Table S1. Source of samples used for analysis.

| Study | Reference | Population enrolled | HIV status at enrollment | Enrollment (years) | Follow-up interval | Length of follow-up | HIV test method |
|------------|-------------|---------------------|---------------------------------------|--|-----------------------|-----------------------------|------------------------------|
| MACS | Kaslow (22) | MSM | Infected (42%) Uninfected (58%) | 1984-1985; 1987-1990; 2001-2003 | 6 months | Ongoing (up to 29 years) | EIA / WB ^a |
| ALIVE | Vlahov (23) | PWID | Uninfected | 1988-1989; 1994-1995; 1998; 2000; 2005-2008 | 6 months | Ongoing (up to 25 years) | EIA / WB |
| JHHCC | Moore (25) | Various | Infected | 1989-present | Various | Ongoing (>24 years) | SOC |
| HIVNET 001 | Celum (24) | Various | Uninfected | 1995-1998 | 3 months | Up to 3 years | EIA / WB ^b |
| HPTN 061 | Koblin (28) | Black MSM | Infected (25%) Uninfected (75%) | 2009-2010 | 6 months | 12 months | Rapid test / WB ^b |
| HPTN 064 | Hodder (27) | Women | Infected (1.5%) Uninfected (98.5%) | 2009-2010 | 6 months | 6 or 12 months | Rapid test / WB ^b |

Abbreviations: MACS: Multicenter AIDS Cohort; ALIVE: AIDS Linked to the Intravenous Experience; JHHCC: Johns Hopkins Hospital Clinical Cohort; HIVNET: HIV Network for Prevention Trials; HPTN: HIV Prevention Trials Network; MSM: men who have sex with men; PWID: persons who inject drugs; SOC: standard of care; EIA: enzyme immunoassay; WB: Western blot.

^a Some participants were enrolled in this study before HIV testing algorithms were available. For these participants, stored samples from their baseline visit were tested when the tests became available.

^b Retrospective quality control testing was performed at a centralized reference laboratory. This analysis included testing for acute infection at the visit prior to seroconversion.