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DOI: 10.21106/ijma.374**ORIGINAL ARTICLE | HIV Viral Load****Detectable HIV-RNA Viral Load Among HIV-Infected Pregnant Women on Treatment in Northern Uganda****Agnes Napyo, MPH;<sup>1,2,3</sup> James K Tumwine, PhD;<sup>3</sup> David Mukunya, PhD;<sup>2</sup> Josephine Tumuhameye, MSc;<sup>2</sup> Anna Agnes Ojok Arach, MPH;<sup>3,4</sup> Grace Ndeezi, PhD;<sup>3</sup> Paul Waako, PhD;<sup>5</sup> Thorkild Tylleskär, PhD<sup>2</sup>**<sup>1</sup>Department of Public Health, Faculty of Health Sciences, Busitema University, 236 Tororo, Uganda; <sup>2</sup>Centre for International Health, University of Bergen, 7804 Bergen, Norway; <sup>3</sup>Department of Pediatrics and Child Health, Makerere University, 7062 Kampala, Uganda; <sup>4</sup>Department of Nursing, Lira University, 1035 Lira, Uganda; <sup>5</sup>Department of Pharmacology, Faculty of Health Sciences, Busitema University, 236 Tororo, Uganda<sup>✉</sup>Corresponding author email: [napyoagnes@gmail.com](mailto:napyoagnes@gmail.com)**ABSTRACT****Background / Objectives:** Detectable HIV viral load among HIV-infected pregnant women remains a public health threat. We aimed to determine factors associated with detectable viral load among HIV-infected pregnant women in Lira, Northern Uganda.**Methods:** We conducted a cross-sectional survey among 420 HIV-infected pregnant women attending Lira Regional Referral Hospital using a standardized questionnaire and combined it with viral load tests from Uganda National Health Laboratories. We conducted multivariable logistic regression while adjusting for confounders to determine the factors associated with detectable viral load and we report adjusted odds ratios and proportion of women with viral load less than 50 copies/ml and above 1000 copies, respectively.**Results:** The prevalence of detectable viral load (>50 copies/ml) was 30.7% (95%CI: 26.3% - 35.4%) and >1000 copies/ml was 8.1% (95% CI: 5.7% - 11.1%). Factors associated with detectable viral load were not belonging to the Lango ethnicity (adjusted odds ratio = 1.92, 95%CI: 1.05 - 3.90) and taking a second-line (protease inhibitor-based) regimen (adjusted odds ratio = 4.41, 95%CI: 1.13 - 17.22).**Conclusions and Global Health Implications:** HIV-infected pregnant women likely to have detectable viral load included those taking a protease inhibitor-based regimen and those who were not natives of Lira. We recommend intensified clinical and psychosocial monitoring for medication compliance among HIV-infected pregnant women that are likely to have a detectable viral load to significantly lower the risk of vertical transmission of HIV in Lira specifically those taking a protease inhibitor-based regimen and those who are non-natives to the study setting. Much as the third 90% of the global UNAIDS 90-90-90 target has been achieved, the national implementation of PMTCT guidelines should be tailored to its contextual needs.**Key words:** • HIV • Women • Pregnancy • Pregnant women • Viral load • Viral suppression • PMTCT • Antiretroviral therapy • Uganda

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