

¹ **Supplementary Materials**

² **Results of Poisson Regression**

³ Poisson regression coefficients, β , of the three Poisson Regression models are summarized
⁴ in Table S1.

Table S1: Results of Poisson regression, β , estimated from three Poisson Regression models. Here, * denotes p -value $\in (0.01, 0.1]$, ** denotes p -value $\in (0.001, 0.01]$ and *** denotes p -value < 0.001 .

Dengue	Lag(τ)	Coeff. of MEI(β_1)	95% CI	R^2	p -value	signf.
	0	0.1837	[0.1047, 0.2627]	0.05474	5.147e-06	***
	1	0.2225	[0.1424, 0.3025]	0.07863	5.133e-08	***
	2	0.2820	[0.2003, 0.3638]	0.12073	1.385e-11	***
	3	0.3417	[0.2580, 0.4253]	0.16859	1.213e-15	***
	4	0.3555	[0.2683, 0.4428]	0.17237	1.376e-15	***
	5	0.3507	[0.2602, 0.4412]	0.16035	3.137e-14	***
	6	0.3065	[0.2146, 0.3984]	0.12191	6.203e-11	***
	7	0.2780	[0.1842, 0.3718]	0.09853	6.216e-09	***
	8	0.2519	[0.1575, 0.3463]	0.08021	1.708e-07	***
	9	0.2724	[0.1774, 0.3674]	0.09281	1.923e-08	***
	10	0.2284	[0.1344, 0.3224]	0.06753	1.921e-06	***
	11	0.1874	[0.0943, 0.2805]	0.04665	7.927e-05	***
GBS	Lag(τ)	Coeff. of MEI(β_2)	95% CI	R^2	p -value	signf.
	0	0.0438	[-0.0361, 0.1238]	9.709e-03	0.2827	
	1	-0.0041	[-0.0852, 0.0770]	8.341e-05	0.9208	
	2	-0.0151	[-0.0978, 0.0675]	1.088e-03	0.7200	
	3	-0.0172	[-0.1015, 0.0670]	1.376e-03	0.6884	
	4	-0.0030	[-0.0894, 0.0835]	3.898e-05	0.9462	
	5	0.0139	[-0.0750, 0.1028]	8.245e-04	0.7595	
	6	0.0206	[-0.0700, 0.1112]	1.750e-03	0.6561	
	7	0.0469	[-0.0459, 0.1396]	8.661e-03	0.3223	
	8	0.0848	[-0.0096, 0.1792]	2.743e-02	0.0785	*
	9	0.1137	[0.0185, 0.2088]	4.929e-02	0.0192	*
	10	0.1139	[0.0185, 0.2092]	4.930e-02	0.0192	*
	11	0.0738	[-0.0207, 0.1684]	2.124e-02	0.1261	
GBS	Lag(τ)	Coeff. of Dengue(β_3)	95% CI	R^2	p -value	signf.
	0	-0.0146	[-0.0306, 0.0014]	0.0279	7.436e-02	*
	1	-0.0067	[-0.0222, 0.0088]	0.0062	3.968e-01	
	2	0.0103	[-0.0041, 0.0247]	0.0160	1.621e-01	
	3	0.0160	[0.0018, 0.0302]	0.0393	2.737e-02	*
	4	0.0134	[-0.0013, 0.0280]	0.0263	7.309e-02	*
	5	0.0280	[0.0141, 0.0419]	0.1211	8.017e-05	***
	6	0.0327	[0.0191, 0.0463]	0.1682	2.479e-06	***
	7	0.0289	[0.0149, 0.0428]	0.12706	5.191e-05	***
	8	0.0098	[-0.0055, 0.0252]	0.0134	2.104e-01	
	9	0.0140	[-0.0011, 0.0291]	0.0282	6.882e-02	*
	10	-0.0054	[-0.0221, 0.0112]	0.0037	5.228e-01	
	11	0.0024	[-0.0137, 0.0184]	0.0008	7.718e-01	