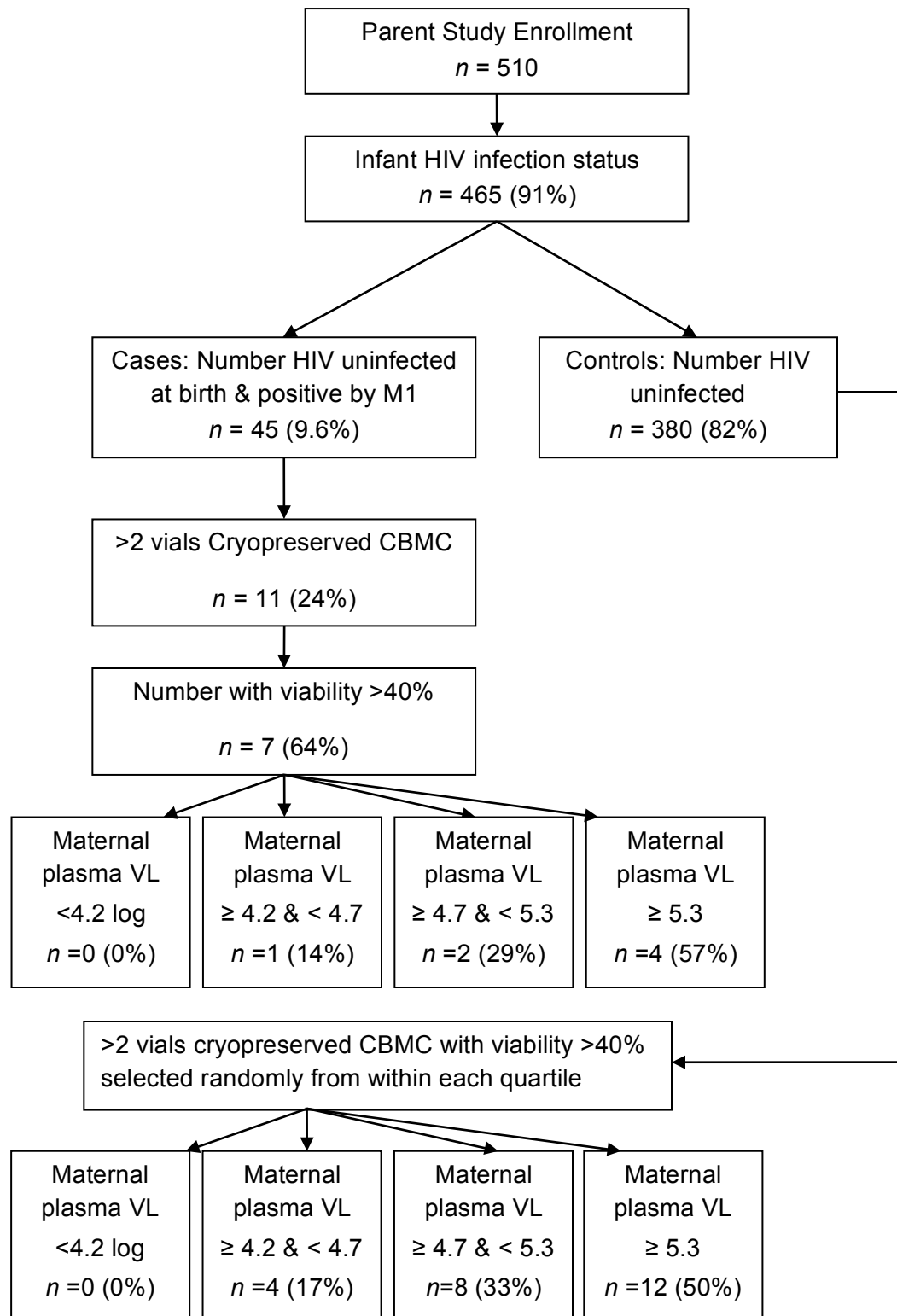
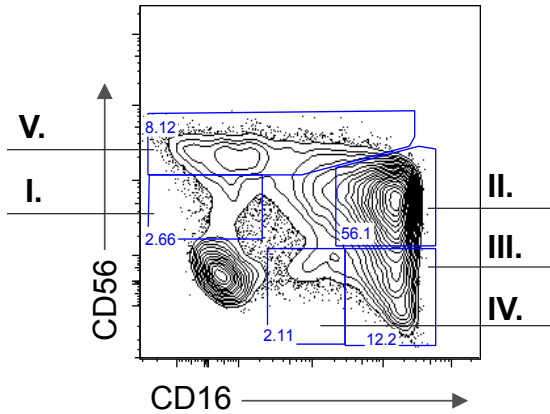




Supplemental digital content 1. Participant flow chart. Selected cases were HIV-uninfected at birth but HIV-infected by 1 month of age, had multiple cryopreserved vials of cord blood mononuclear cells (CBMCs), and had CBMC viability >40% upon thaw (n = 7). Eligible cases were classified according to maternal viral load quartiles. Approximately 4 controls, which were HIV-uninfected at birth and by 1 year of age, were identified per case based on matching for maternal viral load quartile (n=24).

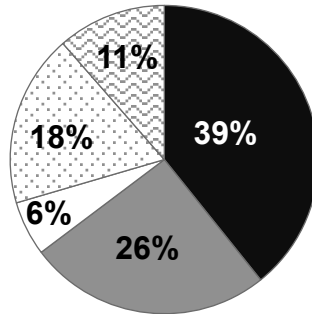
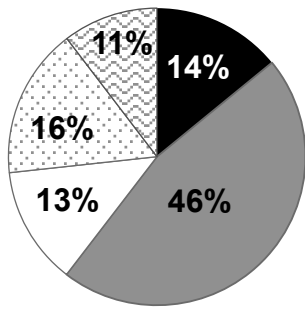
(a)



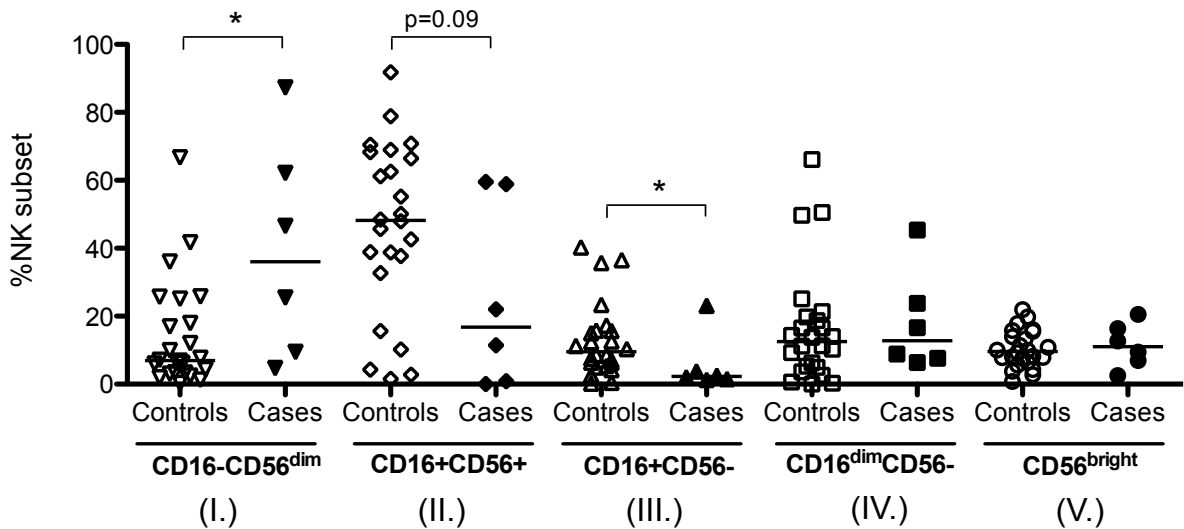
(b)

Controls

(c)

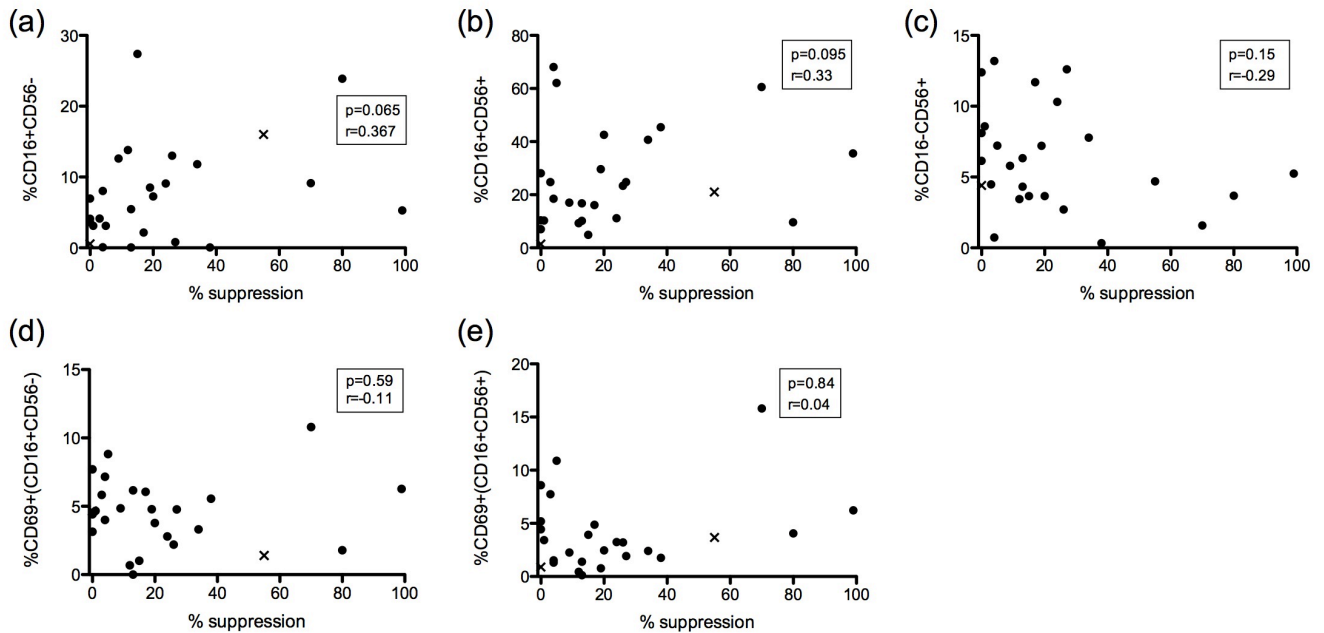
Cases


(d)



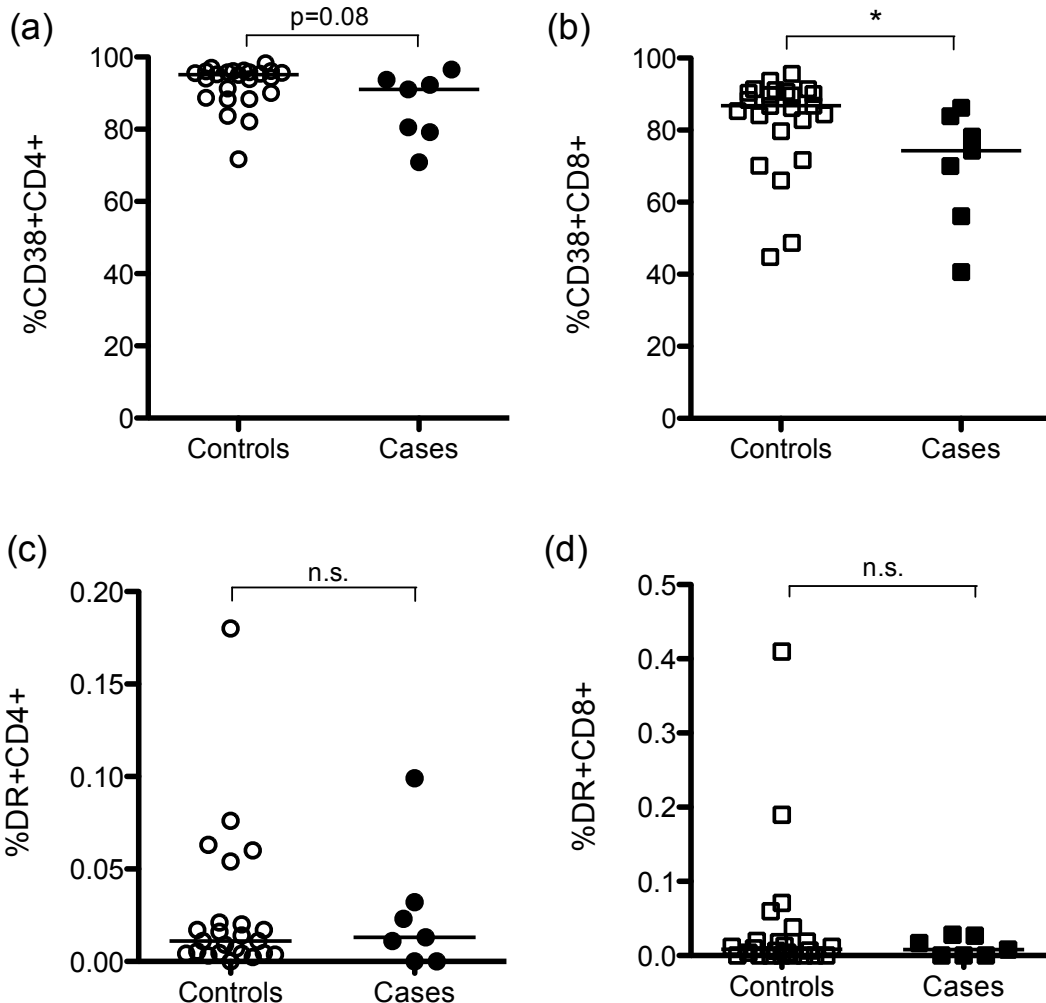
Supplemental digital content 2. NK cell gating strategy based on CD16 and CD56 fluorescence intensity. NK cells were assessed by a refined gating (a). The CD56^{dim}CD16^{neg} (I.), CD56⁺CD16⁺ (II.), CD16^{bright}CD56^{neg} (III.), CD16^{dim}CD56^{neg} (IV.), and CD56^{bright} (V.) are depicted. The phenotypic distribution of NK cell subsets: pie charts display median frequencies of each of the 5 NK cell subsets in either controls (b) or cases (c). Comparison of NK cell subset proportions (gates I-V) between controls (N=26) and cases (N=6); lines represent the medians for a given subset (d). Statistics were generated via a Mann-Whitney test (* $p < 0.05$)."

Supplemental digital content 3.



Supplemental digital content 3. Viral suppressive capacity of cord blood NK cells. NK cells were assessed for their ability to suppress HIV replication in autologous CD4+ T cells. Suppressive capacity was subsequently correlated with NK cell subset proportions and activation marker (CD69) expression. The percent of NK cell subsets CD16+CD56- (a), CD16+CD56+ (b), CD16-CD56+ (c) and percent CD69+ cells found within CD16+CD56- NK cell subset (d) and CD69+ CD16+CD56+ NK cell subset (e) are presented. Each point represents the average suppressive capacity of NK cells from each cord blood sample's replicates. Solid dots represent infants that remained HIV-uninfected while x's represent infants that subsequently became HIV-1 infected (N=26). Statistics were generated using a Spearman correlation.

Supplemental digital content 4.



Supplemental digital content 4. CD38 and HLA-DR single-expression on CD4+ and CD8+ T cells in CBMC by subsequent HIV-1 acquisition. CD4+ or CD8+ lymphocytes were assessed for activation and maturation status by expression of CD38 (a. CD4+, b. CD8+), and HLA-DR (c. CD4+, d. CD8+). Lines represent medians for each group, and statistics were generated using a Mann-Whitney test (* $p < 0.05$, n.s. $p > 0.1$).