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Table-S0	Supplementary S1 information
Table-S1-Fig.1	Fig1.A-E: raw data and references
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Table-S1-Fig.1

Fig.1.C-D

	SRAS-CoV(Update 20030807)	MERS-CoV(Update 20190901)	COVID-19(Update 20200416)		References		
Infection cases	8422	2494	1991562		1,2,3,4		
Epidemic time (Month)	12	74	4		1,2,3,4		
Countries or areas reported cases globally	30	27	213		1,2,3,4		
Spread speed in areas or countries	2.5(30/12)	0.36(27/74)	53.25(213/4)		1,2,3,4		
Death	916	858	130885		1,2,3,4		
Death speed per month	76.33(8422/12)	11.59(858/74)	32721.25(1991562/4)		1,2,3,4		
Fatality ratio	10.88%(916/8422)	34.40%(858/2494)	6.57%(130885/1991562)		1,2,3,4		

COVID-19 infected cases (Update 20200416)	COVID-19 Death	COVID-19 Confirmed cases	Fatality ratio in infected cases(%)	Population (Ten thousand)	COVID-19 Infection ratio (Per 10000)		References
China	4642	84149	5.52	140000	0.60	update to 202004117	3
United States of America	28221	632781	4.46	33000	19.18	update to 202004117	3
Japan	148	9169	1.61	12477.6	0.73	update to 202004117	3
Germany	3867	133830	2.89	8292.7	16.14	update to 202004117	3
Iran	4869	77995	6.24	8165	9.55	update to 202004117	3
France	17899	107778	16.61	6698.7	16.09	update to 202004117	3
The United Kingdom	13729	103097	13.32	6648.9	15.51	update to 202004117	3
Italy	22172	168941	13.12	6043	27.96	update to 202004117	3
South Korea	230	10635	2.16	5163.5	2.06		3

Spain	19130	182816	10.46	4673	39.12	update to 202004117	3
Singapore	10	4427	0.23	564	7.85	update to 202004117	3
Iceland	8	1739	0.46	35.3	49.26	update to 202004117	3
Diamond Princess cruise ship	10	721	1.39				

Fig.1.A

Name	References
HCoV-229E, HCoV-HKU1, HCoV-NL63, HCoV-OC43	5,6
MERS-CoV, SARS-CoV, COVID-19	5,6,7

Fig.1.E

Name	Infection species	References
SRAS-CoV	Human, civet, cat, ferret	8,9
MERS-CoV	Human bat, dromedary	10,11
COVID-19	Human, cat, ferret, bat	12,13

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Table-S1-Fig.2

Fig.2.A					
SARS-CoV	Asymptc	Mild	Severe		References
Beijing	0	169	81		2
Hongkong	0	106	32		3
Singapore		153	46		4
Toronto		116	38		
Total	0	544	197	741	
		73.41%(544/741)	26.59%(197/741)		

MERS-CoV	Asymptc	Mild	Severe		
	82	148	67		5
	8	7	0		
Total	245		67	312	
		78.53%(245/312)	21.47%(67/312)		
COVID19	Asymptc	Mild	Severe		1
	0	36160	8255		
Total	36160		8255	44415	
		81.41%(36160/44415)	18.59%(8255/44415)		

Fig.2.B-C

References: Table-S1-Fig.1 data

Fig.2.D

SARS-CoV	Age	SARS-CoV infection cases	SARS-CoV death cases	Infection ratio(%)	Death ratio(%)	References
	<19	300	3	7.92	1.00	Fig.2.A SARS-CoV detail data
	20-29	1134	12	29.93	1.06	
	30-39	877	24	23.15	2.74	
	40-49	676	42	17.84	6.21	
	50-59	351	45	9.26	12.82	
	60-69	242	48	6.39	19.83	
	>70	209	66	5.52	31.58	
	Total	3789	240			

MERS-nCoV	Age	MERS-nCoV- infection cases in South Korea	MERS-nCoV- death cases in South Korea	Infection ratio(%)	Death ratio(%)	References
	<19	4	0	1.72	0.00	Fig.2.A MERS- CoV detail data
	20-29	19	0	8.15	0.00	
	30-39	38	2	16.31	5.26	
	40-49	32	1	13.73	3.13	
	50-59	52	12	22.32	23.08	
	60-69	42	15	18.03	35.71	
	>70	46	24	19.74	52.17	
	Total	233	54			

COVID-19	Age	COVID-19- infection cases in China	COVID-19 death cases in China	Infection ratio(%)	Death ratio(%)	References
	<19	965	1	2.16	0.10	1
	20-29	3619	7	8.10	0.19	
	30-39	7600	18	17.01	0.24	
	40-49	8571	38	19.19	0.44	
	50-59	10008	130	22.40	1.30	
	60-69	8583	309	19.21	3.60	
	>70	5326	520	11.92	9.76	
	Total	44672	1023			

Fig.2.E
References: Table-S1-Fig.1 data

Fig.2.A MERS-CoV detail data

MERS-nCoV		Infection cases in Jordan	Death cases in Jordan	Infection cases in Saudi Arabia	Death cases in Saudi Arabia	Infection cases	Death cases	Infection cases in South Korea	Death cases in South Korea	Total Infection	Total Death	Death ratio(%)	Reference s
	<19	2	0	1	0		0	1	0	4	0	0	6

	20-29	1	0		0	5	0	13	0	19	0	0	7
	30-39	2	0	1	1	9	0	26	1	38	2	5.26	8
	40-49	1	0	1	0	1	0	29	1	32	1	3.13	
	50-59	3	3	7	3		0	42	6	52	12	23.08	
	60-69	4	2	2	2		0	36	11	42	15	35.71	
	>70	3	2	4	4		0	39	18	46	24	52.17	
		16	7	16	10	15	0	186	37	233	54		

Fig.2.A SARS-CoV detail data

SARS-nCoV	Age	SARS-nCoV Beijin infection cases inChina	SARS-nCoV Beijin death cases in China			SARS-nCoV Guangzhou infection cases in China	SARS-nCoV Guangzhou death cases inChina	Total infection cases	Infection ratio(%)	Total death cases	Death ratio(%)	Referenc es
	<19	189	1		<19	111	2	300	7.92	3	1.00	2,9
	20-29	781	10		20-29	353	2	1134	29.93	12	1.06	
	30-39	567	19		30-39	310	5	877	23.15	24	2.74	
	40-49	474	32		40-49	202	10	676	17.84	42	6.21	
	50-59	228	38		50-59	123	7	351	9.26	45	12.82	
	60-69	149	37		60-69	93	11	242	6.39	48	19.83	
	>70	130	55		>70	79	11	209	5.52	66	31.58	
Total								3789				

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Table-S1-Fig.3

	SRAS-CoV	MERS-CoV	COVID-19	References
Days for max virus loads after onset	7-10 ^{1,4,5}	3-13 ^{6,8}	-0.7-6 ^{1,2,3, 7}	
Max virus loads in the upper respiratory tract(log10)	5.5-8 ⁴	5-6.6 ^{6,8}	6.5-8.85 ¹	
Basic reproduction number(R0)	2-5	2.5-8.09	1.5-6.9	8,9,10,11
The average Incubation period (Day)	4.3-5.1	4.5-7.8	4.4-5.5	12,13,14 ,14,15
Maximum incubation period (Day)	20 ¹⁶	21 ¹⁷	27 ¹⁸	
Infection rate of close contacts of asymptomatic 2019-nCoV carriers (%)	0	0	4.1 ¹⁹	

Fig.3B	20,21		

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Table-S1-Fig.4

Fig4.A-D	Supplementary S1				
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Fig4.E					
Name	Infected cases	HCWs infection cases	HCWs infection ratio in infected cases(%)		References
SRAS-CoV(Update 20030807)	8096	1706	21.07		4
MERS-CoV(Update 20190901)	2223	415	18.67		5
COVID-19(Update 20200327)	189320	18668	9.86		Fig.4.E COVID-19 detail data

Fig4.F	Supplementary S1				
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Fig.4.E COVID-19 detail data					
	Confirmed cases	HCWs infection cases	HCWs infection ratio in confirmed cases(%)		
Spain	64059	9444	14.74	Update 20200327	1
Italy	80589	6205	7.70	Update 20200327	2
China	44672	3019	6.76	Update 20200223	3
Total	189320	18668	9.86		

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Table-S1-Fig.5

Date	Native new confirmed cases in China	New imported confirmed cases in China	Native new asymptomatic cases in China	New imported asymptomatic cases in China	Confirmed cases transformed from asymptomatic infection	References
4-01	0	35	38	17	9	http://www.nhc.gov.cn/xcs/yqfkd/gzbd_index.shtml
4-02	2	29	53	7	7	
4-03	1	18	38	26	3	
4-04	5	25	31	16	3	
4-05	1	38	38	40	5	
4-06	0	32	21	9	2	
4-07	3	59	35	102	11	
4-08	2	61	28	28	15	
4-09	4	38	33	14	14	
4-10	4	42	27	7	14	
4-11	2	97	51	12	14	
4-12	10	98	49	12	28	
4-13	3	86	49	5	67	
4-14	10	36	54	3	7	
4-15	12	34	61	3	6	
4-16	11	15	63	3	10	
4-17	10	17	51	3	9	
4-18	9	7	41	3	0	
4-19	4	8	44	5	0	
4-20	7	4	35	2	3	
Total	100	779	840	317	227	
Total infection cases		879		1157		