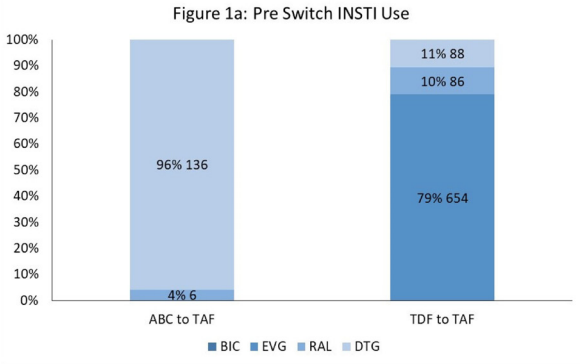
Table 1. Baseline (index) characteristics.

Treatment-experienced suppressed switches from INSTI+NRTI: ABC to TAF and TDF to TAF		A: ABC to TAF n=142	B: TDF to TAF n=828		C: Gained≥ 3%	D: Lost or gained < 3%	
only p-values<0.05 are shown		n (%)	n (%)	A v B			C v D
Age <50		55 (39)	532 (64)	<0.001	242 (66)	345 (57)	0.009
Gender	Male	112 (79)	647 (78)		275 (75)	484 (80)	0.038
	Female	19 (13)	134 (16)		69 (19)	84 (14)	0.047
	Other	0 (0)	3 (0)		1 (0)	2 (0)	
	Unknown	11 (8)	44 (5)		23 (6)	32 (5)	
Race	White	85 (60)	454 (55)		194 (53)	345 (57)	
	Black or African American	38 (27)	237 (29)		111 (30)	164 (27)	
	Other	11 (8)	81 (10)		38 (10)	54 (9)	
	Unknown	8 (6)	56 (7)		25 (7)	39 (6)	
Baseline BMI	Underweight	5 (4)	38 (5)		23 (6)	20 (3)	0.031
	Normal	44 (32)	263 (32)		132 (36)	175 (30)	0.026
	Overweight	52 (38)	267 (33)		107 (30)	212 (36)	0.049
	Obese	36 (26)	250 (31)		100 (28)	186 (31)	
Baseline CD4 count <200 cells/ml		8 (6)	23 (3)		22 (6)	47 (8)	0.049
Prior regimens	1	43 (30)	473 (57)	<0.001	211 (57)	305 (51)	0.043
	2	43 (30)	203 (25)		84 (23)	162 (27)	
	3 or more	56 (39)	152 (18)	<0.001	73 (20)	135 (22)	
INSTI Post switch	RAL	0 (0)	27 (3)	N/A	10 (3)	17 (3)	
	DTG	23 (16)	94 (11)		49 (13)	68 (11)	
	BIC	74 (52)	48 (6)	<0.001	40 (11)	82 (14)	
	EVG	45 (32)	659 (80)	<0.001	269 (73)	435 (72)	
INSTI Pre Switch	Prior RAL	6 (4)	86 (10)	0.021	31 (8)	61 (10)	
	Prior DTG	136 (96)	88 (11)	<0.001	73 (20)	151 (25)	
	Prior BIC	0 (0)	0 (0)	N/A	0 (0)	0 (0)	
	Prior EVG	0 (0)	654 (79)	N/A	264 (72)	390 (65)	0.025

Figures 1a-b. Distribution of pre switch and post switch INSTI use.



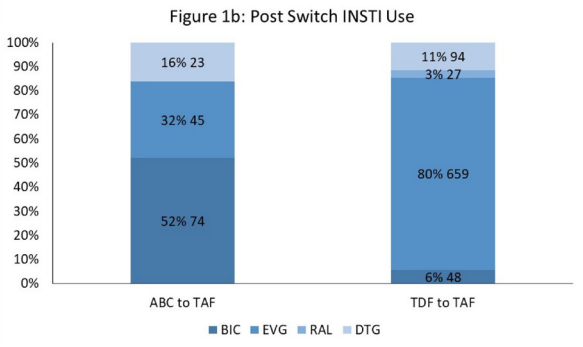
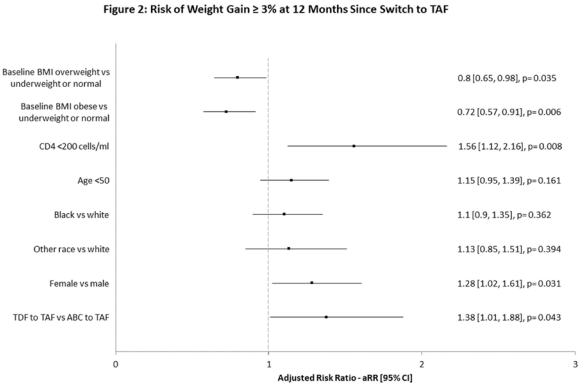


Figure 2. Risk of weight gain ≥ 3% of body weight at 1 year post switch accounting for age, gender, race, index BMI, and CD4.



Conclusion. Switching from TDF to TAF in INSTI-based regimens had a greater risk of weight gain vs ABC to TAF. This difference persisted when accounting for impact of the INSTI agent in the current regimen. These data suggest that differences in weight gain between TAF and TDF are driven by removal of TDF-associated weight suppression.

Disclosures. **Paul Sax, MD**, **Gilead** (Consultant, Research Grant or Support)**Janssen** (Consultant)**Merck** (Consultant, Research Grant or Support)**ViiV Healthcare** (Consultant, Research Grant or Support) **Keri N. Althoff, PhD, MPH**, **Gilead** (Advisor or Review Panel member) **Keri N. Althoff, PhD, MPH**, All of Us Study (NIH) (Individual(s) Involved: Self): Consultant; MedIQ (Individual(s) Involved: Self): Consultant; TrioHealth (Individual(s) Involved: Self): Advisor or Review Panel member **Todd T. Brown, MD, PhD**, **Gilead** (Consultant)**Merck** (Consultant)**Theratechnologies** (Consultant)**ViiV Healthcare** (Consultant) **Janna Radtchenko, MBA**, **Trio Health** (Employee) **Helena Diaz Cuervo, PhD**, **Gilead Sciences** (Employee) **Steven Santiago, MD**, **Gilead** (Advisor or Review Panel member, Speaker's Bureau)**Janssen** (Speaker's Bureau) **Graeme Moyle, MD**, **Theratechnologies** (Consultant) **Karam Mounzer, MD**, **Epividian** (Advisor or Review Panel member)**Gilead** (Advisor or Review Panel member, Research Grant or Support, Speaker's Bureau)**Janssen** (Advisor or Review Panel member, Research Grant or Support, Speaker's Bureau)**Merck** (Advisor or Review Panel member, Research Grant or Support, Speaker's Bureau)**ViiV Healthcare** (Advisor or Review Panel member, Research Grant or Support, Speaker's Bureau) **Richard Elion, MD**, **Gilead** (Advisor or Review Panel member, Research Grant or Support, Speaker's Bureau)**Janssen** (Speaker's Bureau)**Proteus** (Research Grant or Support)**ViiV Healthcare** (Advisor or Review Panel member, Research Grant or Support)

LB-8. Summary of COVID-Related Impact on Cabotegravir and Rilpivirine Long-Acting (CAB+RPV LA) Dosing Across the Six Ongoing Global Phase IIb and IIIb Clinical Trials

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Session: LB1. Late Breaking Abstracts
Saturday, October 24, 2020: 11:00 AM

Background. SARS-CoV-2 (COVID-19) has disrupted healthcare service delivery globally. CAB+RPV LA is a novel, long-acting antiretroviral therapy (ART) currently in development and is administered intramuscularly monthly or every 2 months by a healthcare provider. COVID-19 and the resultant restrictions on access to some clinical trial sites presents challenges to the continuous delivery ('implementation fidelity') of CAB+RPV LA during a pandemic.

Methods. Descriptive analyses were conducted using aggregated data from ongoing CAB+RPV LA clinical trials (LATTE-2, ATLAS, ATLAS-2M, FLAIR, POLAR, and CUSTOMIZE) to evaluate impact of COVID-19 on LA dosing. Data through 15 July 2020 were aggregated, categorized, and summarized to show trends. Data collection is continuously ongoing.

Results. As of 15 July 2020, 1831 participants are currently on CAB+RPV LA across these clinical studies. As of 15 July, 113 (6%) participants had injection visits that were impacted by COVID-19. LA dosing was interrupted in 51 (45%) participants due to clinic closure or staffing constraints, 9 (8%) for self-quarantine, 11 (10%) for confirmed or suspected COVID-19, and 42 (37%) for other reasons. Among participants impacted, 64 (58%) were from N. America, 29 (26%) Europe, 14 (13%) S. Africa, and 3 (3%) Latin America. Majority of participants were male (87, 79%), white (74, 65%), with median age 35 years. Mitigation strategies included short-term oral therapy with CAB+RPV (78, 69%), short-term standard of care ART (28, 25%), and rescheduling of LA injections (6, 5%). Although some are still receiving oral therapy, current median duration of oral therapy has been 45 days. To date, 65 (58%) have restarted LA and viral load data collection is ongoing. No suspected or confirmed virologic failure was observed for any participant impacted by COVID-19 to date.

Conclusion. In the midst of the global pandemic, no treatment interruptions were seen across the ongoing CAB+RPV LA clinical studies. Missed visits were manageable and successfully mitigated, primarily by temporary transition to oral therapy with no resultant virologic failure or emerging resistance through 15 July 2020. CAB+RPV LA is a new HIV-1 treatment modality that has demonstrated implementation fidelity across clinical studies during the current COVID-19 pandemic.

Disclosures. **Ronald D'Amico, DO, MSc**, **GlaxoSmithKline** (Shareholder)**ViiV Healthcare** (Employee) **Paul Benn, MB ChB FRCP**, **ViiV Healthcare** (Employee, Shareholder) **Cynthia C. McCoig, MD**, **ViiV Healthcare** (Employee) **Cynthia C. McCoig, MD**, ViiV Healthcare (Individual(s) Involved: Self): Employee **Sandy Griffith, PharmD**, **GlaxoSmithKline** (Shareholder)**ViiV Healthcare** (Employee) **Krischan J. Hudson, PhD, MPH**, **GlaxoSmithKline** (Shareholder)**ViiV Healthcare** (Employee) **Kenneth Sutton, MA**, **GlaxoSmithKline** (Shareholder)**ViiV Healthcare** (Employee) **Kenneth Sutton, MA**, GlaxoSmithKline (Individual(s) Involved: Self): Shareholder; ViiV Healthcare (Individual(s) Involved: Self): Employee **Conn M. Harrington, BA**,

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Session: LB2. Late Breaking COVID-19 Abstracts
Saturday, October 24, 2020: 1:15 PM

LB-9. Development of a SARS-CoV2 vaccine, ChAdOx1 nCoV19: immunogenicity and safety in older adults

Background. The pandemic of SARS-CoV2 has led to a huge impact on population health, resilience of health systems and economies. While social distancing measures have been shown to slow spread, the end of the pandemic will only be achieved with sufficient population immunity in those at greatest risk, and this is most safely achieved through vaccination. We tested safety and immunogenicity of a novel viral vector vaccine in older age groups to consider the potential impact in older adults

Methods. Healthy adults were recruited aged 18–55, 56–69 and ≥70 years and enrolled in the phase II clinical to receive 1 or 2 doses of either ChAdOx1-nCoV19 (AZD1222) or a control vaccine (MenACWY). Safety was monitored using a diary to collect local and systemic solicited symptoms. Blood was drawn at baseline and 14 and 28 days after primary and booster vaccination. Immune responses were evaluated by ELISA, in a neutralizing assay and by interferon-gamma ELISPOT.

Results. Immune responses were demonstrated across all ages, with stronger antibody responses after a second dose of vaccine administered 1 month after the first. Local and systemic reactogenicity was lower at older ages than in younger adults and lower after the second dose then after the first.

Conclusion. ChAdOx1-nCoV19 has an acceptable tolerability profile and is immunogenic in adults above 18 years of age including older adults, with stronger responses after a second dose. Phase III clinical trials for further evaluation are ongoing.

Disclosures. **All Authors**: No reported disclosures

LB-10. Rapid Assessments of Non-Pharmaceutical Intervention Uptake and Population Mobility Patterns Elucidate SARS-Cov-2 Transmission Dynamics

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Session: LB2. Late Breaking COVID-19 Abstracts
Saturday, October 24, 2020: 1:25 PM

Background. Current mitigation strategies for SARS-CoV-2 rely on population-wide adoption of non-pharmaceutical interventions (NPIs). Monitoring NPI adoption, mobility patterns and their association with SARS-CoV-2 infection can provide key information for public health agencies and be used to calibrate transmission models.

Methods. We used an online panel to accrue representative samples from Florida, Illinois, and Maryland (n=3,009, approximately 1,000 per state) from July 15–31, 2020 and capture socio-demographically and geographically resolved information about NPI adoption and mobility in the prior 2 weeks. Logistic regression was used to identify correlates of self-reported SARS-CoV-2 infection in the prior 2 weeks.

Results. Overall, 96% reported traveling outside their home in the prior 2 weeks, the most common reason being to visit a grocery store/pharmacy (92%), followed by visiting friends/family (61%), and visiting a place of worship (23%); 22% reporting public transportation use. In total, 44% of respondents reported always practicing social distancing and 40% reported always using a mask indoors and outdoors. Overall, 74 (2.5%) reported testing positive for SARS-CoV-2 in the prior 2 weeks, with strong dose-response relationships between several forms of movement frequency and SARS-CoV-2 positivity. Variables capturing mobility were all highly correlated with one another, suggesting there are clusters of individuals who engage in multiple activities (Figure); 41% of positive cases engaged in all forms of mobility captured compared to 1% of those who did not test positive within the prior 2 weeks. Patterns of mobility and NPI uptake did not significantly differ by state; however, there were significant relationships with age, race/ethnicity, and gender. In multivariable models including adjustment for NPIs, significant relationships remained with public transportation, visiting a place of worship, and participating in outdoor group fitness activities.

Figure. Heatmap depicting pairwise Spearman correlation coefficients between survey responses. Pairwise correlation coefficients are displayed in the boxes at intersection of any two variables. Questions were asked with respect activities in the prior 2 weeks.

Conclusion. NPI adoption and mobility did not vary across these three states with variable policies and SARS-CoV-2 positivity rates. Rather, associations with recent positivity appear to be driven largely by mobility patterns and engagement in activities where NPI use may be challenging or inconsistent.

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LB-11. Comparison of Viral Loads in Individuals With or Without Symptoms At Time of COVID-19 Testing Among 32,480 Residents and Staff of Nursing Homes and Assisted Living Facilities in Massachusetts

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Background. Transmission of COVID-19 from people without symptoms confounds public health containment strategies. Comprehensive cross-sectional screening enables assessment of viral load independent of symptoms, informing transmission risks. We quantified SARS-CoV-2 burden by RT-qPCR from comprehensive screening of nursing homes and assisted living facilities in Massachusetts to inform our ability to detect SARS-CoV-2 in individuals with or without symptoms.

Methods. From 4/9/20 to 6/9/20, we tested nasopharyngeal (NP) swabs from 32,480 unique individuals comprising staff and residents of the majority of nursing homes and assisted living facilities in Massachusetts. Symptomatology at the time of sampling and demographic information were provided by each facility. NP swabs were collected, RNA extracted, and SARS-CoV-2 testing performed by RT-qPCR. We compared cycle thresholds (Ct) with a standard curve to quantify viral loads.

Results. The nursing home and assisted living facilities resident cohort (N = 16,966) was 65% female with mean age 82. The staff cohort (N = 15,514) was 76% female with mean age 45. In all, 2654 residents (15.5%) and 624 staff (4.1%) tested positive for SARS-CoV-2, including 12.7% of residents and 3.7% of staff without symptoms, compared to 53.1% of residents and 18.2% of staff with symptoms. The Ct distributions for viral probes were very similar between populations with and without symptoms (Fig 1), with a statistically but not meaningfully different mean (ΔCt 0.71 cycles, p = 0.006) and a similar range (12–38 cycles). This similarity persisted across all sub-categories examined (age, race, ethnicity, sex, resident/staff).