Project Brief: PrEP SMART

Title	**PrEP SMART: Evaluation of stepped PrEP adherence support for young South African women using a SMART design**
Primary Objectives	To evaluate the proportion of young South African women who adhere well to PrEP with regular clinic visits and mHealth interventions alone, the proportion of women who adhere well to PrEP with intensified interventions (i.e. monthly visits and special issue counselling or quarterly visits with drug-level feedback about recent adherence), and the optimal sequence of intensifying adherence support among young women who have low adherence after the first two months of use.
Study Design	Sequential, Multiple Assignment, Randomized, Trial (SMART) design, whereby participants are initially randomized to either two-way SMS or WhatsApp groups and then those who need more intensive PrEP adherence support are re-randomized to monthly counseling or drug-level feedback based on PrEP drug levels. Qualitative data collection conducted with a purposive sample of approximately 25 responders and non-responders after their 2-, 6-, and 12-month or exit study visits.
Study population	HIV-uninfected women ages 18-25 in Johannesburg, South Africa.
Intervention	Eligible women who accept open-label daily oral PrEP will be enrolled and randomized to SOC adherence support (brief counselling) and either WhatsApp groups or weekly 2-way SMS messages. These mHealth interventions are aimed at increasing PrEP adherence during follow-up by providing peer support for PrEP adherence (WhatsApp groups), clinical support to manage side effects and address adherence issues (SMS messages), and reminders about daily PrEP pill-taking (both WhatsApp groups and SMS messages). Follow-up visits will occur monthly for 3 months and, in both groups, tenofovir drug levels at month 2 will be used as an objective measure of adherence to determine whether they have achieved high adherence based on their initial randomization. Women with high adherence (i.e., TFV-DP >/=500 fmol/punch from DBS, 'responders') will continue with the adherence support to which they were initially randomized and will attend quarterly visits for a total of 12 months of follow-up. 'Non-responders' will be identified based on TFV-DP <500 fmol/punch or missed drug refills at their Month 1 or 2 study visits and will continue initial randomization (WhatsApp or two-way SMS) plus be randomized to either more intensive adherence support – continued monthly visits with adherence and problem-focused counseling at months 3-8 or quarterly visits between months 3-9 with feedback about adherence based on drug levels at months 2 and 6.
Follow-up/Duration	Approximately 48 months, including submissions to Institutional Review Boards (IRBs) and the South African Health Products Regulatory Authority (SAHPRA), recruitment, and 12 months of follow-up per participant.
Other Partners & Collaborators	International Clinical Research Center (ICRC) University of Washington
Sponsors/Donors	US National Institute of Mental Health (NIMH) US National Institutes of Health (NIH)
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