Background
With aging of the population with perinatal HIV infection (PHIV+ in the United States, concerns have emerged about their transition into adulthood. Using data from CASAH, one of the largest behavioral longitudinal cohort studies of PHIV+ and perinatally HIV-exposed uninfected (PHEU) youth, we examined young adult (YA) milestones, and behavioral and biomedical outcomes.

Methods
Participants, ages 9-16 years, were recruited from 4 New York City hospitals (2003-2008) and followed every 12-18 months. Validated assessments of psychiatric and substance use (SUD) disorders, and psychosocial and behavioral function and medical chart abstraction were completed at each time point. Data come from the 5th follow-up interview, conducted in 2014-2017. Descriptive statistics, chi-square and t-tests were used to compare YA milestones, sexual and reproductive health, psychiatric disorders, SUD and substance use, and neurocognitive function between PHEU and PHIV+ YA.

Results
Demographics. Participants were 18-28 years (mean=22), 54% female, 69% African American/Black and 50% Latino. PHIV+ participants were more likely than PHEU to be enrolled in financial assistance programs (70% vs. 47%; p<0.001) and to receive Medicaid (89% vs. 75%; p=0.008). Biomedical Outcomes. Among PHIV+ YA, mean CD4+ was 491 cells/mm$^3$; mean viral load (VL) 2.4 log$_{10}$ SD 1.66; 52% had a VL<50 copies/mL; 32%; 3% had a VL>1000. 67% were prescribed a 2-drug class and 31% a 3-class ART regimen; 58% were prescribed a boosted protease inhibitor and 56% an integrase inhibitor. 87% were taking a once daily regimen; 32% took a single fixed dose combination pill; 34% were taking >4 pills daily.

Psychosocial Outcomes. Over a quarter of participants met criteria for any psychiatric disorder excluding SUD, and equally high rates of SUD, with no HIV group differences. PHIV+YA reported significantly higher utilization of mental health treatment including medication compared with PHEUYA, with few (2 PHEUYA, 2 PHIVYA) in SUD treatment. Also, 28% reported cigarette, 63% alcohol, and 47% marijuana use in the past thirty days, again with no group differences.

Conclusions
Similar to PHEU, many PHIV+ young adults are achieving age appropriate adult milestones, but high rates of psychiatric and substance use disorders, neurocognitive dysfunction and viremia on ART warrant attention. psychiatric and SUD treatment must be part of HIV healthcare for PHIV+YA with strategies needed to reach and engage PHEUYA.