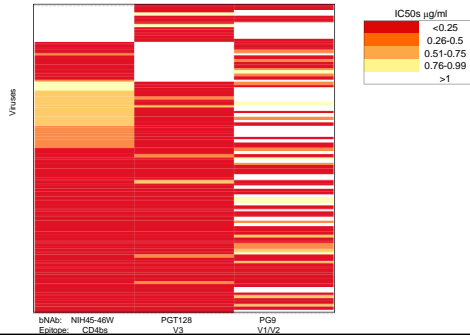
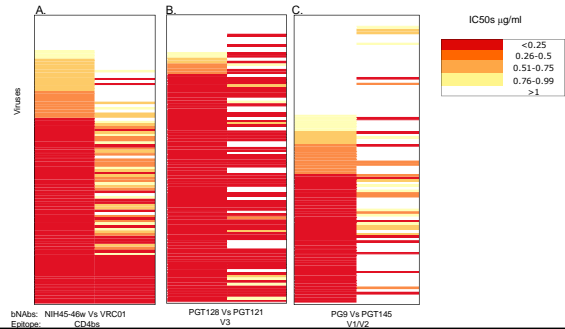


Supplementary Figure 1: A heatmap showing sensitivity profiles of the most broad and potent bNAbs in each class. Each row shows the IC50's of maternal and infant variants tested against the bNAbs that target distinct epitopes indicated at the bottom. Darker shading indicates increasing bNAbs potency and white denotes variants resistant to neutralization by corresponding bNAbs at highest concentration tested (1 μ g/ml). Color key values are in the range from 0.001-1 μ g/ml and are grouped by quantiles as shown in the key to the upper left. Viruses resistant to either NIH45-46W or PGT128 have been clustered together to emphasize the complete complementary activity of these bNAbs. IC50's are an average of at least two independent experiments.



Supplementary Figure 2: A heatmap comparing the neutralization profiles bNAbs that target similar epitopes. Each row shows the IC50's from maternal and infant variants for pairs of bNAbs that target similar epitopes indicated at the bottom. Panels represent (A) pairs of bNAbs that target the CD4bs, (B) a glycan dependent epitope in the V3 loop and (C) a glycan dependent epitope in the V1/V2 loop. Darker shading indicates increasing bNAbs potency and white denotes variants resistant to neutralization by corresponding bNAbs at highest concentration tested (1 μ g/ml). Color key values are in the range from 0.001-1 μ g/ml and are grouped by quantiles as shown in the key to the upper left. IC50's are an average of at least two independent experiments.



Supplementary Figure 3: Comparison of neutralization sensitivity of infant variants versus all maternal variants to bNAbs. Analyses were performed by GEE using a logit link and exchangeable correlation structure, except where marked by *, which indicates Fisher's exact test. "-" indicates the reference group for analyses. The p values for each bNAbs are shown. IC50's are an average of at least 2 independent experiments.

bNAbs	Mom % (n) n=65	Infant % (n) n=22	OR	95%CI	p-value
NIH45-46W	89% (76)	86% (19)	0.77	0.12-5.02	0.79
VRC01	65% (55)	77% (17)	1.55	0.32-7.47	0.22
PGT128	86% (73)	86% (19)	0.94	0.16-5.53	0.95
PGT121	67% (57)	82% (18)	1.39	0.34-4.47	0.67
PGT145	61% (52)	82% (18)	2.5	0.51-12.2	0.26
PGT145	32% (27)	27% (6)	0.8	0.17-3.72	0.77
msb					
b12	12% (10)	0% (0)	Inf	0.6-Inf	0.12

Supplementary Figure 4: Detailed analysis of the neutralization sensitivity of different HIV-1 subtypes to bNAbs. Comparison of subtype A variants against non-subtype A variants (excluding subtype A recombinants and pure subtype D) (A). Comparison of subtype A variants against C and C/D recombinants (excluding subtype A recombinants and pure subtype D) (B). Comparison of subtype A against D and C/D recombinants (excluding subtype A recombinants and pure subtype C) (C). Analysis was performed by GEE using a logit link and exchangeable correlation structure. "-" indicates the reference group for analyses. The p values for each bNAbs are shown. IC50's are an average of at least 2 independent experiments.

A.	bNAbs	Subtype A % (n) (n=90)	Subtypes C, D, C/D % (n) (n=36)	OR	95% CI	p-value
	NIH45-46W	98% (88)	69% (25)	0.07	0.007-0.77	0.03
	VRC01	88% (79)	30% (10)	0.1	0.02-0.41	0.001
	PGT128	67% (60)	72% (26)	1.6	0.44-5.88	0.48
	PGT121	51% (46)	75% (27)	3.07	0.85-11.0	0.09
	PGT145	70% (63)	53% (19)	0.47	0.13-1.71	0.26
	PGT145	37% (33)	19% (7)	0.41	0.12-1.39	0.15
B.	bNAbs	Subtype A % (n) (n=90)	Subtypes C, D, C/D % (n) (n=19)	OR	95% CI	p-value
	NIH45-46W	98% (88)	74% (14)	0.1	0.006-1.72	0.11
	VRC01	88% (79)	47% (9)	0.18	0.04-0.85	0.03
	PGT128	67% (60)	89% (17)	6.19	0.79-48.5	0.08
	PGT121	51% (46)	89% (17)	13.7	3.56-52.7	0.0001
	PGT145	70% (63)	79% (15)	2.96	0.4-21.4	0.28
	PGT145	37% (33)	11% (2)	0.17	0.05-0.62	0.007
C.	bNAbs	Subtype A % (n) (n=90)	Subtypes D, C/D % (n) (n=25)	OR	95% CI	p-value
	NIH45-46W	98% (88)	72% (18)	0.07	0.007-0.72	0.03
	VRC01	88% (79)	32% (8)	0.08	0.02-0.37	0.002
	PGT128	67% (60)	68% (17)	1.09	0.24-4.92	0.91
	PGT121	51% (46)	68% (17)	1.84	0.44-7.93	0.4
	PGT145	70% (63)	32% (8)	0.16	0.03-0.84	0.03
	PGT145	37% (33)	24% (6)	0.57	0.15-2.19	0.42

