Depot medroxyprogesterone acetate (DMPA) use among HIV-1 infected women may increase transmission by increasing plasma and genital HIV-1 RNA shedding. We investigated associations between DMPA use and HIV-1 RNA in plasma and cervical secretions. 102 women initiated ART, contributing 925 follow-up visits over a median of 34 months. Compared to visits with no hormonal contraception exposure, DMPA exposure did not increase detection of plasma (adjusted odds ratio (AOR) 0.81, 95% CI 0.47-1.39) or cervical HIV-1 RNA (AOR 1.41, 95% CI 0.54-3.67). Our results suggest that DMPA is unlikely to increase infectivity in HIV-positive women who are adherent to effective ART.