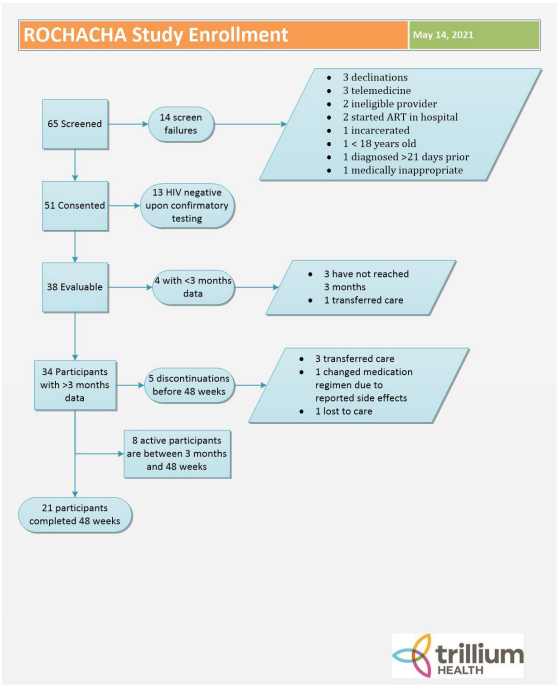
Results. Thirty-four participants have been enrolled in the study for at least 12 weeks, 33 (97%) of whom have reached and maintained viral suppression. Twenty-one participants have completed all 48 weeks, with 20 (95%) reaching and maintaining viral suppression. In comparison to historical controls, the RSA study participants had a statistically significant shorter time to viral suppression, both from diagnosis and from ART initiation. The RSA patients had statistically significant higher retention at 12, 24, and 48 weeks in comparison to historical controls. Adherence was higher in the RSA patients, though not statistically significant.

Enrollment Graphic for the Rochacha Study



Baseline Demographics of Study Participants and Controls

Baseline characteristics	Study RSA (n = 34)	Non-RSA control (n = 24)	P value
Age at diagnosis, mean (SD)	32.2 (9.8)	36.3 (13.3)	0.368
Sex at birth = male, n (%)	33 (97.1%)	19 (79.2%)	0.072
Gender identity = male, n (%)	27 (79.4%)	17 (70.8%)	0.539
Sexual orientation = gay, n (%)	20 (58.8%)	11 (45.8%)	0.425
HIV viral load prior to ART initiation, median (IQR), log_{10} copies/mL	4.5 (3.7 - 5.0)	4.7 (4.3 - 5.1)	0.290
HIV viral load prior to ART initiation, median (IQR), copies/mL	33,397 (4,874 - 88,675)	46,800 (20,825 - 133,250)	0.290
HIV viral load prior to ART initiation >= 100,000 copies/mL, n (%)	8 (23.5%)	9 (37.5%)	0.380
IV drug use ever, n (%)	6 (17.6%)	3 (12.5%)	0.722
Mental health diagnoses	12 (35.3%)	7 (29.2%)	0.778
Homeless ever, n (%)	4 (11.8%)	4 (16.7%)	0.706
Race = white, n (%)	18 (52.9%)	11 (45.8%)	0.790
Race = black, n (%)	14 (41.2%)	10 (41.7%)	1.000
Race = other, n (%)	2 (5.9%)	3 (12.5%)	0.640
Ethnicity = Non-Hispanic/Latinx, n (%)	22 (64.7%)	20 (83.3%)	0.145
Ethnicity = Hispanic/Latinx, n (%)	9 (26.5%)	4 (16.7%)	0.526
Ethnicity = unreported, n (%)	3 (8.8%)	0 (0.0%)	0.260
CD4 cells/mm^3 prior to ART initiation, median (IQR)	462 (338 - 644)	447 (291.75 - 647.5)	0.453
CD4 <200 cells/mm^3 prior to ART initiation, n (%)	1 (2.9%)	3 (12.5%)	0.297

Clinical Outcomes of Study Participants compared to Controls

Outcomes	Study RSA (n=34)	Non-RSA Control (n=24)	P value
Diagnosis to clinic presentation, median (interquartile range)	1.0 (0.0 - 4.0) days	9.5 (6.0 – 22.25) days	<0.001
Clinic presentation to ART, median (interquartile range)	0.0 (0.0 - 0.0) days	35.5 (28.0 – 57.0) days	<0.001
Diagnosis to VL <200 copies/mL, median (interquartile range)	16.0 (11.0 - 31.0) days*	94 (83.75 – 199.0) days	<0.001
ART to VL <200 copies/mL, median (interquartile range)	14.0 (7.0 - 28.0) days*	34 (29.75 – 62.75) days	<0.001
Diagnosis to VL <50 copies/mL, median (interquartile range)	16.0 (11.0 - 31.0) days*	187.5 (113.0 – 340.8) days	<0.001
ART to VL <50 copies/mL, median (interquartile range)	27.0 (13.0 - 52.0) days*	74 (31.75-200.5) days	<0.001
Linkage and Retained in care at 3 months, % (count/n)**	88.2% (29/34)	50% (12/24)	<0.05
Retained in care at 6 months, % (count/n)**	80.6% (25/31)	38% (9/24)	<0.05
Retained in care at 12 months, % (count/n)**	86.4% (19/22)	38% (9/24)	<0.05
Pharmacy adherence through 48 weeks, median percentage (n)**	91% (21)	67% (9)	Not significant

*Viral suppression data for the Study RSA group is n=33, because one participant does not have viral suppression data

**For the longitudinal measures, the population size changes as some study participants either withdrew participation or have not yet reached that time point.

Conclusion. Our data show that RSA with BFTAF can be effective in a community based health center setting in participants facing barriers to care. The patients who were treated by RSA with BFTAF had a high viral suppression rate. To date, no BFTAF regimen had to be changed due to resistance or virologic failure in this study. These data support implementation of RSA with BFTAF as standard of care.

Disclosures. **Ashley R. Zuppelli, PHARMD, BCACP, AAHIVP**, **Gilead Sciences** (Research Grant or Support) **Robert Biernbaum, DO, MS, FAAEM, AAHIVS**, **Gilead Sciences** (Research Grant or Support) **Roberto Corales, DO, AAHIVS**, **Gilead Sciences** (Employee, Scientific Research Study Investigator) **Shealynn Hilliard, MS**, **Gilead Sciences** (Research Grant or Support) **William M. Valenti, MD, FIDSA**, **Gilead Sciences** (Research Grant or Support)

881. Long-term Weight Gain After Initiating Combination Antiretroviral Therapy in Treatment-naïve Asian People Living with HIV

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Background. Weight gain after the initiation of antiretroviral therapy (ART) is becoming a major clinical issue in treatment-naïve people living with human immunodeficiency virus (PLWH). However, limited data exist for the Asian populations. We aimed to investigate changes in weight after the initiation of ART therapy in treatment-naïve Asian patients.

Methods. We evaluated adult, treatment-naïve Asian PLWH who started integrase strand transfer inhibitor (INSTI)-, protease inhibitor (PI)-, or nonnucleoside reverse transcriptase inhibitor (NNRTI)-based ART at AIDS Clinical Center, Tokyo, between January 2005 and February 2019. They were followed up until October 2019. Multivariate linear mixed-effects models were used to generate marginal predictions of weight over time. Predicted weight by ART class (INSTI, PI, and NNRTI), each key drug (dolutegravir [DTG], elvitegravir [EVG], raltegravir [RAL], and darunavir [DRV]), and each key drug with or without the use of tenofovir alafenamide (TAF)/emtricitabine (FTC) was reported at 3-month intervals until censoring or 5 years.

Results. Among the 1,579 study patients, 610 (38.6%), 929 (58.8%), and 40 (2.5%) started INSTI-, PI-, and NNRTI-based ART. After 5 years, PLWH who initiated DTG- (5.3 kg), DRV- (4.0 kg), and EVG-based treatment (4.6 kg) gained more weight than those who initiated RAL-based treatment (1.8 kg). PLWH who initiated DTG plus TAF/FTC (6.7 kg) gained the largest weight.

Conclusion. In the Asian PLWH population, ART-associated weight gain continues to increase for 5 years after treatment initiation. DTG plus TAF/FTC was associated with the largest weight gain.

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