

**S2 Table. Summary statistics of the marginal posterior distributions for parameters of the full model based on the analysis the Besançon data.**

Parameter	Symbol	Median (95% credibility interval)*					
		ICU A		ICU B		ICUs combined	
Background coefficient	$\alpha$	0.011	(0.008, 0.014)	0.008	(0.006, 0.011)	0.009	(0.007, 0.011)
Cross-transmission coefficient	$\beta$	0.013	(0, 0.033)	0.022	(0, 0.011)	0.018	(0, 0.034)
Environmental coefficient	$\epsilon$	201.1	(0.018, 832.829)	176.7	(0.009, 811.6)	209.0	(0.02, 784.5)
Decay rate	$\mu$	1415.8	(65.6, 4273.8)	1396.9	(26.4, 3992.2)	1419.2	(43.7, 4524.0)
Sensitivity	$\phi$ (%)	50.6	(48.0, 53.1)	60.5	(58.9, 62.1)	57.6	(56.2, 58.9)
Importation probability	$f$ (%)	5.5	(4.5, 6.6)	7.5	(6.6, 8.4)	6.4	(5.7, 7.2)
Fraction colonized	$p_{\text{col}}$ (%)	22.2	(21.3, 23.1)	23.2	(22.7, 23.6)	22.4	(21.9, 22.8)
<b>Contributions</b>							
Background	$R_{\text{background}}$ (%)	62.2	(44.8, 79.7)	50.4	(35.6, 65.2)	57.6	(45.5, 67.9)
Cross-transmission	$R_{\text{crossT}}$ (%)	37.2	(20.4, 54.9)	49.0	(34.0, 63.1)	42.7	(31.9, 54.0)
Env. cont. after discharge	$R_{\text{env}}$ (%)	0.006	(0, 0.013)	0.005	(0, 0.013)	0.006	(0, 0.012)

\*Highest posterior density interval