



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health & Indigenous Medical Services

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How did China control COVID-19? Part II

Seven Steps have introduced for the Prevention and Control COVID 19

1. Personal protective measures

Hand hygiene was given the highest priority. The value of it has been emphasized to the public by all possible means. The general public was not advised to wear a face mask when at home or in open areas. However, it was recommended when the community transmission sets in and in closed public environments (elevators, public transport), high-risk areas (hospitals, clinics) and face-to-face interactions.

2. Physical distancing

All forms of crowd gatherings were suspended and those who engaged and advocates were rigorously punished according to the law of the country. Further gatherings were discouraged by extended holidays, closed down the schools, factories etc. The factory owners have organized their work teams in batches, many operational areas were partitioned and duty-off hours were given to minimize the crowd gathering.

3. Detection, Isolation and Quarantine

Chinese have given very high priority to this measure. Not just carrying out but implementing these measures as early as possible was the key to success.

Four EARLY measures

- Early detection
- Early reporting

- Early isolation
- Early treatment

Early detection leads to early commencement of the treatment. Further, when identified the patient early they are likely to be in the early stages of the disease, as a result, the cure rate will be invariably high. Additionally, the number that they can spread the disease to others would be minimal. Moreover, the contacts of the identified person can be traced early and could carry out the quarantine activities. All these measures had considerably helped to control the spread of the disease.

Early detection

Primary level health institutes were given the task to screen the people who travelled to or resides in Wuhan and areas where confirmed cases within the past 14 days. They have strengthened the existing Influenza-Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) surveillance systems to support the screening. Temperature screening has been established in ports followed by medical examinations.

Early reporting

The online reporting system was used to report the confirmed, suspected and asymptomatic infected cases instantly. As soon as it is reported, the field verification has to be started. At the end of the verification, the report should be sent back to the main center. The recommended time gap to complete the field verification from the

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initial reporting was 2 hours. Following the verification, the epidemiological investigations should begin. They have to be completed within 24 hours and the main purposes were to identify the contacts and clusters of cases. In Wuhan, contact tracing was done by more than 1800 teams of Epidemiologist. Out of these contacts, 1-5% subsequently became laboratory-confirmed cases. There were standard protocols for each activity prepared by the China CDC. All the suspected and asymptomatic infected cases need to be followed up and report back if their status has changed over time.

Early Isolation

Suspected cases also isolated and tested. They were ruled out by virus nuclear acid test on two consecutive days and specific IgM and IgG tests negative 7 days after the onset of symptoms. Asymptomatic infected cases were removed by the isolation after conducting two consecutive virus nuclear acid tests. Once the diagnosed patient is being discharged from the hospital, he/she further advised being on home quarantine for a period of 14 days.

Early Treatment

All the confirmed cases had been isolated and transferred to specialized health care facilities for treatment promptly. These hospitals were equipped with all the facilities and provided the most updated COVID-19 diagnosis and treatment protocol.

4. Travel related measures

Measures to restrict the travel was helpful to maintain social distancing and avoid crowd gathering. This includes suspending public transport, closure of entry to towns, closure of airports/seaports.

5. Infection, prevention and control

Acquiring the disease from hospitals and other healthcare settings were highly controlled. This was done by limiting the number of visitors to the hospital, restrict elderly to visit the hospital to see patients who are taking inward care. Strict adherence to a nosocomial infection control and prevention measures were carried out according to the national guidelines. Further, these guidelines included the hospital air purification management guidelines and medical waste disposal regulations. As a result of all these measures, the infection rate among health care workers was minimal. Those who infected also mainly acquired the disease from household contacts.

6.Environmental measures

Routine cleaning had been enhanced during the outbreak. All the public places were cleaned with relevant detergent solu-

tions. Door and the windows of most of the public places were kept open for increased ventilation.

7. Social mobilization

All the media including the social media was effectively utilized to convey the correct messages to the public. The value of physical distancing, correct usage of PPE, prevention and controlled measures in place were being constantly aired and which helped to communicate the real gravity of the disease to the public. Further, social media was regularly monitored to understand public opinion and prompt responding to their questions.

Finally, it is worth mentioning the value of joint efforts of all the stakeholders to combat the disease. Cross-sectoral information sharing, regular discussion to assess the disease trends and the actions to be taken and continuous monitoring of the case follow up process and the contact tracing mechanisms were really helpful to achieve the goal.

Chinese have given a lot of emphasis for research activities to the COVID-19 from the beginning. As a result, many researchers were encouraged to conduct drug treatment trials, vaccine development trials. Further, they were stimulated to look into the possibilities of using Traditional Chinese Medicine to treat COVID patients or to prevent the disease.

Following were the early predictors of the severe cases which came out from their preliminary research findings.

In adults,

- The progressive decline of peripheral blood lymphocytes
- Progressive elevation of inflammation of biomarkers: CRP or IL-6
- The gradual rise of lactic acid
- Pulmonary infiltration

In children,

- Tachypnea
- Somnolence
- The gradual rise of lactic acid
- Bilateral or multi-lobe infiltration
- Infants less than 3 months with comorbidities (congenital heart disease, Broncho pulmonary dysplasia, deformities of the respiratory tract, abnormal haemoglobinemia and severe malnutrition) or immunity deficiency or compromise (long-term use of immunosuppressant)

Editor

Table 1: Selected notifiable diseases reported by Medical Officers of Health 21st - 28th Feb 2020 (09th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis			WRCD		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	T*	C**	
Colombo	175	2451	0	7	0	3	0	3	0	13	4	49	0	0	0	0	2	0	0	15	96	0	11	0	0	0	98	54
Gampaha	107	1501	0	3	0	0	2	3	0	0	1	26	1	1	0	0	0	0	0	33	156	2	7	0	13	100	47	
Kalutara	58	809	0	5	0	4	0	3	0	1	10	70	1	6	0	0	0	0	22	93	1	9	0	0	100	59		
Kandy	51	964	2	6	0	1	1	7	4	4	2	13	5	32	0	1	0	0	13	54	1	12	4	20	100	63		
Matale	27	386	0	3	0	2	0	1	0	3	2	13	0	2	0	2	0	1	3	19	0	1	14	91	100	59		
NuwaraEliya	12	112	0	6	0	0	0	0	0	0	3	12	8	32	1	1	0	0	5	27	0	3	0	0	100	15		
Galle	29	896	1	9	0	6	0	2	0	12	16	140	0	19	0	1	0	0	16	148	4	12	0	2	98	55		
Hambantota	17	234	0	4	0	0	0	1	0	10	2	49	1	11	0	2	0	0	7	72	3	7	14	185	100	69		
Matarata	22	346	1	7	0	3	0	0	0	0	4	77	0	4	0	6	0	0	4	63	0	4	16	117	99	50		
Jaffna	96	1551	3	28	0	0	3	14	1	15	1	9	22	390	0	0	0	1	10	38	0	2	0	0	93	31		
Kilinochchi	6	95	1	8	0	0	0	2	0	0	1	5	1	12	0	0	0	0	1	3	0	3	1	2	100	64		
Mannar	4	115	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	2	0	100	47		
Vavuniya	21	211	0	3	0	0	0	3	0	0	1	29	1	1	0	0	0	0	2	8	0	3	1	1	100	47		
Mullaitivu	1	58	0	3	0	0	0	2	0	1	0	9	0	2	0	0	0	1	1	2	0	0	1	4	70	45		
Batticaloa	115	1738	7	28	0	0	0	0	1	3	1	11	0	0	0	0	0	0	3	40	0	9	0	1	100	59		
Ampara	11	240	1	5	0	1	0	0	0	0	1	19	0	0	0	0	0	0	1	36	0	7	0	4	100	62		
Trincomalee	71	1990	0	4	0	0	0	0	0	1	0	10	1	2	0	0	0	0	4	46	0	5	0	0	90	49		
Kurunegala	28	595	0	5	0	3	0	2	0	27	6	52	2	10	0	1	0	0	38	180	1	5	8	119	100	52		
Puttalam	19	302	0	5	0	1	0	2	0	0	1	15	0	9	0	0	0	1	11	45	0	12	0	2	99	67		
Anuradhapura	17	273	2	7	0	1	0	2	0	19	1	106	2	9	0	1	0	1	4	68	1	12	0	63	95	54		
Polonnaruwa	14	158	0	4	0	0	0	0	0	0	1	48	0	0	0	2	0	0	4	44	2	8	7	68	100	60		
Badulla	15	321	1	6	0	1	0	2	0	3	11	75	1	8	1	6	0	0	6	57	1	12	0	2	100	58		
Monaragala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ratnapura	42	497	0	27	1	10	0	1	1	12	27	216	0	9	3	8	0	0	11	82	3	30	10	28	99	45		
Kegalle	25	303	1	4	0	3	0	1	2	12	6	57	0	13	0	2	0	0	10	72	0	8	0	8	100	58		
Kalmune	35	758	0	21	0	2	0	0	1	1	0	2	0	2	0	0	0	0	21	99	3	11	0	0	100	76		
SRILANKA	1018	16904	20	208	1	41	6	51	10	137	10	111	46	575	5	35	0	5	245	1548	22	195	76	730	95	54		

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 28th February, 2020 Total number of reporting units 356 Number of reporting units data provided for the current week: 328 C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

22nd – 28th Feb 2020 (09thWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2020	Number of cases during same week in 2019	Total number of cases to date in 2020	Total number of cases to date in 2019	Difference between the number of cases to date in 2020 & 2019
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	03	06	19	- 68.4 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	02	00	00	02	00	01	00	00	01	06	06	35	66	- 46.9 %
Measles	02	01	00	01	03	00	00	00	00	07	01	13	34	- 61.7 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	01	03	04	0 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	- 25 %
Japanese Encephalitis	00	00	00	00	00	00	00	00	01	01	00	08	02	300 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	03	02	16	- 87.5 %
Tuberculosis	127	19	12	01	05	12	06	04	21	207	203	1198	1242	- 3.5 %

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:
Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,
Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis
CRS** =Congenital Rubella Syndrome

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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