SUPPLEMENTARY MATERIAL

Real time prediction using nonlinear models

A real time prediction is a procedure in which the final size of the epidemic is predicted in an early stage of the outbreak. Let t' be a time point within the outbreak interval and let T be the last time of the outbreak (i.e. for $t > T$ there are no cases , see Fig S1 b). The time interval is divided into two periods, the first period from $t = 1$ to $t' \leq T$ is the estimation period. The unknown parameters of the model are estimated using the data within the estimation period and a model based prediction is used to calculate the final size of the epidemic and the turning point. Note that, as shown in the Fig S1 a, the final size of the epidemic is a parameter in the model.

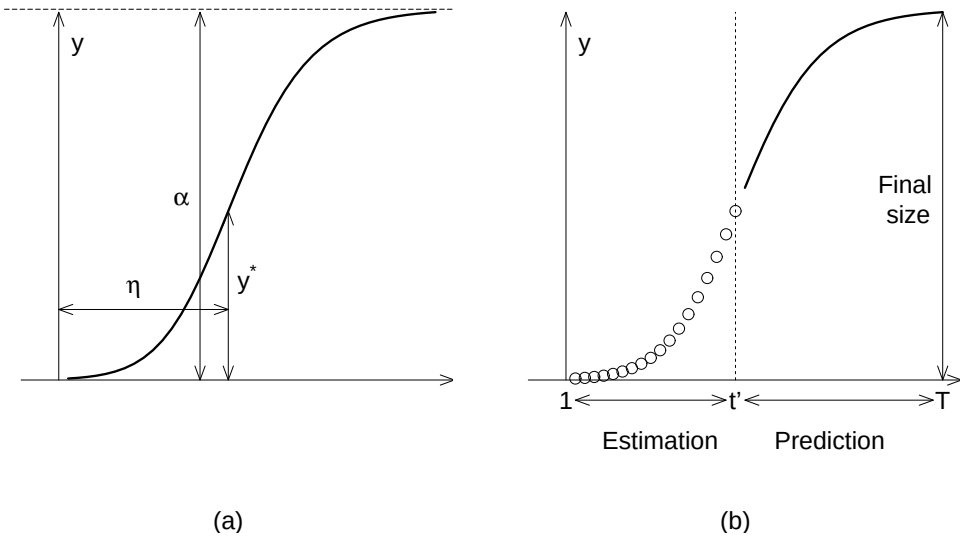

Fig. S1. Real time prediction using nonlinear models: (a) parameters from Richards model, asymptote α (final size of the outbreak) and η (turning point of an epidemic); (b) real time prediction.

The performance of the Weibull model

Fig 3 in the paper reveals an "unusual performance of the Weibull model in two cities: Bucaramanga and Cali". In this section we discuss in more details the performance of the Weibull model. Fig S2 shows the observed and predicted number of cases, obtained for the Weibull model when all data are used to estimate the model. Based on these results the models weights, presented in Table 3 are calculated. As we mentioned in the results section, for all the cities, the weight of the Weibull model, due to a poor fit to the data, is very small and does not highly influence the parameter estimates and their standard errors. Fig S3 presents the real-time prediction in the four cities and reveals that in all cities, the Weibull model has the tendency to over estimate the final size of the epidemic. For Cali and Bucaramanga, when the estimation period is 1-32, as shown in Fig S4, the predicted final size is closer to the observed 12380.4 and 3498.2 for Cali and Bucaramanga, respectively (see also in Table S1). These estimates are closer to the observed values as can be seen for the final size in Fig S3 and the turning point in Fig S5.

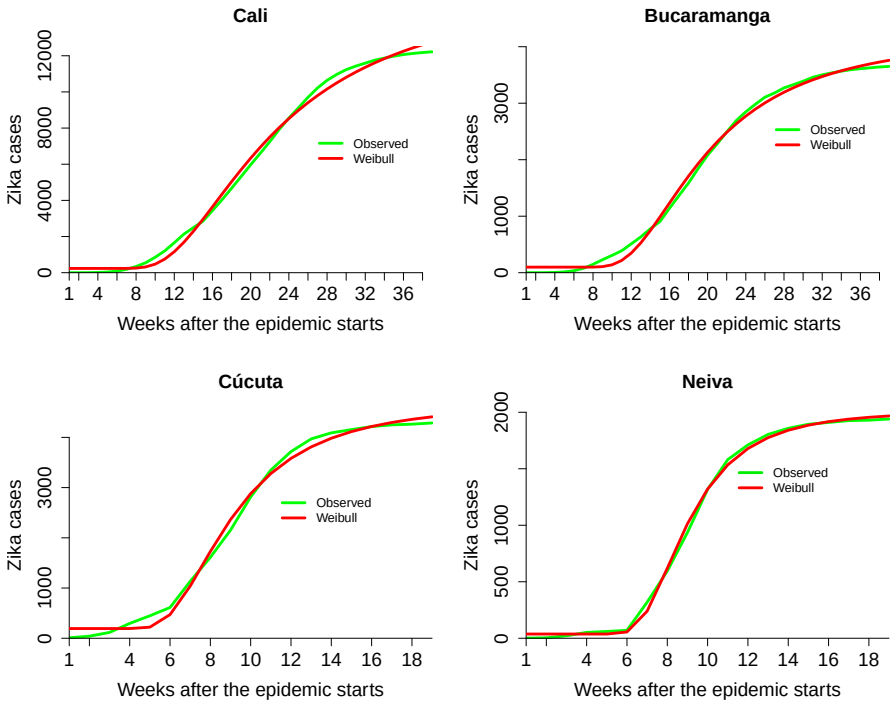

Fig. S2. Observed and fitted cumulative Zika case counts from the Weibull model in four cities from Colombia. Estimation period 1 to t, where t = T, and T is the maximum number of weeks of the outbreak.

Table S1. Parameter estimates for Weibull model in the four cities. EP: estimation period in weeks.

	Cali				Bucaramanga			
EP	α	β	k	η	α	β	k	η
1-22	12029.5	-61.9	-3.1	22.6	4180.2	-1.8	-3.3	22.6
1-23	12720.7	-66.5	-3.0	23.2	3890.3	0.8	-3.3	21.8
1-24	13049.2	-69.1	-3.0	23.5	3667.2	4.0	-3.4	21.2
1-25	13044.4	-69.0	-3.0	23.5	3540.4	6.8	-3.5	20.8
1-26	13159.3	-70.5	-3.0	23.6	3495.8	8.2	-3.5	20.7
1-27	13214.7	-71.3	-3.0	23.7	3449.0	10.1	-3.6	20.6
1-28	13112.0	-69.3	-3.0	23.5	3443.9	10.4	-3.6	20.6
1-29	43296.5	43.2	1.0	38.8	6103.1	54.7	1.8	21.2
1-30	34955.7	61.7	1.2	32.8	5552.7	61.4	1.9	20.1
1-31	29075.9	82.6	1.3	28.6	5218.3	66.7	2.0	19.4
1-32	12380.4	-41.6	-3.1	22.8	3498.2	5.3	-3.5	20.7
1-33	12311.2	-36.9	-3.1	22.7	4778.5	76.4	2.2	18.6
1-34	20456.4	145.6	1.6	22.5	4629.7	80.7	2.3	18.3
1-35	19037.4	165.4	1.8	21.5	4510.9	84.7	2.4	18.1
1-36	17968.0	184.4	1.9	20.8	4412.5	88.5	2.5	17.9
1-37	17129.1	202.7	2.0	20.2	4330.7	92.1	2.6	17.8
1-38	16463.6	220.3	2.1	19.8	4264.0	95.4	2.6	17.7
1-39	15927.9	237.1	2.2	19.5	4206.8	98.5	2.7	17.6
	Cúcuta				Neiva			
EP	α	β	k	η	α	β	k	η
1-12	16158.9	82.2	1.1	16.7	-	-	-	-
1-13	8526.0	110.7	1.7	10.9	2255.7	3.8	8.6	30.0
1-14	6358.3	135.8	2.1	9.3	2152.4	4.1	8.5	31.9
1-15	5506.6	155.0	2.5	8.7	2097.4	4.3	8.4	33.4
1-16	5121.4	168.4	2.8	8.4	2059.9	4.4	8.4	34.8
1-17	4903.8	178.5	3.0	8.3	2037.2	4.5	8.4	35.8
1-18	4762.5	186.9	3.2	8.2	2019.7	4.6	8.4	36.7
1-19	4673.9	193.1	3.3	8.2	2008.6	4.7	8.3	37.4

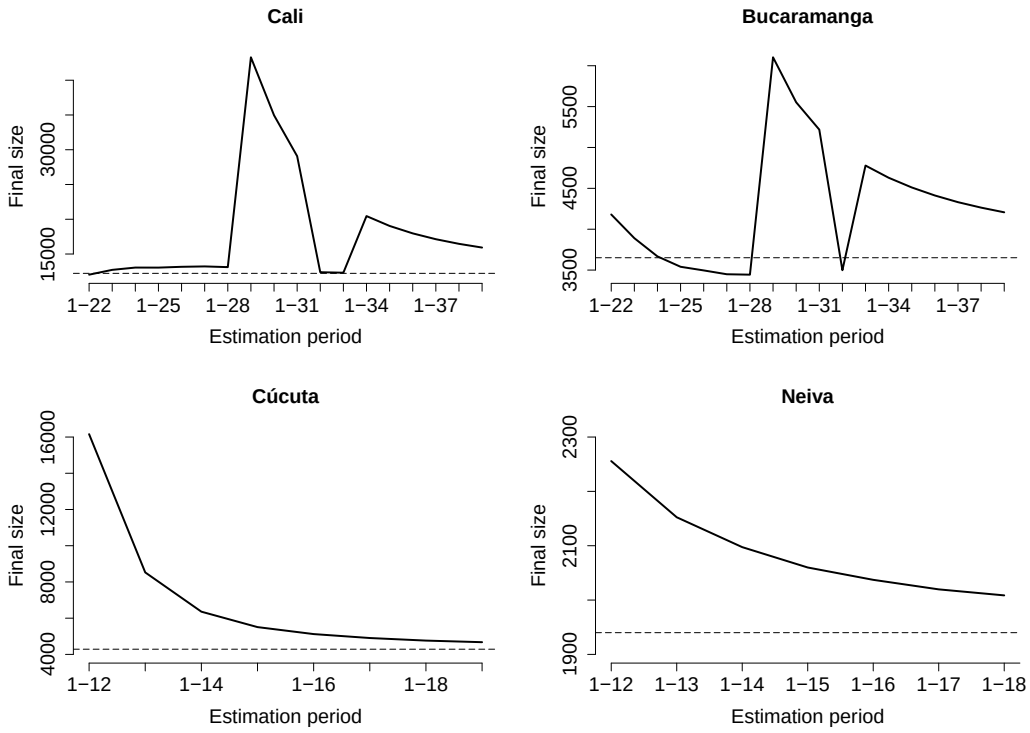

Fig. S3. Real-time prediction of the final size of the Zika outbreak obtained for the Weibull model in four cities from Colombia. Dashed lines are observed values.

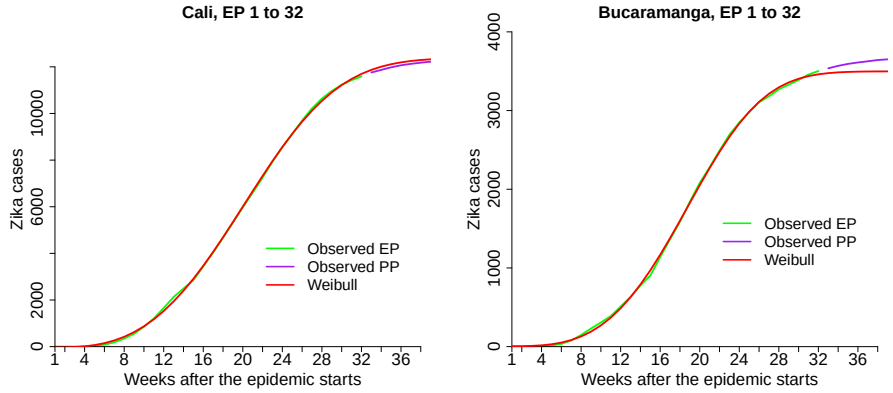

Fig. S4. Observed and fitted cumulative Zika case counts from the Weibull model in Bucaramanga and Cali. In both cities, the estimation period consist of the first 32 weeks of the outbreak. EP: estimation period; PP: prediction period.

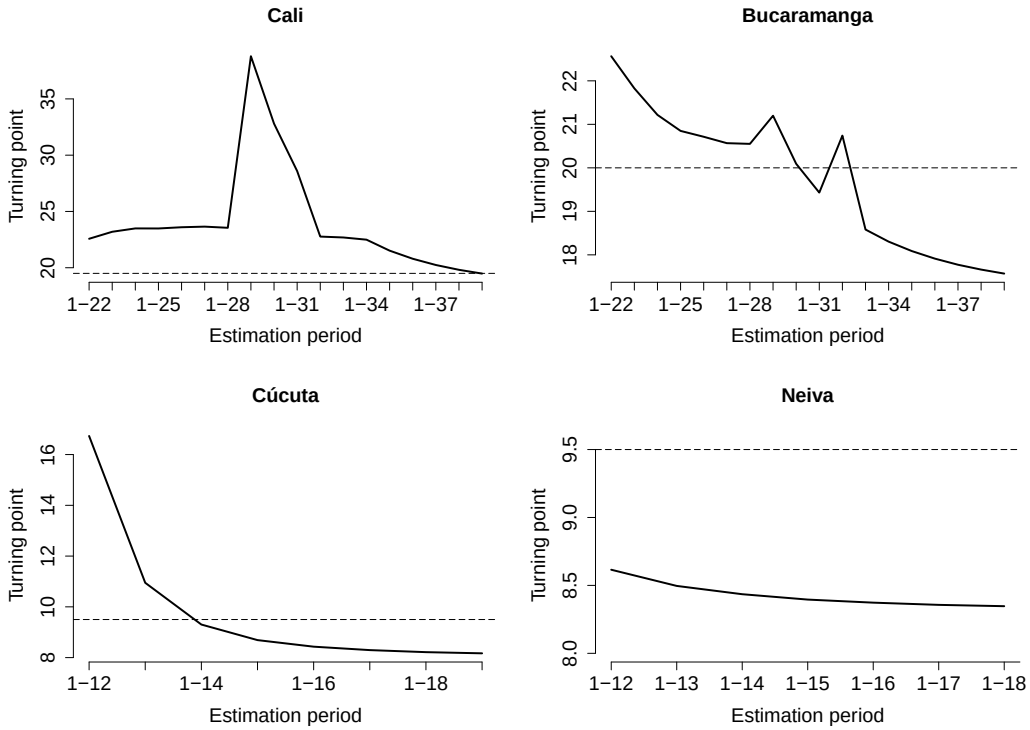

Fig. S5. Parameter estimates for the turning point for the Zika outbreak obtained for the Weibull model in four cities from Colombia. Dashed lines are observed values

Real time estimation of the turning point and predicted final size (mean and 95% confidence intervals) of the outbreak in four Colombian cities using all nonlinear models and model average for different estimations periods

Table S2. Real time estimation of the turning point and predicted final size of the outbreak using all nonlinear model and model average for different estimation periods in the city of Bucaramanga.

Estimated turning point of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-22	18.1 (17.5,18.8)	17.3(16.4,18.2)	21.8(19.6,24)	20.7 (17.5,24)	25.7 (21.9,29.5)	22.6 (20.4,24.7)	17.3 (12.6,21.9)
1-23	18.3 (17.8,18.9)	18 (17.1,19)	20.8 (19.2,22.4)	19.5 (18.1,20.9)	24.1 (21.6,26.6)	21.8 (20.5,23.2)	18 (15,21.1)
1-24	18.4 (18,18.9)	18.3 (17.6,18.9)	19.8 (18.6,21)	18.8 (18.1,19.5)	22.7 (21,24.4)	21.2 (20.4,22.1)	18.3 (16.2,20.4)
1-25	18.5 (18.2,18.8)	18.4 (17.9,18.9)	19 (18.1,20)	18.5 (18.1,18.9)	21.8 (20.5,23)	20.8 (20.3,21.4)	18.4 (16.8,20)
1-26	18.6 (18.3,18.9)	18.6 (18.2,18.9)	18.5 (17.8,19.3)	18.4 (18.1,18.7)	21.1 (20.2,22.1)	20.7 (20.3,21.1)	18.6 (17.4,19.8)
1-27	18.6 (18.4,18.8)	18.6 (18.3,18.8)	18.1 (17.4,18.7)	18.4 (18.1,18.6)	20.6 (19.8,21.4)	20.6 (20.2,20.9)	18.6 (17.6,19.6)
1-28	18.6 (18.4,18.8)	18.7 (18.5,18.9)	17.8 (17.2,18.3)	18.4 (18.1,18.6)	20.2 (19.6,20.9)	20.6 (20.3,20.8)	18.7 (17.9,19.5)
1-29	18.7 (18.5,18.8)	18.7 (18.6,18.9)	17.5 (17.1,18)	18.4 (18.1,18.6)	20 (19.4,20.5)	21.2 (18.5,23.9)	18.7 (18,19.4)
1-30	18.7 (18.5,18.9)	18.8 (18.6,18.9)	17.4 (17,17.7)	18.4 (18.1,18.6)	19.8 (19.3,20.2)	20.1 (18.1,22.1)	18.8 (18.2,19.3)
1-31	18.7 (18.6,18.9)	18.9 (18.7,19)	17.3 (16.9,17.6)	18.3 (18.1,18.6)	19.7 (19.3,20.1)	19.4 (17.9,21)	18.9 (18.4,19.4)
1-32	18.8 (18.6,18.9)	18.9 (18.8,19.1)	17.2 (16.9,17.5)	18.3 (18.1,18.6)	19.6 (19.3,20)	20.7 (20.6,20.9)	18.9 (18.5,19.4)
1-33	18.8 (18.7,19)	19 (18.8,19.1)	17.1 (16.9,17.4)	18.3 (18.1,18.6)	19.5 (19.2,19.8)	18.6 (17.6,19.6)	19 (18.6,19.4)
1-34	18.9 (18.7,19)	19 (18.9,19.1)	17.1 (16.8,17.4)	18.3 (18.1,18.6)	19.5 (19.2,19.8)	18.3 (17.5,19.1)	19 (18.7,19.4)
1-35	18.9 (18.8,19.1)	19 (18.9,19.1)	17.1 (16.8,17.3)	18.3 (18.1,18.6)	19.4 (19.2,19.7)	18.1 (17.4,18.8)	19 (18.7,19.4)
1-36	18.9 (18.8,19.1)	19.1 (19,19.2)	17 (16.8,17.3)	18.3 (18.1,18.5)	19.4 (19.2,19.6)	17.9 (17.3,18.5)	19.1 (18.8,19.4)
1-37	19 (18.8,19.1)	19.1 (19,19.2)	17 (16.8,17.2)	18.3 (18.1,18.5)	19.4 (19.1,19.6)	17.8 (17.2,18.3)	19.1 (18.8,19.3)
1-38	19 (18.9,19.1)	19.1 (19,19.2)	17 (16.8,17.2)	18.3 (18.1,18.5)	19.3 (19.1,19.5)	17.7 (17.1,18.2)	19.1 (18.8,19.3)
1-39	19 (18.9,19.1)	19.1 (19,19.2)	17 (16.8,17.2)	18.3 (18.1,18.5)	19.3 (19.1,19.5)	17.6 (17.1,18)	19.1 (18.8,19.3)

Predicted final size of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-22	3281 (3025,3537)	2846 (2418,3275)	6760 (5244,8276)	5835 (2951,8719)	6738 (4785,8691)	4180 (3345,5016)	2854 (451,5257)
1-23	3371 (3166,3575)	3193 (2735,3651)	6046 (5049,7042)	4784 (3503,6065)	5910 (4762,7058)	3890 (3414,4367)	3198 (1781,4615)
1-24	3415 (3256,3574)	3304 (2985,3624)	5416 (4717,6116)	4193 (3537,4850)	5259 (4523,5994)	3667 (3380,3954)	3305 (2398,4212)
1-25	3441 (3317,3566)	3368 (3146,3589)	4954 (4436,5473)	3906 (3515,4297)	4823 (4309,5336)	3540 (3354,3726)	3368 (2733,4002)
1-26	3470 (3370,3571)	3452 (3277,3627)	4659 (4262,5055)	3798 (3533,4063)	4568 (4188,4947)	3496 (3367,3625)	3452 (2982,3922)
1-27	3477 (3396,3558)	3457 (3334,3579)	4397 (4079,4715)	3687 (3503,3871)	4337 (4040,4633)	3449 (3357,3541)	3457 (3088,3825)
1-28	3492 (3424,3559)	3498 (3399,3597)	4234 (3978,4490)	3652 (3516,3789)	4202 (3966,4439)	3444 (3374,3514)	3498 (3204,3792)
1-29	3502 (3445,3558)	3519 (3441,3597)	4105 (3893,4316)	3625 (3520,3729)	4095 (3901,4289)	6103 (4807,7399)	3519 (3277,3761)
1-30	3514 (3464,3563)	3545 (3479,3611)	4015 (3839,4192)	3616 (3533,3700)	4022 (3860,4184)	5553 (4595,6510)	3545 (3343,3748)
1-31	3533 (3488,3578)	3587 (3524,3650)	3964 (3815,4112)	3630 (3560,3700)	3984 (3848,4121)	5218 (4473,5964)	3587 (3416,3758)
1-32	3550 (3508,3592)	3619 (3561,3678)	3923 (3796,4050)	3642 (3582,3701)	3954 (3837,4071)	3498 (3462,3535)	3619 (3472,3766)
1-33	3565 (3526,3604)	3643 (3590,3696)	3891 (3781,4001)	3651 (3599,3702)	3929 (3828,4031)	4779 (4286,5271)	3643 (3515,3770)
1-34	3579 (3542,3615)	3661 (3613,3709)	3865 (3769,3961)	3659 (3614,3704)	3909 (3820,3998)	4630 (4216,5043)	3661 (3549,3773)
1-35	3591 (3556,3625)	3675 (3632,3718)	3845 (3760,3930)	3666 (3626,3705)	3891 (3812,3971)	4511 (4158,4864)	3675 (3575,3775)
1-36	3601 (3568,3633)	3685 (3646,3724)	3827 (3751,3903)	3670 (3635,3705)	3876 (3805,3947)	4413 (4107,4718)	3685 (3595,3774)
1-37	3609 (3578,3640)	3691 (3656,3726)	3812 (3744,3880)	3674 (3642,3705)	3861 (3797,3926)	4331 (4063,4598)	3691 (3610,3772)
1-38	3617 (3588,3647)	3697 (3665,3729)	3800 (3738,3862)	3677 (3649,3706)	3850 (3791,3908)	4264 (4027,4501)	3697 (3623,3771)
1-39	3624 (3596,3652)	3701 (3672,3729)	3789 (3733,3846)	3680 (3654,3706)	3839 (3785,3892)	4207 (3995,4419)	3701 (3633,3768)

Table S3. Real time estimation of the turning point and predicted final size of the outbreak using all nonlinear model and model average for different estimation periods in the city of Cali

Estimated turning point of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-25	19.1 (18.3,19.8)	63.9 (-42.3,170.2)	20.7 (19.7,21.6)	23.3 (20,26.7)	25.6 (23.7,27.5)	23.5 (22.2,24.8)	28.7 (4.4,53.1)
1-26	19.4 (18.7,20.1)	35 (15.4,54.6)	20.6 (19.8,21.4)	22 (20.1,23.8)	25.4 (23.9,27)	23.6 (22.6,24.6)	24 (15.7,32.3)
1-27	19.7 (19.1,20.4)	27.8 (20.5,35)	20.5 (19.9,21.1)	21.1 (20,22.2)	25.2 (24,26.4)	23.7 (22.9,24.4)	23.3 (17.3,29.3)
1-28	20 (19.4,20.5)	24.2 (21,27.3)	20.3 (19.7,20.8)	20.4 (19.7,21.1)	24.7 (23.7,25.7)	23.5 (22.9,24.2)	23.4 (20.5,26.3)
1-29	20.1 (19.6,20.6)	22.2 (20.7,23.8)	19.9 (19.5,20.4)	19.9 (19.4,20.3)	24.1 (23.2,25)	38.8 (29.6,48)	22.5 (19.6,25.4)
1-30	20.2 (19.7,20.6)	21.3 (20.4,22.2)	19.6 (19.1,20)	19.5 (19.2,19.9)	23.5 (22.7,24.3)	32.8 (26,39.6)	21.3 (20.2,22.5)
1-31	20.2 (19.8,20.6)	20.8 (20.3,21.4)	19.2 (18.8,19.6)	19.4 (19,19.8)	22.9 (22.2,23.6)	28.6 (23.6,33.6)	20.8 (19.9,21.7)
1-32	20.3 (19.9,20.6)	20.6 (20.2,20.9)	19 (18.6,19.3)	19.3 (18.9,19.7)	22.4 (21.8,23.1)	22.8 (22.5,23)	22.6 (21.9,23.4)
1-33	20.3 (20,20.6)	20.5 (20.2,20.7)	18.7 (18.4,19.1)	19.3 (18.9,19.7)	22.1 (21.5,22.7)	22.7 (22.5,22.9)	22.5 (21.5,23.5)
1-34	20.3 (20,20.6)	20.4 (20.2,20.6)	18.6 (18.2,18.9)	19.3 (18.9,19.7)	21.8 (21.2,22.3)	22.5 (20.2,24.8)	20.4 (19.7,21.1)
1-35	20.3 (20,20.6)	20.4 (20.2,20.5)	18.4 (18.1,18.7)	19.4 (18.9,19.8)	21.5 (21,22)	21.5 (19.7,23.4)	20.4 (19.7,21)
1-36	20.3 (20.1,20.5)	20.3 (20.2,20.5)	18.3 (18,18.6)	19.4 (19,19.8)	21.4 (20.9,21.8)	20.8 (19.3,22.3)	20.3 (19.8,20.9)
1-37	20.3 (20.1,20.5)	20.3 (20.2,20.5)	18.2 (17.9,18.5)	19.4 (19,19.8)	21.2 (20.8,21.6)	20.2 (19,21.5)	20.3 (19.8,20.9)
1-38	20.3 (20.1,20.5)	20.3 (20.2,20.5)	18.1 (17.9,18.4)	19.4 (19,19.9)	21.1 (20.7,21.4)	19.8 (18.7,20.9)	20.3 (19.8,20.8)
1-39	20.3 (20.1,20.5)	20.3 (20.2,20.4)	18.1 (17.8,18.4)	19.5 (19.1,19.9)	20.9 (20.6,21.3)	19.5 (18.5,20.4)	20.3 (19.9,20.8)

Predicted final size of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-25	10836 (10007,11665)	56912 (-32807,146632)	17507 (15853,19162)	27292 (16648,37936)	19046 (16611,21481)	13044 (11767,14322)	30692 (7137,54246)
1-26	11283 (10519,12046)	29335 (8985,49686)	17414 (16104,18725)	23190 (17177,29202)	18837 (16944,20729)	13159 (12175,14144)	22966 (13130,32802)
1-27	11666 (10968,12363)	21406 (13355,29456)	17217 (16177,18257)	20549 (16817,24282)	18519 (17042,19996)	13215 (12459,13971)	19004 (12957,25051)
1-28	11943 (11325,12561)	17272 (13576,20968)	16808 (15964,17651)	18302 (15886,20718)	17933 (16763,19102)	13112 (12549,13675)	15548 (9578,21518)
1-29	12110 (11579,12642)	14940 (13033,16848)	16238 (15503,16973)	16472 (14817,18127)	17162 (16175,18150)	43296 (31106,55487)	15792 (12994,18591)
1-30	12210 (11757,12663)	13796 (12662,14929)	15669 (15000,16338)	15218 (14026,16410)	16428 (15558,17298)	34956 (25986,43925)	13865 (12617,15113)
1-31	12256 (11871,12640)	13136 (12402,13870)	15126 (14502,15751)	14325 (13432,15217)	15752 (14964,16541)	29076 (22363,35789)	13137 (12147,14128)
1-32	12278 (11950,12606)	12795 (12281,13308)	14670 (14094,15246)	13739 (13051,14426)	15201 (14490,15912)	12380 (12172,12589)	12406 (12070,12742)
1-33	12299 (12015,12583)	12650 (12265,13036)	14319 (13798,14840)	13383 (12841,13925)	14788 (14156,15420)	12311 (12141,12481)	12340 (12038,12642)
1-34	12311 (12063,12559)	12560 (12260,12860)	14028 (13557,14499)	13133 (12694,13571)	14450 (13884,15015)	20456 (17258,23655)	12560 (11848,13272)
1-35	12323 (12103,12542)	12518 (12275,12760)	13798 (13373,14223)	12966 (12605,13328)	14184 (13678,14690)	19037 (16425,21650)	12518 (11880,13156)
1-36	12333 (12138,12529)	12496 (12296,12697)	13612 (13228,13996)	12851 (12548,13154)	13970 (13515,14425)	17968 (15794,20142)	12496 (11922,13071)
1-37	12341 (12165,12517)	12480 (12311,12649)	13456 (13107,13805)	12763 (12504,13022)	13790 (13378,14202)	17129 (15290,18968)	12480 (11959,13000)
1-38	12346 (12187,12506)	12468 (12323,12612)	13326 (13007,13644)	12697 (12473,12921)	13639 (13263,14014)	16464 (14886,18042)	12468 (11993,12942)
1-39	12351 (12205,12497)	12458 (12333,12584)	13216 (12924,13509)	12646 (12449,12842)	13510 (13167,13854)	15928 (14557,17299)	12458 (12023,12894)

Table S4. Real time estimation of the turning point and predicted final size of the outbreak using all nonlinear model and model average for different estimation periods in the city of Cúcuta

Estimated turning point of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-12	9 (8.7,9.3)	8.8 (8.2,9.4)	9.1 (8.1,10.2)	9 (8.7,9.4)	10.3 (9,11.7)	16.7 (1.5,31.9)	9 (8.4,9.6)
1-13	9 (8.8,9.2)	8.9 (8.6,9.2)	8.6 (8,9.2)	9 (8.7,9.2)	9.7 (9,10.5)	10.9 (7.3,14.6)	9 (8.6,9.3)
1-14	8.9 (8.8,9.1)	8.9 (8.7,9.1)	8.3 (7.9,8.7)	9 (8.7,9.2)	9.4 (8.9,9.9)	9.3 (7.8,10.8)	8.9 (8.6,9.2)
1-15	8.9 (8.8,9)	8.9 (8.8,9)	8.2 (7.9,8.5)	9 (8.7,9.2)	9.2 (8.9,9.6)	8.7 (7.9,9.5)	8.9 (8.6,9.2)
1-16	8.9 (8.8,9)	8.9 (8.8,9)	8.1 (7.8,8.4)	9 (8.8,9.2)	9.1 (8.8,9.4)	8.4 (7.9,9)	8.9 (8.7,9.2)
1-17	8.9 (8.8,9)	8.9 (8.8,9)	8.1 (7.8,8.3)	9 (8.8,9.2)	9.1 (8.8,9.3)	8.3 (7.9,8.7)	8.9 (8.7,9.2)
1-18	8.9 (8.8,9)	8.9 (8.9,9)	8 (7.8,8.3)	9 (8.8,9.2)	9 (8.8,9.2)	8.2 (7.8,8.6)	8.9 (8.7,9.2)
1-19	8.9 (8.8,9)	8.9 (8.9,9)	8 (7.8,8.3)	9 (8.8,9.2)	9 (8.8,9.2)	8.2 (7.8,8.5)	8.9 (8.7,9.1)

Predicted final size of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-12	4419 (4137,4702)	4103 (3333,4872)	6084 (4607,7560)	4546 (3772,5320)	5842 (4413,7270)	16159 (-3433,35751)	4427 (3660,5194)
1-13	4387 (4219,4556)	4227 (3830,4624)	5303 (4540,6065)	4405 (4053,4757)	5210 (4496,5923)	8526 (3933,13119)	4367 (4000,4733)
1-14	4342 (4229,4456)	4231 (4022,4441)	4877 (4405,5348)	4316 (4126,4506)	4855 (4417,5293)	6358 (4435,8281)	4308 (4039,4578)
1-15	4310 (4226,4394)	4231 (4102,4361)	4649 (4324,4974)	4276 (4156,4396)	4659 (4355,4964)	5507 (4426,6587)	4272 (4041,4502)
1-16	4299 (4234,4365)	4249 (4156,4343)	4537 (4298,4775)	4273 (4187,4358)	4561 (4335,4787)	5121 (4407,5835)	4273 (4101,4445)
1-17	4295 (4243,4348)	4264 (4191,4336)	4471 (4286,4657)	4275 (4210,4340)	4502 (4325,4678)	4904 (4387,5420)	4278 (4147,4409)
1-18	4293 (4248,4337)	4271 (4213,4329)	4428 (4278,4578)	4277 (4224,4329)	4459 (4315,4604)	4762 (4366,5159)	4280 (4173,4387)
1-19	4294 (4256,4332)	4280 (4231,4329)	4403 (4277,4528)	4282 (4238,4326)	4434 (4313,4554)	4674 (4356,4992)	4286 (4199,4372)

Table S5. Real time estimation of the turning point and predicted final size of the outbreak using all nonlinear model and model average for different estimation periods in the city of Neiva

Estimated turning point of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-13	8.9 (8.8,9.1)	9 (8.8,9.2)	8.4 (8.2,8.6)	8.8 (8.5,9.1)	9 (8.9,9.2)	8.6 (8.3,9)	8.9 (8.5,9.3)
1-14	9 (8.8,9.1)	9 (8.9,9.2)	8.4 (8.2,8.5)	8.8 (8.5,9.1)	9 (8.9,9.2)	8.5 (8.2,8.7)	8.9 (8.6,9.3)
1-15	9 (8.9,9.1)	9 (8.9,9.2)	8.3 (8.2,8.5)	8.8 (8.5,9.1)	9 (8.9,9.2)	8.4 (8.2,8.6)	8.9 (8.6,9.3)
1-16	9 (8.9,9.1)	9 (8.9,9.1)	8.3 (8.2,8.5)	8.8 (8.5,9)	9 (8.9,9.1)	8.4 (8.2,8.6)	9 (8.6,9.3)
1-17	9 (8.9,9.1)	9 (8.9,9.1)	8.3 (8.2,8.4)	8.7 (8.5,9)	9 (8.9,9.1)	8.4 (8.2,8.5)	9 (8.6,9.3)
1-18	9 (8.9,9.1)	9 (9,9.1)	8.3 (8.2,8.4)	8.7 (8.5,9)	9 (9,9.1)	8.4 (8.2,8.5)	9 (8.7,9.3)
1-19	9.1 (9,9.2)	9 (9,9.1)	8.3 (8.2,8.4)	8.7 (8.5,9)	9 (9,9.1)	8.3 (8.2,8.5)	9 (8.7,9.3)

Predicted final size of the outbreak

Period	3P logistic model	Richards model	5p logistic model	Sigmoid Emax	Gompertz model	Weibull model	Model averaging
1-13	1847 (1786,1909)	1919 (1757,2082)	1999 (1878,2121)	1881 (1773,1989)	1947 (1851,2043)	2256 (1971,2541)	1899 (1743,2055)
1-14	1866 (1819,1912)	1926 (1825,2027)	1971 (1891,2051)	1895 (1825,1965)	1943 (1878,2008)	2152 (1967,2338)	1912 (1804,2020)
1-15	1881 (1843,1920)	1935 (1864,2005)	1960 (1902,2018)	1908 (1857,1959)	1944 (1897,1992)	2097 (1965,2230)	1927 (1850,2005)
1-16	1892 (1859,1925)	1937 (1885,1989)	1952 (1908,1997)	1915 (1875,1954)	1944 (1907,1981)	2060 (1959,2161)	1933 (1876,1990)
1-17	1901 (1872,1930)	1941 (1900,1981)	1950 (1914,1985)	1921 (1889,1953)	1945 (1915,1975)	2037 (1957,2117)	1939 (1895,1983)
1-18	1907 (1881,1933)	1942 (1909,1974)	1947 (1917,1977)	1925 (1898,1952)	1945 (1920,1970)	2020 (1954,2086)	1940 (1905,1976)
1-19	1913 (1889,1937)	1944 (1917,1971)	1947 (1921,1972)	1929 (1906,1952)	1946 (1924,1968)	2009 (1953,2064)	1943 (1914,1973)