Table S1. Baseline dose biases (viral particles) compared with sensitivity analysis model dose biases (viral particles) where the effects of 25% increases and decreases in geometric mean (geomean), geometric standard deviation (geosd), and limit of detection (LOD) on biases were compared*

Altered GeoMean						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	0.32 (0.0069)	-11.30 (8.21)	0.46 (0.0098)	0.26 (0.039)	**0.22 (0.043)**
	baseline	0.32 (0.0071)	-14.74 (10.65)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.32 (0.0072)	-16.22 (12.09)	0.47 (0.014)	0.25 (0.040)	**0.23 (0.043)**
Medium (35%)	25% decrease	1.13 (0.012)	-4.57 (6.78)	1.64 (0.037)	**0.70 (0.091)**	0.80 (0.077)
	baseline	1.13 (0.015)	-6.72 (8.97)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.13 (0.015)	-7.42 (9.68)	1.65 (0.057)	**0.68 (0.093)**	0.80 (0.078)
High (65%)	25% decrease	2.10 (0.017)	3.50 (9.12)	3.10 (0.13)	**0.79 (0.14)**	1.48 (0.11)
	baseline	2.09 (0.018)	2.56 (10.17)	3.09 (0.12)	**0.77 (0.14)**	1.48 (0.11)
	25% increase	2.09 (0.019)	2.90 (11.07)	3.14 (0.17)	**0.76 (0.14)**	1.48 (0.11)
Severe (90%)	25% decrease	2.90 (0.019)	26.03 (115.20)	4.81 (0.85)	**0.42 (0.17)**	2.04 (0.13)
	baseline	2.90 (0.022)	92.45 (1105.51)	4.70 (0.67)	**0.42 (0.19)**	2.04 (0.13)
	25% increase	2.89 (0.024)	176.84 (1977.85)	4.95 (0.88)	**0.40 (0.19)**	2.04 (0.13)
Real Life Example (97%	25% decrease	3.13 (0.020)	4.76 (1.47×10^{12})	8.53 (7.21)	**0.27 (0.35)**	2.21 (0.13)
	baseline	3.12 (0.022)	2.94×10^{8} (8.64×10^{9})	8.36 (7.20)	**0.25 (0.33)**	2.20 (0.13)
	25% increase	3.12 (0.025)	1.61×10^{9} (5.00×10^{10})	8.55 (7.69)	**0.25 (0.33)**	2.20 (0.13)
Altered GeoSD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2

Low (10%)	25% decrease	0.32 (0.0054)	-5.03 (3.35)	0.46 (0.0088)	0.27 (0.037)	**0.23 (0.043)**
	baseline	0.32 (0.0071)	-14.74 (10.65)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.32 (0.0082)	-30.99 (24.36)	0.47 (0.013)	0.24 (0.040)	**0.23 (0.043)**
Medium (35%)	25% decrease	1.13 (0.011)	-1.41 (2.78)	1.63 (0.044)	**0.75 (0.089)**	0.80 (0.077)
	baseline	1.13 (0.015)	-6.72 (8.97)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.13 (0.015)	-15.48 (20.25)	1.65 (0.051)	**0.64 (0.1096)**	0.79 (0.077)
High (65%)	25% decrease	2.10 (0.016)	2.11 (3.33)	3.09 (0.16)	**0.87 (0.14)**	1.48 (0.11)
	baseline	2.09 (0.018)	2.56 (10.17)	3.09 (0.12)	**0.77 (0.14)**	1.48 (0.11)
	25% increase	2.09 (0.020)	5.11 (24.13)	3.14 (0.16)	**0.71 (0.13)**	1.48 (0.11)
Severe (90%)	25% decrease	2.90 (0.019)	12.93 (114.53)	4.81 (0.85)	**0.49 (0.20)**	2.05 (0.13)
	baseline	2.90 (0.022)	92.45 (1105.51)	4.70 (0.67)	**0.42 (0.19)**	2.04 (0.13)
	25% increase	2.89 (0.024)	372.88 (3413.11)	4.99 (0.96)	**0.36 (0.17)**	2.03 (0.13)
Real Life Example (97%	25% decrease	3.13 (0.019)	1.79×10^6 (4.28×10^7)	7.90 (5.44)	**0.32 (0.38)**	2.21 (0.13)
	baseline	3.12 (0.022)	2.94×10^8 (8.64×10^9)	8.36 (7.20)	**0.25 (0.33)**	2.20 (0.13)
	25% increase	3.12 (0.025)	9.46×10^{17} (2.99×10^{19})	9.07 (9.11)	**0.24 (0.34)**	2.20 (0.13)
Altered LOD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	0.24 (0.0059)	-13.00 (9.68)	0.35 (0.0083)	0.19 (0.030)	**0.17 (0.033)**
	baseline	0.32 (0.0071)	-14.74 (10.65)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.40 (0.0083)	-15.41 (11.11)	0.58 (0.011)	0.32 (0.049)	**0.28 (0.054)**

Medium (35%)	25% decrease	0.84 (0.012)	-6.20 (8.16)	1.22 (0.029)	**0.51 (0.071)**	0.60 (0.059)
	baseline	1.13 (0.015)	-6.72 (8.97)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.41 (0.016)	-6.00 (8.84)	2.03 (0.039)	**0.87 (0.12)**	1.00 (0.097)
High (65%)	25% decrease	1.57 (0.015)	1.82 (8.78)	2.32 (0.12)	**0.57 (0.10)**	1.11 (0.08)
	baseline	2.09 (0.018)	2.56 (10.17)	3.09 (0.12)	**0.77 (0.14)**	1.48 (0.11)
	25% increase	2.62 (0.022)	4.10 (12.18)	3.83 (0.15)	**0.98 (0.17)**	1.85 (0.13)
Severe (90%)	25% decrease	2.17 (0.018)	94.5 (864.08)	3.66 (0.67)	**0.30 (0.14)**	1.53 (0.10)
	baseline	2.90 (0.022)	92.45 (1105.51)	4.70 (0.67)	**0.42 (0.19)**	2.04 (0.13)
	25% increase	3.63 (0.026)	43.84 (202.42)	5.98 (1.10)	**0.53 (0.24)**	2.55 (0.16)
Real Life Example (97%	25% decrease	2.34 (0.018)	5.56×10^{13} (1.75×10^{15})	6.56 (7.34)	**0.19 (0.24)**	1.65 (0.099)
	baseline	3.12 (0.022)	2.94×10^{8} (8.64×10^{9})	8.36 (7.20)	**0.25 (0.33)**	2.20 (0.13)
	25% increase	3.91 (0.027)	9.23×10^{9} (2.92×10^{11})	10.22 (8.57)	**0.33 (0.44)**	2.76 (0.17)

*Bolded values indicate that these were the closest to the known values for that degree of censoring

Table S2. Baseline infection risk biases compared with sensitivity analysis model infection risk biases where the effects of 25% increases and decreases in geometric mean (geomean), geometric standard deviation (geosd), and limit of detection (LOD) on biases were compared*

Altered GeoMean						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	1.01×10^{-3} (5.81×10^{-5})	-3.54×10^{-2} ($2.45 \times ^{-2}$)	1.46×10^{-3} (8.35×10^{-5})	8.07×10^{-4} (1.39×10^{-4})	**7.07×10^{-4} (1.40×10^{-4})**
	baseline	9.93×10^{-4} (6.61×10^{-5})	-4.55×10^{-2} (3.091×10^{-2})	1.43×10^{-3} (9.46×10^{-5})	7.78×10^{-4} (1.41×10^{-4})	**6.99×10^{-4} (1.40×10^{4})**
	25% increase	9.79×10^{-4} (7.39×10^{-5})	-4.92×10^{-2} (3.37×10^{-2})	1.42×10^{-3} (1.08×10^{-4})	7.65×10^{-4} (1.47×10^{-4})	**6.89×10^{-4} (1.42×10^{-4})**
Medium (35%)	25% decrease	3.71×10^{-3} (1.74×10^{-4})	-1.48×10^{-2} (2.16×10^{-2})	5.37×10^{-3} (2.73×10^{-4})	**2.30×10^{-3} (3.58×10^{-4})**	2.62×10^{-3} (2.82×10^{-4})
	baseline	3.66×10^{-3} (2.13×10^{-4})	-2.14×10^{-2} (2.75×10^{-2})	5.28×10^{-3} (3.26×10^{-4})	**2.23×10^{-3} (3.81×10^{-4})**	2.58×10^{-3} (2.84×10^{-4})
	25% increase	3.62×10^{-3} (2.22×10^{-4})	-2.35×10^{-2} (3.00×10^{-2})	5.28×10^{-3} (3.52×10^{-4})	**2.18×10^{-3} (3.74×10^{-4})**	2.56×10^{-3} (2.98×10^{-4})
High (65%)	25% decrease	7.34×10^{-3} (2.44×10^{-4})	1.14×10^{-2} (2.75×10^{-2})	1.07×10^{-2} (5.51×10^{-4})	**2.76×10^{-3} (5.27×10^{-4})**	5.16×10^{-3} (4.00×10^{-4})
	baseline	7.23×10^{-3} (2.92×10^{-4})	8.11×10^{-3} (3.072×10^{-2})	1.065×10^{-2} (5.77×10^{-4})	**2.68×10^{-3} (5.54×10^{-4})**	5.10×10^{-3} (4.22×10^{-4})
	25% increase	7.25×10^{-3} (3.41×10^{-4})	9.16×10^{-3}	1.08×10^{-2}	**2.63×10^{-3}**	5.06×10^{-3}

			(3.41 x 10^{-2})	(7.38 x 10^{-4})	**(5.67 x 10^{-4})**	(4.44 x 10^{-4})
Severe (90%)	25% decrease	1.106x 10^{-2} (2.05 x 10^{-4})	5.70x 10^{-2} (1.37 x 10^{-1})	1.7 5x 10^{-2} (3.01 x 10^{-3})	**1.54 x 10^{-3} (6.41 x 10^{-4})**	7.47 x 10^{-3} (4.95 x 10^{-4})
	baseline	1.05 x 10^{-2} (2.48 x 10^{-4})	6.37 x 10^{-2} (1.49 x 10^{-1})	1.70 x 10^{-2} (2.38 x 10^{-3})	**1.55 x 10^{-3} (7.29 x 10^{-4})**	7.44 x 10^{-3} (4.98 x 10^{-4})
	25% increase	1.05 x 10^{-2} (2.74 x 10^{-4})	8.53 x 10^{-2} (1.86 x 10^{-1})	1.79 x 10^{-2} (3.12 x 10^{-3})	**1.47 x 10^{-3} (7.29 x 10^{-4})**	7.40 x 10^{-3} (5.05 x 10^{-4})
Real Life Example (97%	25% decrease	1.16 x 10^{-2} (1.36 x 10^{-4})	1.59 x 10^{-1} (3.20 x 10^{-1})	3.08 x 10^{-2} (2.41 x 10^{-2})	**1.01 x 10^{-3} (1.30 x 10^{-3})**	8.17 x 10^{-3} (4.94 x 10^{-4})
	baseline	1.15 x 10^{-2} (1.55 x 10^{-4})	1.77 x 10^{-1} (3.36 x 10^{-1})	3.02 x 10^{-2} (2.39 x 10^{-2})	**9.48 x 10^{-4} (1.23 x 10^{-3})**	8.16 x 10^{-3} (4.95 x 10^{-4})
	25% increase	1.15 x 10^{-2} (1.61 x 10^{-4})	1.83 x 10^{-1} (3.39 x 10^{-1})	3.08 x 10^{-2} (2.52 x 10^{-2})	**9.34 x 10^{-4} (1.22 x 10^{-3})**	8.13 x 10^{-3} (5.01 x 10^{-4})
Altered GeoSD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	1.07 x 10^{-3} (3.48 x 10^{-5})	-1.67 x 10^{-2} (1.09 x 10^{-2})	1.53 x 10^{-3} (5.03 x 10^{-5})	9.11 x 10^{-4} (1.32 x 10^{-4})	**7.52 x 10^{-4} (1.43 x 10^{-4})**
	baseline	9.93 x 10^{-4} (6.61 x 10^{-5})	-4.55 x 10^{-2} (3.091 x 10^{-2})	1.43 x 10^{-3} (9.46 x 10^{-5})	7.78 x 10^{-4} (1.41 x 10^{-4})	**6.99 x 10^{-4} (1.40 x 10^{4})**
	25% increase	8.92 x 10^{-4} (1.12 x 10^{-4})	-8.59 x 10^{-2}	1.30 x 10^{-3}	6.70 x 10^{-4} (1.52 x 10^{-4})	**6.22 x 10^{-4} (1.42 x 10^{-4})**

			(5.99 x 10^{-2})	(1.62 x 10^{-4})		
Medium (35%)	25% decrease	3.87 x 10^{-3} (9.71 x 10^{-5})	-4.81 x 10^{-3} (9.43 x 10^{-3})	5.57 x 10^{-3} (1.82 x 10^{-4})	**2.58 x 10^{-3} (3.39 x 10^{-4})**	2.74 x 10^{-3} (2.74 x 10^{-4})
	baseline	3.66 x 10^{-3} (2.13 x 10^{-4})	-2.14 x 10^{-2} (2.75 x 10^{-2})	5.28 x 10^{-3} (3.26 x 10^{-4})	**2.23 x 10^{-3} (3.81 x 10^{-4})**	2.58 x 10^{-3} (2.84 x 10^{-4})
	25% increase	3.38 x 10^{-3} (3.70 x 10^{-4})	-4.48 x 10^{-2} (5.46 x 10^{-2})	4.96 x 10^{-3} (5.55 x 10^{-4})	**1.95 x 10^{-3} (4.24 x 10^{-4})**	2.39 x 10^{-3} (3.38 x 10^{-4})
High (65%)	25% decrease	7.47 x 10^{-3} (1.35 x 10^{-4})	7.39 x 10^{-3} (1.14 x 10^{-2})	1.10 x 10^{-2} (5.77 x 10^{-4})	**3.11 x 10^{-3} (5.32 x 10^{-4})**	5.29 x 10^{-3} (3.84 x 10^{-4})
	baseline	7.23 x 10^{-3} (2.92 x 10^{-4})	8.11 x 10^{-3} (3.072 x 10^{-2})	1.065 x 10^{-2} (5.77 x 10^{-4})	**2.68 x 10^{-3} (5.54 x 10^{-4})**	5.10 x 10^{-3} (4.22 x 10^{-4})
	25% increase	6.94 x 10^{-3} (5.33 x 10^{-4})	1.41 x 10^{-2} (5.89 x 10^{-2})	1.04 x 10^{-2} (9.09 x 10^{-4})	**2.36 x 10^{-3} (5.58 x 10^{-4})**	4.91 x 10^{-3} (5.14 x 10^{-4})
Severe (90%)	25% decrease	1.07 x 10^{-2} (1.18 x 10^{-4})	2.71 x 10^{-2} (8.28 x 10^{-2})	1.76 x 10^{-2} (3.03 x 10^{-3})	**1.81 x 10^{-3} (7.59 x 10^{-4})**	7.53 x 10^{-3} (4.76 x 10^{-4})
	baseline	1.05 x 10^{-2} (2.48 x 10^{-4})	6.37 x 10^{-2} (1.49 x 10^{-1})	1.70 x 10^{-2} (2.38 x 10^{-3})	**1.55 x 10^{-3} (7.29 x 10^{-4})**	7.44 x 10^{-3} (4.98 x 10^{-4})
	25% increase	1.04 x 10^{-2} (4.09 x 10^{-4})	1.22 x 10^{-1} (2.35 x 10^{-1})	1.79 x 10^{-2} (3.37 x 10^{-3})	**1.33 x 10^{-3} (6.26 x 10^{-4})**	7.34 x 10^{-3} (5.50 x 10^{-4})
	25% decrease	1.16 x 10^{-2} (9.08 x 10^{-5})	9.09 x 10^{-2}	2.88 x 10^{-3}	**1.18 x 10^{-3}**	8.20 x 10^{-3}

Real Life Example (97%			(2.44 x 10^{-1})	(1.86 x 10^{-5})	**(1.43 x 10^{-3})**	(4.85 x 10^{-4})
	baseline	1.15 x 10^{-2} (1.55 x 10^{-4})	1.77 x 10^{-1} (3.36 x 10^{-1})	3.02 x 10^{-2} (2.39 x 10^{-2})	**9.48 x 10^{-4} (1.23 x 10^{-3})**	8.16 x 10^{-3} (4.95 x 10^{-4})
	25% increase	1.14 x 10^{-2} (2.83 x 10^{-4})	2.19 x 10^{-1} (3.69 x 10^{-1})	3.24 x 10^{-2} (2.84 x 10^{-2})	**8.86 x 10^{-4} (1.26 x 10^{-3})**	8.10 x 10^{-3} (5.21 x 10^{-4})
Altered LOD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	7.69 x 10^{-4} (4.81 x 10^{-5})	-4.14 x 10^{-2} (2.90 x 10^{-2})	1.11 x 10^{-3} (6.82 x 10^{-5})	6.00 x 10^{-4} (1.11 x 10^{-4})	**5.38 x 10^{-4} (1.10 x 10^{-4})**
	baseline	9.93 x 10^{-4} (6.61 x 10^{-5})	-4.55 x 10^{-2} (3.091 x 10^{-2})	1.43 x 10^{-3} (9.46 x 10^{-5})	7.78 x 10^{-4} (1.41 x 10^{-4})	**6.99 x 10^{-4} (1.40 x 10^{4})**
	25% increase	1.21 x 10^{-3} (8.83 x 10^{-5})	-4.61 x 10^{-2} (3.11 x 10^{-2})	1.73 x 10^{-3} (1.25 x 10^{-4})	9.58 x 10^{-4} (1.75 x 10^{-4})	**8.43 x 10^{-4} (1.69 x 10^{-4})**
Medium (35%)	25% decrease	2.83 x 10^{-3} (1.44 x 10^{-4})	-2.03 x 10^{-2} (2.59 x 10^{-2})	4.06 x 10^{-3} (2.24 x 10^{-4})	**1.69 x 10^{-3} (2.83 x 10^{-4})**	1.98 x 10^{-3} (2.21 x 10^{-4})
	baseline	3.66 x 10^{-3} (2.13 x 10^{-4})	-2.14 x 10^{-2} (2.75 x 10^{-2})	5.28 x 10^{-3} (3.26 x 10^{-4})	**2.23 x 10^{-3} (3.81 x 10^{-4})**	2.58 x 10^{-3} (2.84 x 10^{-4})
	25% increase	4.48 x 10^{-3} (2.69 x 10^{-4})	-1.88 x 10^{-2} (2.69 x 10^{-2})	6.45 x 10^{-3} (3.92 x 10^{-4})	**2.77 x 10^{-3} (4.63 x 10^{-4})**	3.17 x 10^{-3} (3.59 x 10^{-4})
High (65%)	25% decrease	5.48 x 10^{-3} (2.06 x 10^{-4})	5.96 x 10^{-3}	8.10 x 10^{-3}	**2.00 x 10^{-3} (4.11 x 10^{-4})**	3.88 x 10^{-3} (3.14 x 10^{-4})

			(2.80 x 10^{-2})	(4.83 x 10^{-4})		
	baseline	7.23 x 10^{-3} (2.92 x 10^{-4})	8.11 x 10^{-3} (3.072 x 10^{-2})	1.065 x 10^{-2} (5.77 x 10^{-4})	**2.68 x 10^{-3} (5.54 x 10^{-4})**	5.10 x 10^{-3} (4.22 x 10^{-4})
	25% increase	8.92 x 10^{-3} (3.91 x 10^{-4})	1.28 x 10^{-2} (3.53 x 10^{-2})	1.30 x 10^{-2} (7.35 x 10^{-4})	**3.36 x 10^{-3} (6.86 x 10^{-4})**	6.32 x 10^{-3} (5.21 x 10^{-4})
Severe (90%)	25% decrease	7.93 x 10^{-3} (1.70 x 10^{-4})	6.62 x 10^{-2} (1.65 x 10^{-1})	1.34 x 10^{-2} (2.38 x 10^{-3})	**1.11 x 10^{-3} (5.14 x 10^{-4})**	5.59 x 10^{-3} (3.74 x 10^{-4})
	baseline	1.05 x 10^{-2} (2.48 x 10^{-4})	6.37 x 10^{-2} (1.49 x 10^{-1})	1.70 x 10^{-2} (2.38 x 10^{-3})	**1.55 x 10^{-3} (7.29 x 10^{-4})**	7.44 x 10^{-3} (4.98 x 10^{-4})
	25% increase	1.31 x 10^{-2} (3.21 x 10^{-4})	7.05 x 10^{-2} (1.60 x 10^{-1})	2.16 x 10^{-2} (3.85 x 10^{-3})	**1.93 x 10^{-3} (8.91 x 10^{-4})**	9.27 x 10^{-3} (6.27 x 10^{-4})
Real Life Example (97%	25% decrease	8.69 x 10^{-3} (1.21 x 10^{-4})	1.57 x 10^{-3} (3.24 x 10^{-1})	2.37 x 10^{-2} (2.37 x 10^{-2})	**7.11 x 10^{-4} (8.98 x 10^{-4})**	6.11 x 10^{-3} (3.75 x 10^{-4})
	baseline	1.15 x 10^{-2} (1.55 x 10^{-4})	1.77 x 10^{-1} (3.36 x 10^{-1})	3.02 x 10^{-2} (2.39 x 10^{-2})	**9.48 x 10^{-4} (1.23 x 10^{-3})**	8.16 x 10^{-3} (4.95 x 10^{-4})
	25% increase	1.44 x 10^{-2} (2.07 x 10^{-4})	1.68 x 10^{-1} (3.25 x 10^{-1})	3.67 x 10^{-2} (2.76 x 10^{-2})	**1.22 x 10^{-3} (1.64 x 10^{-3})**	1.02 x 10^{-2} (6.17 x 10^{-4})

*Bolded values indicate that these were the closest to the known values for that degree of censoring

Table S3. Baseline RMSE biases (viral particles) compared with sensitivity analysis model dose RMSE (viral particles) where the effects of 25% increases and decreases in geometric mean (geomean), geometric standard deviation (geosd), and limit of detection (LOD) on RMSEs were compared*

Altered GeoMean						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	0.32 (0.0069)	11.31 (8.21)	0.46 (0.0098)	0.26 (0.039)	**0.23 (0.043)**
	baseline	0.32 (0.0071)	14.75 (10.63)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.32 (0.0072)	16.23 (12.08)	0.47 (0.014)	0.25 (0.040)	**0.23 (0.043)**
Medium (35%)	25% decrease	0.23 (0.012)	5.55 (6.01)	1.64 (0.037)	**0.70 (0.091)**	0.80 (0.078)
	baseline	1.13 (0.014)	7.51 (8.32)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.13 (0.015)	8.36 (8.89)	1.65 (0.057)	**0.68 (0.093)**	0.80 (0.078)
High (65%)	25% decrease	2.10 (0.017)	5.44 (8.11)	3.09 (0.13)	**0.79 (0.14)**	1.48 (0.11)
	baseline	2.093 (0.018)	5.79 (8.74)	3.087 (0.12)	**0.78 (0.14)**	1.48 (0.11)
	25% increase	2.09 (0.019)	6.88 (9.14)	3.14 (0.17)	**0.76 (0.14)**	1.48 (0.11)
Severe (90%)	25% decrease	2.90 (0.019)	26.26 (115.15)	4.81 (0.85)	**0.42 (0.17)**	2.044 (0.13)
	baseline	2.90 (0.022)	92.64 (1105.50)	4.70 (0.67)	**0.42 (0.19)**	2.041 (0.13)
	25% increase	2.89 (0.024)	177.09 (1977.83)	4.95 (0.88)	**0.40 (0.19)**	2.04 (0.13)
Real Life Example (97%	25% decrease	3.13 (0.020)	4.76×10^{10} (1.47×10^{12})	8.53 (7.21)	**0.27 (0.35)**	2.21 (0.13)
	baseline	3.12 (0.022)	2.94×10^{8} (8.64×10^{9})	8.36 (7.20)	**0.26 (0.33)**	2.20 (0.13)
	25% increase	3.12 (0.025)	1.61×10^{9} (4.98×10^{10})	8.55 (7.69)	**0.25 (0.33)**	2.20 (0.13)

Altered GeoSD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	0.32 (0.0054)	5.03 (3.34)	0.46 (0.0088)	0.27 (0.037)	**0.23 (0.043)**
	baseline	0.32 (0.0071)	14.75 (10.63)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.32 (0.0082)	30.99 (24.36)	0.47 (0.013)	0.24 (0.040)	**0.22 (0.043)**
Medium (35%)	25% decrease	1.13 (0.011)	2.23 (2.18)	1.63 (0.044)	**0.75 (0.089)**	0.80 (0.077)
	baseline	1.13 (0.014)	7.51 (8.32)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.12 (0.015)	16.62 (19.33)	1.65 (0.051)	**0.64 (0.096)**	0.79 (0.077)
High (65%)	25% decrease	2.10 (0.016)	2.74 (2.83)	3.09 (0.16)	**0.87 (0.14)**	1.48 (0.11)
	baseline	2.093 (0.018)	5.79 (8.74)	3.087 (0.12)	**0.78 (0.14)**	1.48 (0.11)
	25% increase	2.09 (0.020)	12.67 (21.16)	3.14 (0.16)	**0.71 (0.13)**	1.47 (0.11)
Severe (90%)	25% decrease	2.90 (0.019)	13.02 (114.51)	4.81 (0.85)	**0.49 (0.20)**	2.05 (0.13)
	baseline	2.90 (0.022)	92.64 (1105.50)	4.70 (0.67)	**0.42 (0.19)**	2.041 (0.13)
	25% increase	2.89 (0.02)	373.39 (3413.05)	4.99 (0.96)	**0.36 (0.17)**	2.03 (0.13)
Real Life Example (97%	25% decrease	3.13 (0.019)	1.79×10^{6} (4.28×10^{7})	7.90 (5.44)	**0.32 (0.38)**	2.21 (0.13)
	baseline	3.12 (0.022)	2.94×10^{8} (8.64×10^{9})	8.36 (7.20)	**0.26 (0.33)**	2.20 (0.13)
	25% increase	3.12 (0.025)	9.46×10^{17} (2.99×10^{19})	9.07 (9.11)	**0.24 (0.34)**	2.20 (0.13)
Altered LOD						

Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	0.24 (0.0059)	13.01 (9.67)	0.35 (0.0083)	0.19 (0.030)	**0.17 (0.033)**
	baseline	0.32 (0.0071)	14.75 (10.63)	0.46 (0.010)	0.25 (0.039)	**0.23 (0.043)**
	25% increase	0.40 (0.0083)	15.41 (11.11)	0.58 (0.011)	0.32 (0.049)	**0.28 (0.054)**
Medium (35%)	25% decrease	0.84 (0.012)	6.93 (7.56)	1.22 (0.029)	**0.50 (0.071)**	0.60 (0.059)
	baseline	1.13 (0.014)	7.51 (8.32)	1.63 (0.038)	**0.68 (0.095)**	0.80 (0.078)
	25% increase	1.41 (0.016)	7.35 (7.74)	2.03 (0.039)	**0.87 (0.12)**	1.00 (0.097)
High (65%)	25% decrease	1.57 (0.015)	5.20 (7.30)	2.32 (0.12)	**0.57 (0.10)**	1.11 (0.081)
	baseline	2.093 (0.018)	5.79 (8.74)	3.087 (0.12)	**0.78 (0.14)**	1.48 (0.11)
	25% increase	2.62 (0.022)	7.18 (10.66)	3.83 (0.15)	**0.98 (0.17)**	1.85 (0.13)
Severe (90%)	25% decrease	2.17 (0.018)	94.8 (864.05)	3.66 (0.67)	**0.30 (0.14)**	1.53 (0.10)
	baseline	2.90 (0.022)	92.64 (1105.50)	4.70 (0.67)	**0.42 (0.19)**	2.041 (0.13)
	25% increase	3.63 (0.026)	44.12 (202.36)	5.98 (1.10)	**0.53 (0.24)**	2.55 (0.097)
Real Life Example (97%	25% decrease	2.34 (0.018)	5.56×10^{13} (1.75×10^{15})	6.56 (7.34)	**0.19 (0.24)**	1.65 (0.16)
	baseline	3.12 (0.022)	2.94×10^{8} (8.64×10^{9})	8.36 (7.20)	**0.26 (0.33)**	2.20 (0.13)
	25% increase	3.91 (0.027)	9.23×10^{9} (2.92×10^{11})	10.22 (8.57)	**0.33 (0.44)**	2.76 (0.097)

*Bolded values indicate that these were the closest to the known values for that degree of censoring

Table S4. Baseline infection risk RMSE compared with sensitivity analysis model infection risk RMSE where the effects of 25% increases and decreases in geometric mean (geomean), geometric standard deviation (geosd), and limit of detection (LOD) on RMSEs were compared*

Altered GeoMean						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	1.01×10^{-3} (5.81×10^{-5})	3.54×10^{-2} (2.45×10^{-2})	1.46×10^{-3} (8.35×10^{-5})	8.07×10^{-4} (1.39×10^{-4})	**7.07×10^{-4} (1.40×10^{-4})**
	baseline	9.99×10^{-4} (6.61×10^{-5})	4.56×10^{-2} (3.09×10^{-2})	1.43×10^{-3} (9.46×10^{-5})	7.78×10^{-4} (1.41×10^{-4})	**6.94×10^{-4} (1.39×10^{-4})**
	25% increase	9.79×10^{-4} (7.39×10^{-5})	04.93×10^{-2} (3.37×10^{-2})	1.42×10^{-3} (1.08×10^{-4})	7.65×10^{-4} (1.47×10^{-4})	**6.89×10^{-4} (1.42×10^{-4})**
Medium (35%)	25% decrease	3.71×10^{-4} (1.74×10^{-4})	1.80×10^{-2} (1.90×10^{-2})	5.37×10^{-3} (2.73×10^{-4})	**2.30×10^{-3} (3.58×10^{-4})**	2.62×10^{-3} (2.82×10^{-4})
	baseline	3.66×10^{-3} (2.13×10^{-4})	2.40×10^{-2} (2.53×10^{-2})	5.28×10^{-3} (3.26×10^{-4}	**2.23×10^{-3} (3.81×10^{-4})**	2.59×10^{-3} (2.97×10^{-4})
	25% increase	3.62×10^{-3} (2.22×10^{-4})	2.64×10^{-2} (2.70×10^{-2})	5.28×10^{-3} (3.52×10^{-4})	**2.18×10^{-3} (3.74×10^{-4})**	2.56×10^{-3} (2.98×10^{-4})
High (65%)	25% decrease	7.29×10^{-3} (2.44×10^{-4})	1.81×10^{-2} (2.36×10^{-2})	1.07×10^{-2} (5.51×10^{-4})	**2.76×10^{-3} (5.27×10^{-4})**	5.16×10^{-3} (4.00×10^{-4})
	baseline	7.23×10^{-3} (2.92×10^{-4})	1.91×10^{-2} (2.54×10^{-2})	1.06×10^{-2} (5.77×10^{-4})	**2.70×10^{-3} (5.55×10^{-4})**	5.12×10^{-3} (4.25×10^{-4})

	25% increase	7.17×10^{-3} (3.41×10^{-4})	2.24×10^{-2} (2.73×10^{-2})	1.08×10^{-2} (7.38×10^{-4})	**2.63×10^{-3} (5.67×10^{-4})**	5.06×10^{-3} (4.43×10^{-4})
Severe (90%)	25% decrease	1.06×10^{-2} (2.05×10^{-4})	5.78×10^{-2} (1.37×10^{-1})	1.75×10^{-2} (3.01×10^{-3})	**1.54×10^{-3} (6.41×10^{-4})**	7.47×10^{-3} (4.95×10^{-4})
	baseline	1.05×10^{-2} (2.48×10^{-4})	6.43×10^{-2} (1.48×10^{-1})	1.70×10^{-2} (2.38×10^{-3})	**1.55×10^{-3} (7.29×10^{-4})**	7.44×10^{-3} (4.98×10^{-4})
	25% increase	1.05×10^{-2} (2.74×10^{-4})	8.53×10^{-2} (1.86×10^{-1})	1.79×10^{-2} (3.12×10^{-3})	**1.47×10^{-3} (7.29×10^{-4})**	7.40×10^{-3} (5.05×10^{-4})
Real Life Example (97%	25% decrease	1.16×10^{-2} (1.36×10^{-4})	1.59×10^{-1} (3.20×10^{-1})	3.08×10^{-2} (2.41×10^{-2})	**1.01×10^{-3} (1.30×10^{-3})**	8.17×10^{-3} (4.94×10^{-4})
	baseline	1.15×10^{-2} (1.55×10^{-4})	1.77×10^{-1} (3.4×10^{-1})	3.02×10^{-2} (2.39×10^{-2})	**9.55×10^{-4} (1.22×10^{-3})**	8.15×10^{-3} (4.95×10^{-4})
	25% increase	1.15×10^{-2} (1.61×10^{-4})	1.83×10^{-2} (3.39×10^{-1})	3.08×10^{-2} (2.52×10^{-2})	**9.45×10^{-4} (1.21×10^{-3})**	8.13×10^{-3} (5.01×10^{-4})
Altered GeoSD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	1.07×10^{-3} (3.48×10^{-5})	1.67×10^{-2} (1.08×10^{-2})	1.53×10^{-3}	9.11×10^{-4} (1.32×10^{-4})	**7.52×10^{-4} (1.43×10^{-5})**

				(5.03 x 10^{-5})		
	baseline	9.99 x 10^{-4} (6.61 x 10^{-5})	4.56 x 10^{-2} (3.09 x 10^{-2})	1.43 x 10^{-3} (9.46 x 10^{-5})	7.78 x 10^{-4} (1.41 x 10^{-4})	**6.94 x 10^{-4} (1.39 x 10^{-4})**
	25% increase	8.92 x 10^{-4} (1.12 x 10^{-4})	8.59 x 10^{-2} (5.99 x 10^{-2})	1.30 x 10^{-3} (1.62 x 10^{-4})	6.70 x 10^{-4} (1.52 x 10^{-4})	**6.22 x 10^{-4} (1.42 x 10^{-4})**
Medium (35%)	25% decrease	3.87 x 10^{-3} (9.71 x 10^{-5})	7.62 x 10^{-3} (7.34 x 10^{-3})	5.57 x 10^{-3} (1.82 x 10^{-4})	**2.58 x 10^{-3} (3.39 x 10^{-4})**	2.74 x 10^{-3} (2.74 x 10^{-4})
	baseline	3.66 x 10^{-3} (2.13 x 10^{-4})	2.40 x 10^{-2} (2.53 x 10^{-2})	5.28 x 10^{-3} (3.26 x 10^{-4}	**2.23 x 10^{-3} (3.81 x 10^{-4})**	2.59 x 10^{-3} (2.97 x 10^{-4})
	25% increase	3.38 x 10^{-4} (3.70 x 10^{-4})	4.81 x 10^{-2} (5.17 x 10^{-2})	4.96 x 10^{-3} (5.55 x 10^{-4})	**1.95 x 10^{-3} (4.24 x 10^{-4})**	2.39 x 10^{-3} (3.38 x 10^{-4})
High (65%)	25% decrease	7.47 x 10^{-3} (1.35 x 10^{-4})	9.63 x 10^{-3} (9.52 x 10^{-3})	1.10 x 10^{-2} (5.77 x 10^{-4})	**3.11 x 10^{-3} (5.32 x 10^{-4})**	5.29 x 10^{-3} (3.84 x 10^{-4})
	baseline	7.23 x 10^{-3} (2.92 x 10^{-4})	1.91 x 10^{-2} (2.54 x 10^{-2})	1.06 x 10^{-2} (5.77 x 10^{-4})	**2.70 x 10^{-3} (5.55 x 10^{-4})**	5.12 x 10^{-3} (4.25 x 10^{-4})
	25% increase	6.94 x 10^{-3} (5.32 x 10^{-4})	3.75 x 10^{-2} (4.78 x 10^{-2})	1.04 x 10^{-2} (9.09 x 10^{-4})	**2.38 x 10^{-3} (5.58 x 10^{-4})**	4.91 x 10^{-3} (5.14 x 10^{-4})

Severe (90%)	25% decrease	1.07×10^{-2} (1.18×10^{-4})	2.74×10^{-2} (8.27×10^{-2})	1.76×10^{-2} (3.03×10^{-3})	**1.81×10^{-3} (7.59×10^{-4})**	7.53×10^{-3} (4.76×10^{-4})
	baseline	1.05×10^{-2} (2.48×10^{-4})	6.43×10^{-2} (1.48×10^{-1})	1.70×10^{-2} (2.38×10^{-3})	**1.55×10^{-3} (7.29×10^{-4})**	7.44×10^{-3} (4.98×10^{-4})
	25% increase	1.04×10^{-2} (4.09×10^{-4})	1.24×10^{-1} (2.34×10^{-1})–	1.79×10^{-2} (3.37×10^{-3})	**1.33×10^{-3} (6.26×10^{-4})**	7.34×10^{-3} (5.5×10^{-4})
Real Life Example (97%	25% decrease	1.16×10^{-2} (9.08×10^{-5})	9.09×10^{-2} (2.44×10^{-1})	2.88×10^{-2} (1.86×10^{-2})	**1.18×10^{-3} (1.43×10^{-3})**	8.20×10^{-3} (4.85×10^{-4})
	baseline	1.15×10^{-2} (1.55×10^{-4})	1.77×10^{-1} (3.4×10^{-1})	3.02×10^{-2} (2.39×10^{-2})	**9.55×10^{-4} (1.22×10^{-3})**	8.15×10^{-3} (4.95×10^{-4})
	25% increase	1.15×10^{-2} (2.83×10^{-4})	2.19×10^{-1} (3.69×10^{-1})	3.24×10^{-2} (2.84×10^{-2})	**9.01×10^{-4} (1.25×10^{-3})**	8.10×10^{-3} (5.21×10^{-4})
Altered LOD						
Censoring Degree	Model Version	Substitution	MLE	KM	MI method 1	MI method 2
Low (10%)	25% decrease	7.69×10^{-4} (4.81×10^{-5})	4.14×10^{-2} (2.90×10^{-2})	1.11×10^{-3} (6.82×10^{-5})	6.00×10^{-4} (1.11×10^{-4})	**5.38×10^{-4} (1.10×10^{-4})**
	baseline	9.99×10^{-4} (6.61×10^{-5})	4.56×10^{-2} (3.09×10^{-2})	1.43×10^{-3} (9.46×10^{-5})	7.78×10^{-4} (1.41×10^{-4})	**6.94×10^{-4} (1.39×10^{-4})**

	25% increase	1.21×10^{-3} (8.83×10^{-5})	4.61×10^{-2} (3.11×10^{-2})	1.73×10^{-3} (1.25×10^{-4})	9.58×10^{-4} (1.75×10^{-4})	**8.49×10^{-4} (1.72×10^{-4})**
Medium (35%)	25% decrease	2.80×10^{-3} (1.44×10^{-4})	2.27×10^{-2} (2.39×10^{-2})	4.06×10^{-3} (2.22×10^{-4})	**1.69×10^{-3} (2.83×10^{-4})**	1.98×10^{-3} (2.21×10^{-4})
	baseline	3.66×10^{-3} (2.13×10^{-4})	2.40×10^{-2} (2.53×10^{-2})	5.28×10^{-3} (3.26×10^{-4}	**2.23×10^{-3} (3.81×10^{-4})**	2.59×10^{-3} (2.97×10^{-4})
	25% increase	4.48×10^{-3} (2.69×10^{-4})	2.30×10^{-2} (2.33×10^{-2})	6.45×10^{-3} (3.92×10^{-4})	**2.77×10^{-3} (4.63×10^{-4})**	3.17×10^{-3} (3.52×10^{-4})
High (65%)	25% decrease	5.48×10^{-3} (2.06×10^{-4})	1.75×10^{-2} (2.23×10^{-2})	8.10×10^{-3} (4.83×10^{-4})	**2.00×10^{-3} (4.11×10^{-4})**	3.88×10^{-3} (3.14×10^{-4})
	baseline	7.23×10^{-3} (2.92×10^{-4})	1.91×10^{-2} (2.54×10^{-2})	1.06×10^{-2} (5.77×10^{-4})	**2.70×10^{-3} (5.55×10^{-4})**	5.12×10^{-3} (4.25×10^{-4})
	25% increase	8.92×10^{-3} (3.91×10^{-4})	2.31×10^{-2} (2.96×10^{-2})	1.30×10^{-2} (7.35×10^{-4})	**3.36×10^{-3} (6.89×10^{-4})**	6.31×10^{-3} (5.32×10^{-4})
Severe (90%)	25% decrease	7.93×10^{-3} (1.70×10^{-4})	6.73×10^{-2} (1.65×10^{-1})	1.33×10^{-2} (2.38×10^{-3})	**1.11×10^{-3} (5.14×10^{-4})**	5.59×10^{-3} (3.74×10^{-4})
	baseline	1.05×10^{-2} (2.48×10^{-4})	6.43×10^{-2} (1.48×10^{-1})	1.70×10^{-2}	**1.55×10^{-3} (7.29×10^{-4})**	7.44×10^{-3} (4.98×10^{-4})

				(2.38 x 10^{-3})		
	25% increase	1.31 x 10^{-2} (3.21 x 10^{-4})	7.15 x 10^{-2} (1.59 x 10^{-1})	2.16 x 10^{-2} (3.85 x 10^{-3})	**1.93 x 10^{-3} (8.91 x 10^{-4})**	9.27 x 10^{-3} (6.27 x 10^{-4})
Real Life Example (97%	25% decrease	8.66 x 10^{-3} (1.21 x 10^{-4})	1.57 x 10^{-1} (3.24 x 10^{-1})	2.37 x 10^{-2} (2.37 x 10^{-2})	**7.19 x 10^{-4} (8.92 x 10^{-4})**	6.11 x 10^{-3} (3.75 x 10^{-4})
	baseline	1.15 x 10^{-2} (1.55 x 10^{-4})	1.77 x 10^{-1} (3.4 x 10^{-1})	3.02 x 10^{-2} (2.39 x 10^{-2})	**9.55 x 10^{-4} (1.22 x 10^{-3})**	8.15 x 10^{-3} (4.95 x 10^{-4})
	25% increase	1.44 x 10^{-2} (2.07 x 10^{-4})	1.68 x 10^{-1} (3.25 x 10^{-1})	3.67 x 10^{-2} (2.76 x 10^{-2})	**1.23 x 10^{-3} (1.63 x 10^{-3})**	1.02 x 10^{-2} (6.17 x 10^{-4})

*Bolded values indicate that these were the closest to the known values for that degree of censoring