

	Early Subs Rate - Naïve				Transitional Subs Rate - Naïve				Persistent Subs Rate - Naïve		
	All Subs	Nonsyn Subs	Syn Subs		All Subs	Nonsyn Subs	Syn Subs		All Subs	Nonsyn Subs	Syn Subs
subs/day	3.61 <sup>a</sup>	1.52 <sup>b</sup>	2.14		2.44	0.70	1.74		1.54 <sup>a</sup>	0.28 <sup>b</sup>	1.27
subs/site/year	0.188 <sup>a</sup>	0.079 <sup>b</sup>	0.111		0.127	0.037	0.091		0.080 <sup>a</sup>	0.014 <sup>b</sup>	0.066
	Early Subs Rate - Vaccinated				Transitional Subs Rate - Vaccinated				Persistent Subs Rate - Vaccinated		
subs/day	2.51	1.07	1.43		1.70	0.73	0.97		1.52	0.49	1.03
subs/site/year	0.131	0.056	0.075		0.089	0.038	0.050		0.079	0.026	0.054
	Trans-Persistent Subs Rate - Naïve				1-10 dpi Subs Rates - Terminators						
	All Subs	Nonsyn Subs	Syn Subs		All Subs	Nonsyn Subs	Syn Subs				
subs/day	1.90	0.46	1.44		4.29	1.92	2.50				
subs/site/year	0.099	0.024	0.075		0.224	0.100	0.131				
	Trans-Persistent Subs Rate - Vaccinated				1-10 dpi Subs Rates - Carriers						
subs/day	1.53	0.54	0.99		3.47	1.45	2.02				
subs/site/year	0.080	0.028	0.051		0.181	0.076	0.105				

**Figure S2.** Pairwise differences: Vaccinated vs. Naïve, Carriers vs. Terminators. The number of consensus-level pairwise differences between each sample and the preceding sample (inoculum = 0 dpi) divided by intervening time within each animal. Pairwise values from 0.25 - 0.88 dpi and animals of unknown carrier status omitted. For instances of samples with same dpi - same animal (different tissue) and where both raw and passaged were sequenced, pairwise differences were averaged. <sup>a</sup> = P < 0.05 and <sup>b</sup> = P < 0.005.