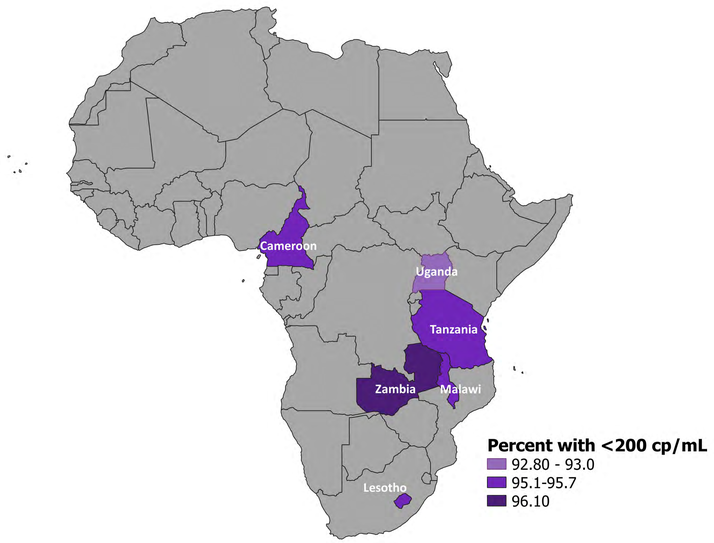
- Secondary analysis of nationally representative cross-sectional Population-based HIV Impact assessments (PHIA) completed between 2015-2018
- Inclusion criteria were adults aged 15-59 years old, tested HIV positive in the survey, on ART (either self-reported on treatment and/or had detectable antiretrovirals), and had plasma VL results

## Results

Table 1: Proportion of HIV-positive adults on ART that had viral load suppression (VLS) and proportion of VLS adults that self-reported being on ART for more than 12 months that had an undetectable VL (<200 cp/mL)

| Country | HIV-positive adults on ART with VLS<1000 % (95% CI) | HIV-positive adults reporting ≥ 12 mo ART with VLS<1000 and VL<200 cp/mL % (95% CI) |
|---|---|---|
| Uganda | 83.9 (81.6-86.2) | 94.4 (92.3-96.4) |
| Lesotho | 87.7 (86.1-89.3) | 96.7 (95.9-97.7) |
| Tanzania | 87.0 (84.2-89.8) | 97.4 (95.8-98.9) |
| Malawi | 91.2 (89.1-93.2) | 97.0 (95.6-98.4) |
| Zambia | 89.2 (87.3-91.1) | 97.4 (96.3-98.5) |
| Cameroon | 79.4 (74.1-84.7) | 97.8 (95.7-99.9) |
| Total | 86.9 (86.4-87.4) | 96.6 (96.2-96.9) |

Figure 1: Proportion of virally suppressed individuals (<1000 cp/mL) that also had an undetectable viral load (<200 cp/mL) in six PHIA countries




## Limitations

- Data is limited to those that were on ART, had VLS. and participants that agreed to interview and blood draw
- Limited to adults 15-59 and not children and adolescents
- Relied on self-report duration on ART

## Conclusion

- PHIA data demonstrate that a very high proportion of HIV-positive adults on ART that had VLS also had an undetectable VL (<200 cp/mL)
- Results suggest that U=U messaging may be suitable even in settings where plasma-based VL testing is not available
- With continued ART adherence and high-quality laboratory sample collection, systems to verify VLS, PHIA data supports that the scale-up of U=U messaging may be appropriate regardless of which VL testing platform

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