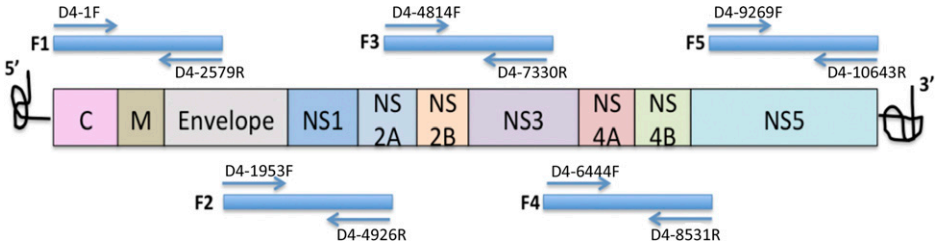
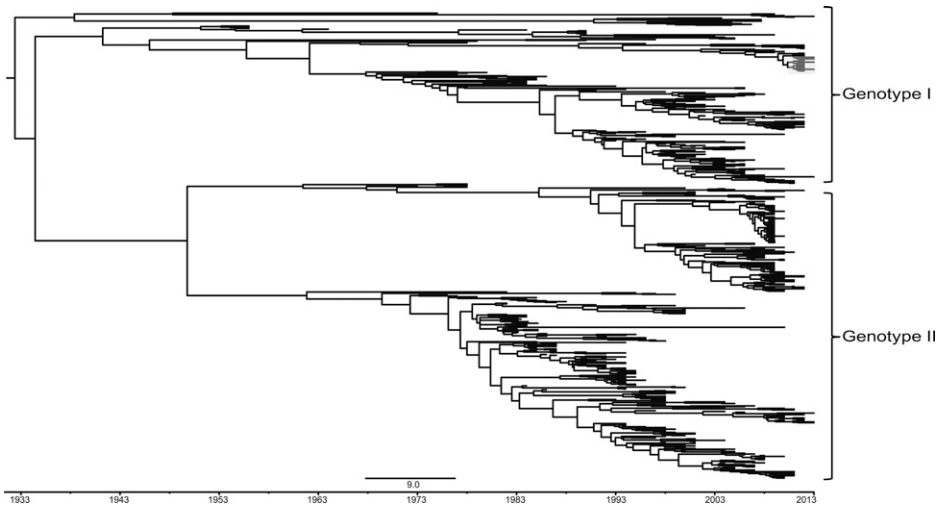


SUPPLEMENTAL FIGURE 1. Schematic diagram of how serotype-fragment-specific primer pairs align over complete dengue virus genome.



SUPPLEMENTAL FIGURE 2. Full temporally structured maximum clade credibility phylogenetic tree for dengue virus-4. Yellow highlight indicates samples from our cohort.

Gene	JQ922560.1	KF041260.1	AY550909	FJ225466	FJ225467	FJ225468	FJ255469	FJ225470	FJ225471
5'	0	0							
	0/0	0/0							
C	1-2	1-2	1-2						
	1.04/1	1.04/1	1.04/1						
prM	1-1	0	1-1						
	1/1	0/0	1/1						
M	0	0	1-1	1-1	1-1	0	0	0	0
	0/0	0/0	1/1	1/1	1/1	0/0	0/0	0/0	0/0
E	4-7	3-7	9-11	0*	0*	0*	0*	0*	0*
	4.35/4	3.91/5	9.52/9	0*/0*	0*/0*	0*/0*	0*/0*	0*/0*	0*/0*
NS1	2-6	1-1							
	2.74/2	1/1							
NS2A	1-3	3-5							
	1.43/1	3.48/3							
NS2B	1-6	0-2							
	1.48/1	0.26/0							
NS3	0-1	4-5							
	0.26/0	4.17/4							
NS4A	1-5	0-2							
	1.22/1	0.35/0							
NS4B	1-3	0-2							
	1.35/1	0.35/0							
NS5	3-17	1-18							
	4.65/3	2.57/2							
3'	1-1	1-1							
	1/1	1/1							

SUPPLEMENTAL FIGURE 3. Amino acid changes between current 23 Sri Lankan sequences and previous Sri Lankan sequences. There are two rows for each gene; the top indicates range of number of changes, the bottom is mean/median.

SUPPLEMENTAL TABLE 1

PCR cycling parameters with serotype-fragment-specific primer pairs

Fragment	PCR primer pair	Denaturing	Melting	Annealing	Amplification	Extension
DENV-4	D4-1F*, D4-2579R*	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
Fragment 1	D4-9F, D4-2107R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
DENV-4	D4-2065F, D4-4246R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
Fragment 2	D4-1953F*, D4-4926R*	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-2968F, D4-4246R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-2968F, D4-6463R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-3836F, D4-6163R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-3836F, D4-7349R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
DENV-4	D4-4226F, D4-6463R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
Fragment 3	D4-4814F*, D4-7330R*	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-5243F, D4-7537R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
DENV-4	D4-6444F*, D4-8531R*	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
Fragment 4	D4-7224F, D4-9708R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
DENV-4	D4-7911F, D4-10626R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
Fragment 5	D4-8512F, D4-10626R	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes
	D4-9269F*, D4-10643R*	95°C, 2 minutes	95°C, 2 minutes	50°C, 20 seconds	72°C, 1:30 minutes	72°C, 3 minutes

DENV = dengue virus; PCR = polymerase chain reaction.

* Primers previously published by Christenbury et al., 2010.

SUPPLEMENTAL TABLE 2

List of sequencing primers used for full-genome sequence

Serotype	Primer	Sequence
DENV-4	d4a3*	5′-TGTGRAARTGGTGGGAGCAAAA-3′
DENV-4	d4a8*	5′-ACYTGCCCTAATTGCTTTTCAAA-3′
DENV-4	d4a14*	5′-TTGGTRAACYACTCCATTTCC-3′
DENV-4	d4a18*	5′-GGGCATTYAATATTGCAGACGCTA-3′
DENV-4	d4a5B*	5′-*TTTGTCGGTCTGGGGGGGTAT*AGAACCTGTTGGATCAACAAC-3′
DENV-4	d4s1C*	5′-*GATGAGGGAAGATGGGG*AGTTGTTAGTCTGTGTGGACCGAC-3′
DENV-4	d4s5*	5′-CTCCGTGTAAAGTCCCCATAGAGA-3′
DENV-4	d4s11*	5′-CCTMGCYATAGAACCAGGAAAAAATC-3′
DENV-4	d4s16*	5′-AGRACAGCTGCTGGGATCATGA-3′
DENV-4	d4s21*	5′-GAAAGACATYCCGCAGTGGGAA-3′
DENV-4	d4s2*	5′-AACAAATGCACYCTYATTGCCA-3′
DENV-4	d4s3*	5′-TTTGAACTGACYAAGACAACAGC-3′
DENV-4	d4s4*	5′-TGGACAGCAGGAGCAGACACAT-3′
DENV-4	d4s6*	5′-GYTCCATTGGCAAGATGTTTGAG-3′
DENV-4	d4a2*	5′-AACYTGGTGYACAGCCTTTCCC-3′
DENV-4	d4a4*	5′-CATGCTGTGTTTCTGCCATCTC-3′
DENV-4	d4a6*	5′-TGGGTGTCTCCATTGTGGACTG-3′
DENV-4	d4a7*	5′-TACATGACCCAGGTRGACGTGAG-3′
DENV-4	d4s7*	5′-GTTGTGTGGYGTCATGGARTGG-3′
DENV-4	d4s8*	5′-CATATGGATGAAATTCCGAGAAGGA-3′
DENV-4	d4s9*	5′-GGAGATTAGGCCCTTGAGTGAAAA-3′
DENV-4	d4s10*	5′-CATTRGTCATGGCTTGGAGGACC-3′
DENV-4	d4s12*	5′-GAAACTGGCRCTGATAACAGTRTCA-3′
DENV-4	d4a9*	5′-TTTCCCRAAYAACCCTCTTTGC-3′
DENV-4	d4a10*	5′-ACCAAACCCACAGCCATTATGC-3′
DENV-4	d4a11*	5′-GAGRCCTCCYAGGATGATAGCAC-3′
DENV-4	d4a12*	5′-ATGAGCATCTGRCTTTCCAGCAC-3′
DENV-4	d4a13*	5′-TCYTGTTDATGATRGGAGARCCAGA-3′
DENV-4	d4a15*	5′-TATTGCAGACGCTAGYCTCGCTG-3′
DENV-4	d4s13*	5′-CTTSTAGTGTCGCRGCTAGAGGATA-3′
DENV-4	d4s14*	5′-TGCYCACTGGACAGAAGCAAAGAT-3′
DENV-4	d4s15*	5′-TAGGTGCTATGACAGCMGGYATCT-3′
DENV-4	d4s17*	5′-ACCTTGACAGCATCCYTAGTCATG-3′
DENV-4	d4a16*	5′-TCAATTGATTGTCTTGTGGGGTC-3′
DENV-4	d4a17*	5′-CTTTCCCCTGTGAAGCACCAT-3′
DENV-4	d4a19*	5′-TCAACTGGATHACTYTCTTTCCCG-3′
DENV-4	d4a20*	5′-TTGTCTTTCCRGCTCCGGGGT-3′
DENV-4	d4s18*	5′-GGTCBTATTACATGGCGACACTCA-3′
DENV-4	d4s19*	5′-GCACAAAGAAACCTGGCAYTATGA-3′
DENV-4	d4s20*	5′-GGAATTTGAAGCCCTGGGTTTT-3′
DENV-4	d4s22*	5′-AAAGACATYCCGCAGTGGGA-3′
DENV-4	d4a21*	5′-CATCTGTTCYGTGATCAGTTCYTCA-3′
DENV-4	d4a22*	5′-ARCCAATTGGCTGTCGTGGT-3′
DENV-4	d4a23*	5′-GARTTCCTGGAYARCGGGCA-3′
DENV-4	d4a24*	5′-CCATCTYTYAGGGCAGACTTGG-3′
DENV-4	d4s23*	5′-GACAAGACTCCAGTCCATTCGTG-3′
DENV-4	d4a25*	5′-TTCCGATCAGRTTCCTGACCTG-3′
DENV-4	D4F1-28F	5′-GTCTGTGTGGACCGACAAGCACAG-3′
DENV-4	D4F1-65F	5′-GCTTGCTTAACACAGTTCTAACAG-3′
DENV-4	D4-2387F	5′-CCTCAATGGCAATGTCATGC-3′
DENV-4	D4-3836F	5′-CCATGACAACGGTGCTTTC-3′
DENV-4	D4-6002F	5′-GATGAAGATCATGCCCACTG-3′
DENV-4	D4-3532R	5′-GTTTCTGATGTACCCTGTCC-3′
DENV-4	D4-6163R	5′-CTCTCCATCAATGGCTTGG-3′
DENV-4	D4-8267R	5′-CCATGGCTCCACCATCTTC-3′
DENV-4	D4-9514R	5′-GGTTATGCATGTCATCTCG-3′

DENV = dengue virus.

* Primers previously published by Christenbury et al., 2010. All other primers are unpublished primers or were designed specifically for this study.