

Table S1. The average daily new cases and attack rates of COVID-19 and the comparison results between Hubei Province (except for Wuhan) and Wuhan.

	Hubei Province		Hubei Province (except for Wuhan)		Wuhan		<i>P</i> value	
Daily new cases								
	Period	Mean	Range	Mean	Range	Mean	Range	
	Before Jan.10	29.7	0 to 136	2.0	0 to 13	27.7	0 to 128	<0.0001
	Jan. 10 - 22	838.2	210 to 2248	228.8	39 to 700	609.4	169 to 1548	0.0015
	Jan. 23 - Feb. 6	2705.9	1718 to 4433	805.3	445 to 1036	1900.5	1273 to 3397	0.0007
	Feb. 7 - Mar. 7	508.0	1 to 1695	89.1	0 to 439	418.9	1 to 1256	<0.0001
	Total	744.0	0 to 4433	195.5	0 to 1036	548.5	0 to 3397	<0.0001
Daily attack rates (/106)								
	Period	Mean	95% CI	Mean	95% CI	Mean	95% CI	
	Before Jan.10	0.5	0.3 to 0.7	0.04	0.0 to 0.1	2.5	2.2 to 2.8	<0.0001
	Jan. 10 - 22	14.2	13.2 to 15.1	4.8	4.1 to 5.4	55.0	53.6 to 56.4	0.0015
	Jan. 23 - Feb. 6	45.7	44.0 to 47.5	16.7	15.6 to 17.9	171.5	169.1 to 174.0	0.0007
	Feb. 7 - Mar. 7	8.6	7.8 to 9.3	1.9	1.5 to 2.2	37.8	36.7 to 39.0	<0.0001
	Total	12.6	11.7 to 13.5	4.1	3.5 to 4.6	49.5	48.2 to 50.8	<0.0001

Table S2. The global spatial autocorrelation of the cumulative attack rates of COVID-19 in 17 different districts of Hubei Province.

	Moran's <i>I</i>	<i>Z</i>	<i>P</i> value
Whole study period	0.0184	1.4399	0.064
Before Jan.10	-0.0751	-0.4511	0.32
Jan. 10 - 22	0.004	1.0292	0.131
Jan. 23 - Feb. 6	0.0447	1.7492	0.045
Feb. 7 - Mar. 7	-0.0213	0.8587	0.156

Table S3. The doubling times of Hubei Province, Hubei Province (except for Wuhan) and Wuhan

Periods	Calendar	t (days)	Hubei Province				
			total cases, N	N/ N0	doubling time (days)	N0/N(last)	Harmonic mean (95% confidence interval)
Before Jan. 10	2019/1 2/26	0	106	1		0.11	4.28 (4.01 to 4.55)
	2019/1 2/27	1	132	1.2 5	3.16		
	2019/1 2/28	2	145	1.3 7	4.42		
	2019/1 2/29	3	161	1.5 2	4.98		
	2019/1 2/30	4	184	1.7 4	5.03		
	2019/1 2/31	5	202	1.9 1	5.37		
	2020/1 /1	6	285	2.6 9	4.20		
	2020/1 /2	7	355	3.3 5	4.01		
	2020/1 /3	8	421	3.9 7	4.02		
	2020/1 /4	9	473	4.4 6	4.17		
	2020/1 /5	10	561	5.2 9	4.16		
	2020/1 /6	11	633	5.9 7	4.27		
	2020/1 /7	12	713	6.7 3	4.36		
	2020/1 /8	13	849	8.0 1	4.33		
2020/1 /9	14	980	9.2 5	4.36			
Jan. 10 - 22	2020/1 /10	0	1205	1		0.10	3.87 (3.78 to 3.98)
	2020/1 /11	1	1415	1.1 7	4.31		
	2020/1 /12	2	1681	1.4 0	4.16		
	2020/1 /13	3	2027	1.6 8	4.00		
	2020/1 /14	4	2406	2.0 0	4.01		
	2020/1 /15	5	2940	2.4 4	3.89		
	2020/1 /16	6	3555	2.9 5	3.84		
	2020/1 /17	7	4337	3.6 0	3.79		
	2020/1 /18	8	5222	4.3 3	3.78		
	2020/1 /19	9	6195	5.1 4	3.81		
	2020/1 /20	10	7893	6.5 5	3.69		
	2020/1 /21	11	9629	7.9 9	3.67		

	2020/1/22	12	11877	9.8 6	3.64		
Jan. 23 - Feb. 6	2020/1/23	0	14656	1		0.28	5.40 (4.83 to 6.05)
	2020/1/24	1	17678	1.2 1	3.70		
	2020/1/25	2	20679	1.4 1	4.03		
	2020/1/26	3	23701	1.6 2	4.33		
	2020/1/27	4	26613	1.8 2	4.65		
	2020/1/28	5	29600	2.0 2	4.93		
	2020/1/29	6	32084	2.1 9	5.31		
	2020/1/30	7	34811	2.3 8	5.61		
	2020/1/31	8	37277	2.5 4	5.94		
	2020/2/1	9	41710	2.8 5	5.96		
	2020/2/2	10	44215	3.0 2	6.28		
	2020/2/3	11	46516	3.1 7	6.60		
	2020/2/4	12	48610	3.3 2	6.94		
	2020/2/5	13	50747	3.4 6	7.26		
2020/2/6	14	52465	3.5 8	7.61			
Feb. 7 - Mar. 7	2020/2/7	0	54160	1		0.80	45.56 (39.70 to 52.80)
	2020/2/8	1	55692	1.0 3	24.85		
	2020/2/9	2	56863	1.0 5	28.46		
	2020/2/10	3	58398	1.0 8	27.60		
	2020/2/11	4	59479	1.1 0	29.60		
	2020/2/12	5	60738	1.1 2	30.23		
	2020/2/13	6	61845	1.1 4	31.34		
	2020/2/14	7	62759	1.1 6	32.93		
	2020/2/15	8	63438	1.1 7	35.07		
	2020/2/16	9	64056	1.1 8	37.17		
	2020/2/17	10	64797	1.2 0	38.65		
	2020/2/18	11	65445	1.2 1	40.28		
	2020/2/19	12	65797	1.2 1	42.74		
	2020/2/20	13	66108	1.2	45.20		

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	2020/2/21	14	66391	1.2 3	47.66		
	2020/2/22	15	66638	1.2 3	50.15		
	2020/2/23	16	66812	1.2 3	52.83		
	2020/2/24	17	67005	1.2 4	55.37		
	2020/2/25	18	67198	1.2 4	57.84		
	2020/2/26	19	67321	1.2 4	60.54		
	2020/2/27	20	67415	1.2 4	63.32		
	2020/2/28	21	67488	1.2 5	66.16		
	2020/2/29	22	67534	1.2 5	69.10		
	2020/3/1	23	67589	1.2 5	71.97		
	2020/3/2	24	67628	1.2 5	74.91		
	2020/3/3	25	67666	1.2 5	77.83		
	2020/3/4	26	67685	1.2 5	80.84		
	2020/3/5	27	67702	1.2 5	83.86		
	2020/3/6	28	67705	1.2 5	86.95		
	2020/3/7	29	67706	1.2 5	90.05		
Periods	Calendar	t (days)	Hubei Province (except for Wuhan)				Harmonic mean (95% CI)
			total cases, N	N/NO	doubling time (days)	NO/N(last)	
Before Jan. 10	2019/12/26	0					
	2019/12/27	1					
	2019/12/28	2					
	2019/12/29	3					
	2019/12/30	4					
	2019/12/31	5					
	2020/1/1	6					
	2020/1/2	7					
	2020/1/3	8					
	2020/1/4	9					
	2020/1/5	10					

	2020/1/6	11					
	2020/1/7	12					
	2020/1/8	13					
	2020/1/9	14					
Jan. 10 - 22	2020/1/10	0	105	1.00		0.03	2.34 (2.27 to 2.40)
	2020/1/11	1	146	1.39	2.10		
	2020/1/12	2	198	1.89	2.19		
	2020/1/13	3	259	2.47	2.30		
	2020/1/14	4	339	3.23	2.37		
	2020/1/15	5	468	4.46	2.32		
	2020/1/16	6	618	5.89	2.35		
	2020/1/17	7	830	7.90	2.35		
	2020/1/18	8	1065	10.14	2.39		
	2020/1/19	9	1369	13.04	2.43		
	2020/1/20	10	1820	17.33	2.43		
	2020/1/21	11	2341	22.30	2.46		
	2020/1/22	12	3041	28.96	2.47		
Jan. 23 - Feb. 6	2020/1/23	0	3896	1		0.26	4.77 (4.18 to 5.52)
	2020/1/24	1	4884	1.25	3.07		
	2020/1/25	2	5848	1.50	3.41		
	2020/1/26	3	6784	1.74	3.75		
	2020/1/27	4	7745	1.99	4.04		
	2020/1/28	5	8695	2.23	4.32		
	2020/1/29	6	9519	2.44	4.66		
	2020/1/30	7	10359	2.66	4.96		
	2020/1/31	8	11166	2.87	5.27		
	2020/2/1	9	12202	3.13	5.46		
	2020/2/2	10	12941	3.32	5.77		
	2020/2/3	11	13590	3.49	6.10		
	2020/2/12	12	14172	3.6	6.44		

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	2020/2/5	13	14676	3.77	6.79		
	2020/2/6	14	15121	3.88	7.16		
Feb. 7 - Mar. 7	2020/2/7	0	15560	1		0.87	65.29 (54.80 to 79.9)
	2020/2/8	1	15931	1.02	29.42		
	2020/2/9	2	16246	1.04	32.13		
	2020/2/10	3	16537	1.06	34.15		
	2020/2/11	4	16755	1.08	37.47		
	2020/2/12	5	16988	1.09	39.47		
	2020/2/13	6	17140	1.10	43.00		
	2020/2/14	7	17304	1.11	45.67		
	2020/2/15	8	17399	1.12	49.64		
	2020/2/16	9	17489	1.12	53.38		
	2020/2/17	10	17556	1.13	57.43		
	2020/2/18	11	17623	1.13	61.24		
	2020/2/19	12	17672	1.14	65.35		
	2020/2/20	13	17715	1.14	69.47		
	2020/2/21	14	17736	1.14	74.14		
	2020/2/22	15	17750	1.14	78.96		
	2020/2/23	16	17763	1.14	83.76		
	2020/2/24	17	17778	1.14	88.43		
	2020/2/25	18	17782	1.14	93.47		
	2020/2/26	19	17786	1.14	98.50		
	2020/2/27	20	17788	1.14	103.59		
	2020/2/28	21	17790	1.14	108.68		
	2020/2/29	22	17790	1.14	113.86		
	2020/3/1	23	17792	1.14	118.93		
2020/3/2	24	17794	1.14	124.00			
2020/3/3	25	17794	1.14	129.17			
2020/3/4	26	17794	1.14	134.33			

	2020/3/5	27	17794	1.14	139.50		
	2020/3/6	28	17794	1.14	144.67		
	2020/3/7	29	17794	1.14	149.83		
Periods	Calendar	t (days)	Wuhan				Harmonic mean (95% CI)
			total cases, N	N/N0	doubling time (days)	N0/N(last)	
Before Jan. 10	2019/12/26	0	103	1		0.11	4.29 (3.96 to 4.56)
	2019/12/27	1	129	1.25	3.08		
	2019/12/28	2	142	1.38	4.32		
	2019/12/29	3	158	1.53	4.86		
	2019/12/30	4	181	1.76	4.92		
	2019/12/31	5	198	1.92	5.30		
	2020/1/1	6	274	2.66	4.25		
	2020/1/2	7	338	3.28	4.08		
	2020/1/3	8	403	3.91	4.06		
	2020/1/4	9	452	4.39	4.22		
	2020/1/5	10	532	5.17	4.22		
	2020/1/6	11	596	5.79	4.34		
	2020/1/7	12	668	6.49	4.45		
	2020/1/8	13	796	7.73	4.41		
2020/1/9	14	914	8.87	4.45			
Jan. 10 - 22	2020/1/10	0	1100	1		0.12	4.27 (4.16 to 4.42)
	2020/1/11	1	1269	1.15	4.85		
	2020/1/12	2	1483	1.35	4.64		
	2020/1/13	3	1768	1.61	4.38		
	2020/1/14	4	2067	1.88	4.40		
	2020/1/15	5	2472	2.25	4.28		
	2020/1/16	6	2937	2.67	4.23		
	2020/1/17	7	3507	3.19	4.18		
	2020/1/18	8	4157	3.78	4.17		
	2020/1/19	9	4826	4.39	4.22		

	2020/1/20	10	6073	5.5 2	4.06		
	2020/1/21	11	7288	6.6 3	4.03		
	2020/1/22	12	8836	8.0 3	3.99		
Jan. 23 - Feb. 6	2020/1/23	0	10760	1		0.29	5.68 (5.12 to 6.34)
	2020/1/24	1	12794	1.1 9	4.00		
	2020/1/25	2	14831	1.3 8	4.32		
	2020/1/26	3	16917	1.5 7	4.60		
	2020/1/27	4	18868	1.7 5	4.94		
	2020/1/28	5	20905	1.9 4	5.22		
	2020/1/29	6	22565	2.1 0	5.62		
	2020/1/30	7	24452	2.2 7	5.91		
	2020/1/31	8	26111	2.4 3	6.25		
	2020/2/1	9	29508	2.7 4	6.18		
	2020/2/2	10	31274	2.9 1	6.50		
	2020/2/3	11	32926	3.0 6	6.82		
	2020/2/4	12	34438	3.2 0	7.15		
	2020/2/5	13	36071	3.3 5	7.45		
2020/2/6	14	37344	3.4 7	7.80			
Feb. 7 - Mar. 7	2020/2/7	0	38600	1		0.77	40.80 (35.90 to 47.10)
	2020/2/8	1	39761	1.0 3	23.39		
	2020/2/9	2	40617	1.0 5	27.22		
	2020/2/10	3	41861	1.0 8	25.64		
	2020/2/11	4	42724	1.1 1	27.31		
	2020/2/12	5	43750	1.1 3	27.67		
	2020/2/13	6	44705	1.1 6	28.32		
	2020/2/14	7	45455	1.1 8	29.68		
	2020/2/15	8	46039	1.1 9	31.46		
	2020/2/16	9	46567	1.2 1	33.25		
	2020/2/17	10	47241	1.2 2	34.31		
	2020/2/18	11	47822	1.2	35.59		

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2020/2/19	12	48125	1.25	37.71
2020/2/20	13	48393	1.25	39.85
2020/2/21	14	48655	1.26	41.92
2020/2/22	15	48888	1.27	44.00
2020/2/23	16	49049	1.27	46.29
2020/2/24	17	49227	1.28	48.45
2020/2/25	18	49416	1.28	50.51
2020/2/26	19	49535	1.28	52.80
2020/2/27	20	49627	1.29	55.17
2020/2/28	21	49698	1.29	57.60
2020/2/29	22	49744	1.29	60.12
2020/3/1	23	49797	1.29	62.59
2020/3/2	24	49834	1.29	65.12
2020/3/3	25	49872	1.29	67.64
2020/3/4	26	49891	1.29	70.24
2020/3/5	27	49908	1.29	72.84
2020/3/6	28	49911	1.29	75.52
2020/3/7	29	49912	1.29	78.21