Plasma EFV and TFV vs DBS TFV-DP in PLWH: Supplementary Digital Content
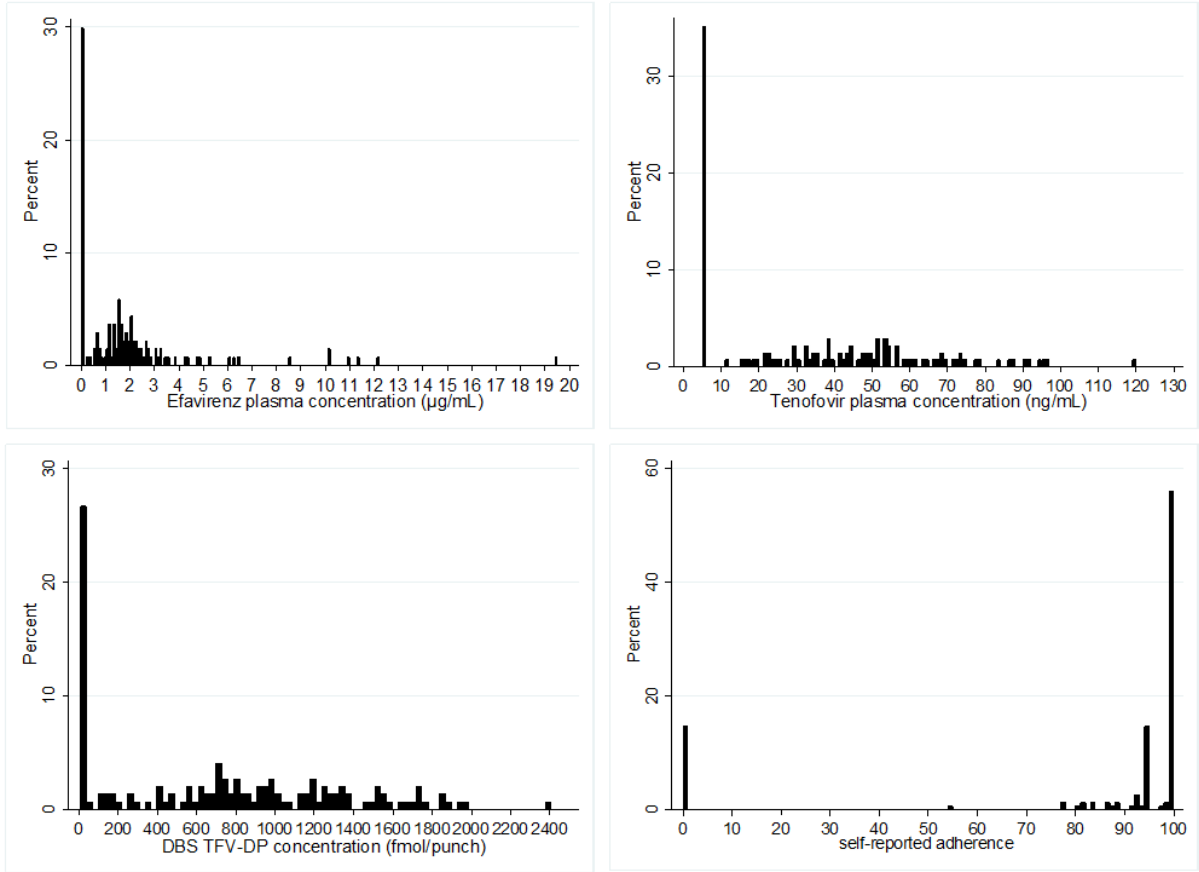
S table 1. Three-item self-reported adherence scale.

Item 1:
In the last 30 days, on how many days did you miss at least one dose of any of your HIV medicines? *Range 0-30*
Item 2:
In the last 30 days, how good a job did you do at taking your HIV medicines in the way that you were supposed to? *Range "very poor" to "excellent" (1-6)*
Item 3:
In the last 30 days how often did you take your HIV medicines in the way that you were supposed to? *Range "never" to "always" (1-6)*
Combined three-item scale:
An aggregated score based on re-coding each item with equal weighting to create a score ranging from 0 to 100 (100 represents the best possible self-reported adherence)

S figure 1. Histograms of a) plasma efavirenz, b) plasma tenofovir, c) tenofovir-diphosphate (TFV-DP) concentrations in dried blood spots (DBS), d) self-reported adherence in the past 30 days (three-item scale score).
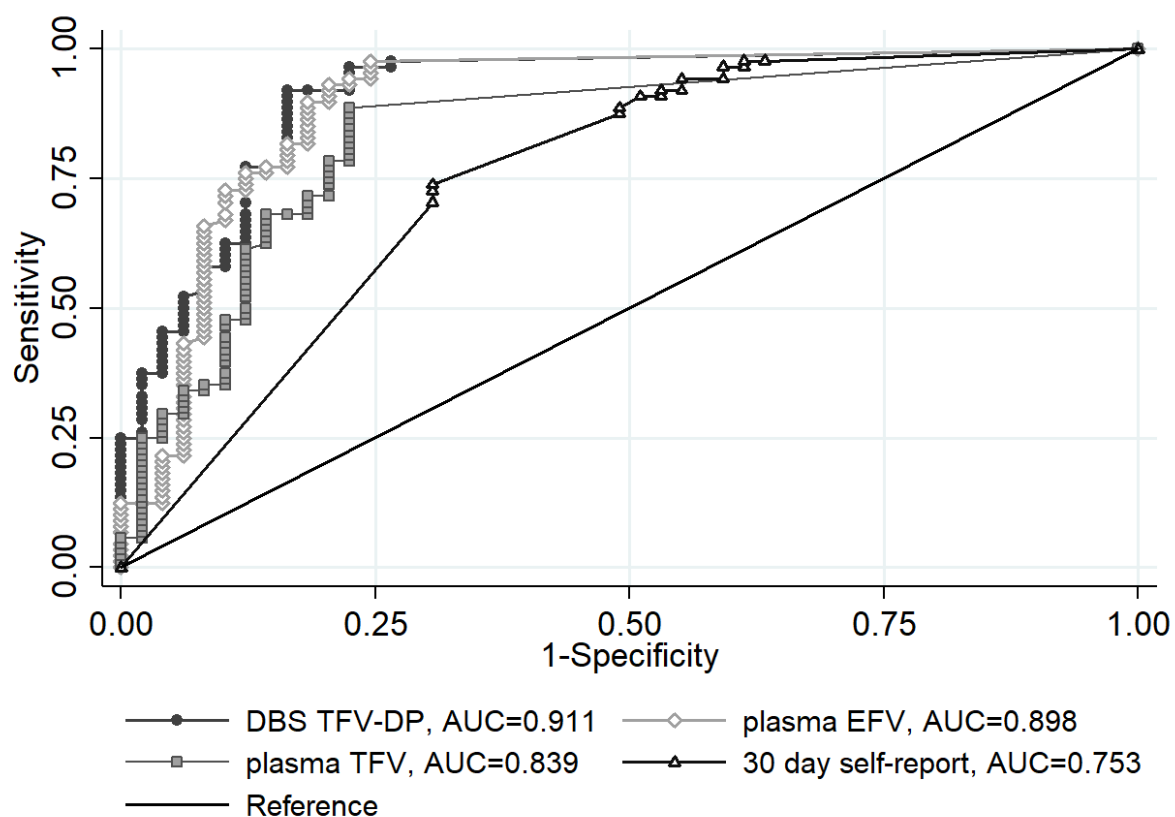
S figure 2. Unadjusted area under the receiver operating characteristics (ROC) curves of DBS TFV-DP (grey), plasma EFV (green), plasma TFV (maroon), and self-reported adherence (blue) to predict viral suppression; n=137.

S table 2. Characteristics of DBS TFV-DP thresholds restricted to women who report taking ART in the last 30 days (n=87). Odds ratios (OR) predicting viral load <50, <400 and <1000 copies/mL are presented.

TFV-DP threshold (approximate doses per week[1])	<350 (<2)	350-699 (2-3)	700-1249 (4-6)	≥1250 (7)
Total number of women	27	19	41	30
Median viral load $\log_{10}$ copies/mL (IQR)	3.7 (2.5-4.6)	1.3 (1.3-1.3)	1.3 (1.3-1.3)	1.3 (1.3-1.3)
Median viral load copies/mL (IQR)	4884 (282-38325)	20 (20-20)	20 (20-20)	20 (20-20)
Viral load <50 copies/mL				
Viral load <50 copies/mL, n (%)	5 (19)	16 (84)	36 (88)	29 (97)
OR (95% CI)	Ref	23 (5-113)	32 (8-122)	128 (14-1172)
aOR2 (95% CI)	Ref	28 (5-142)	34 (8-139)	135 (14-1268)
Viral load <400 copies/mL				
Viral load <400 copies/mL, n (%)	7 (26)	17 (89)	39 (95)	30 (100)
OR (95% CI)	Ref	24 (4-133)	56 (11-293)	Omitted
aOR[2] (95% CI)	Ref	35 (5-230)	74 (12-462)	Omitted
Viral load <1000 copies/mL				
Viral load <1000 copies/mL, n (%)	8 (30)	17 (89)	39 (95)	30 (100)
OR (95% CI)	Ref	20 (4-109)	46 (9-240)	Omitted
aOR[2] (95% CI)	Ref	29 (5-178)	59 (10-360)	Omitted

[1]As previously described by Castillo-Mancilla *et al* (CID, 2018)

[2]Adjusted for age and duration on ART

S table 3. Univariable logistic regression models predicting viral load <50, <400 and <1000 copies/mL among 137 women.

	Viral load <50 copies/mL OR 95% CI	Viral load <400 copies/mL OR 95% CI	Viral load <1000 copies/mL OR 95% CI
Increasing years of age	1.10 (1.02-1.18)	1.11 (1.03-1.20)	1.08 (1.00-1.17)
Increasing years on ART	1.38 (0.28-6.75)	1.76 (0.33-9.26)	2.30 (0.43-12.40)
Increasing BMI (kg/m²)	1.05 (1.00-1.11)	1.04 (0.99-1.09)	1.04 (0.99-1.10)
Increasing creatinine clearance mL/min/1.73m² (n=74)	0.98 (0.94-1.03)	0.97 (0.92-1.02)	0.97 (0.92-1.02)
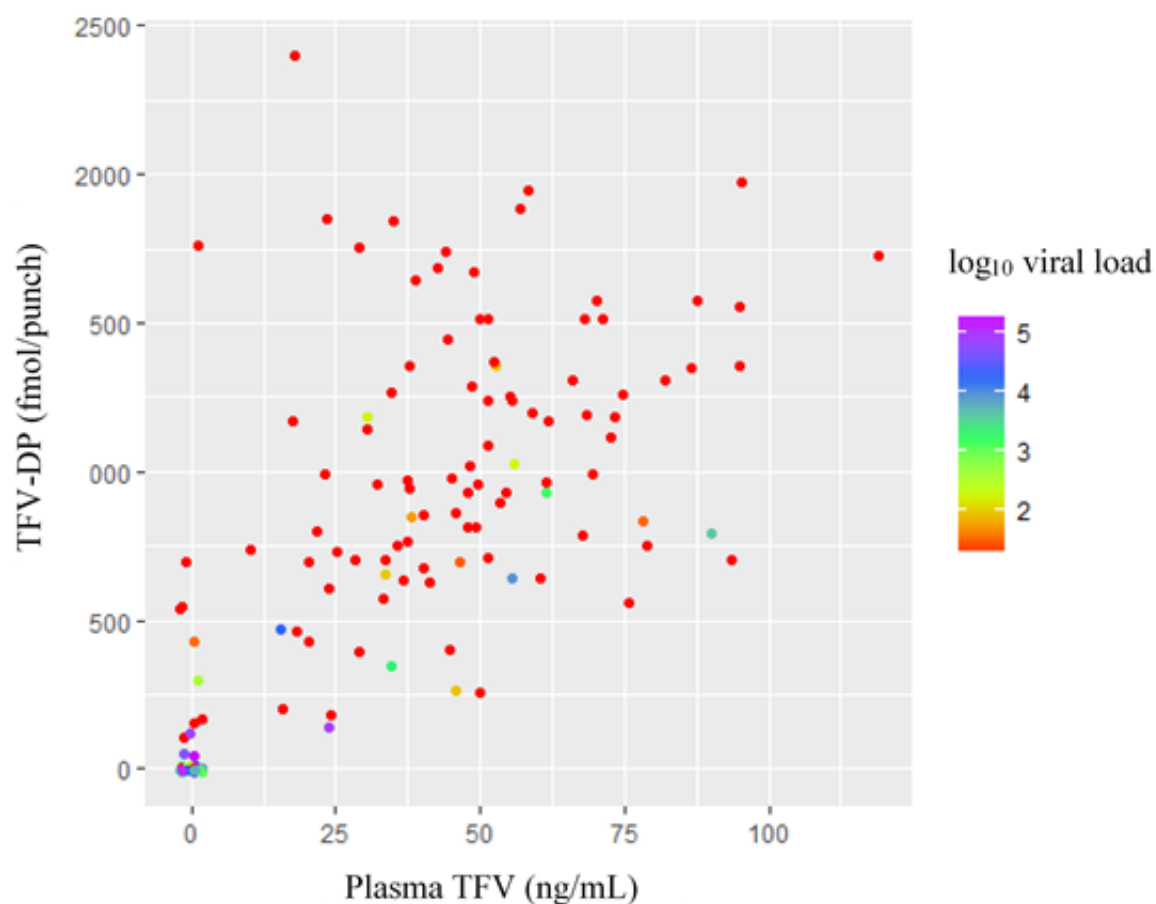
S figure 3. Scatter plot of tenofovir-diphosphate (TFV-DP) in DBS and plasma tenofovir (TFV) concentrations.

S table 4. Women with detectable plasma tenofovir (TFV) and efavirenz (EFV) concentrations but very low tenofovir-diphosphate concentration in dried blood spots (DBS TFV-DP).

Patient	Viral load (copies/mL)	DBS TFV-DP (fmol/punch)	Plasma TFV (ng/mL)	Plasma EFV (µg/mL)
1	20	178	25.2	1.16
2	20	209	15.1	2.04
3	87	270	47.5	1.12
4	88741	136	22.6	0.54