

Using New Media for Health Education and Communication during the COVID-19 Outbreak

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Abstract

To keep up with the times, it has become a trend for government agencies to use different new social media in a timely manner to increase the accessibility and mobility in health education and communication.

In this article we described the health education communication during the COVID-19 epidemic as an example to explore how we used new media channels such as social media platforms, communication software, and audio-visual platforms to establish effective communication models during emerging infectious disease outbreaks, so that correct information and epidemic prevention policies could be communicated to the public in a timely manner, and how we dealt with negative impacts of misinformation.

We concluded that the convenience and easy-to-read nature of new media for health education communication could effectively enhance the spread of health education messages. Through real-time monitoring of online public opinion and rapid dissemination of clarification messages with multiple channels, the disturbance of harm and damage could be reduced in the first instance. Making good use of the advantages of new media, including its immediacy and affinity, and formulating appropriate responses to negative influences, clearly have positive effects on policy communication and promotion.

Keywords: COVID-19, new media, health education and communication, YouTube, Facebook, LINE, misinformation

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Interim Epidemiological Analysis of The SARS-CoV-2 Omicron Wave in Taiwan, January–June 2022

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Abstract

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) Omicron variant appeared in Taiwan in the beginning of 2022 and resulted in the most severe wave of COVID-19 nationwide. At the beginning of this wave, the effective reproduction number (R_t) was around 2 and started to decrease as confirmed patients accumulated. By July 3, a total of 3,840,958 patients were confirmed to have COVID-19. Among them, 16,535 patients had moderate to severe symptoms, whose age ranged between 0–110 years (median: 79 years), and 14,117 (85%) were aged >60 years. The risk for having moderate to severe disease increased with age. These data reflected that the strategies against SARS-CoV-2 epidemic in Taiwan had transited from containment/elimination to mitigation. Continued easing of restrictions without exerting excess burden on the healthcare systems will be the next mission.

Keywords: SARS-CoV-2, COVID-19, Omicron, Taiwan, epidemiology

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Weekly Data of Notifiable Inases (by week of diagnosis)

Case diagnosis year		Week 48★		Week 1–48			
Classification	Disease Diagnosed	2022	2021	2022		2021	
				Total cases★	Imported cases	Total cases★	Imported cases
Category I	Plague	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0
	SARS	0	0	0	0	0	0
	Smallpox	0	0	0	0	0	0
Category II	Acute Flaccid Paralysis	0	1	29	0	28	0
	Acute Viral Hepatitis type A	1	3	117	1	70	0
	Amoebiasis	3	2	186	59	182	64
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	1	1	1	1
	Cholera	1	0	2	0	0	0
	Dengue Fever	1	1	80	60	12	12
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	2	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus syndrome	1	0	5	0	2	0
	Malaria	0	0	2	2	1	1
	Measles	0	0	1	0	0	0
	Meningococcal Meningitis	0	0	1	0	3	0
	Paratyphoid Fever	0	0	6	0	2	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
	Shigellosis	3	2	80	7	116	0
	Typhoid fever	0	1	4	2	3	1
	West Nile Fever	0	0	0	0	0	0
Zika virus infection	0	0	0	0	0	0	
Monkeypox	0	-	4	4	-	-	
Category III	Acute Viral Hepatitis type B	2	2	98	0	130	2
	Acute Viral Hepatitis type C	13	11	458	1	511	0
	Acute Viral Hepatitis type D	0	0	0	0	1	0
	Acute Viral Hepatitis type E	0	0	11	0	5	0
	Congenital Syphilis	0	0	0	0	0	0
	Congenital Rubella Syndrome	0	0	0	0	0	0
	Enteroviruses Infection with Severe Complications	0	0	0	0	1	0
	Haemophilus Influenza type b Infection	0	0	2	0	1	0
	Japanese Encephalitis	0	0	19	0	28	0
	Legionnaires' Disease	13	7	328	2	329	1
	Mumps	8	5	282	1	384	1
	Neonatal Tetanus	0	0	0	0	0	0
Pertussis	0	0	1	0	0	0	
Tetanus	0	0	8	0	3	0	
Category IV	Botulism	0	0	0	0	0	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	1	1	31	0	50	0
	Endemic Typhus Fever	0	1	15	0	31	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complications	3	0	13	1	1	0
	Invasive Pneumococcal Disease	8	1	170	0	183	0
	Leptospirosis	1	0	63	0	80	0
	Listeriosis	8	1	136	0	155	0
	Lyme Disease	0	0	1	1	1	1
	Melioidosis	0	0	23	1	19	0
	Q Fever	0	0	3	0	8	0
	Scrub Typhus	4	7	258	0	286	0
Toxoplasmosis	1	1	27	0	15	0	
Tularemia	0	0	0	0	1	0	
Category V	Ebola Virus Disease	0	0	0	0	0	0
	Lassa Fever	0	0	0	0	0	0
	Marburg Hemorrhagic Fever	0	0	0	0	0	0
	Middle East Respiratory Syndrome	0	0	0	0	0	0
	Coronavirus Infections	0	0	0	0	0	0
	Novel Influenza A Virus Infections	0	0	0	0	1	0
	Rift Valley Fever	0	0	0	0	0	0
	Severe Pneumonia with Novel Pathogens	101506	64	8352136	35516	15844	1310
Yellow Fever	0	0	0	0	0	0	

- ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
- MDR-TB, Tuberculosis, Syphilis, Gonorrhoea, HIV Infection, AIDS, Hansen's Disease and Creutzfeldt-Jakob Disease are excluded from the table.
- Numbers of mumps and tetanus cases are summed up by the week of report.
- Since 2022/6/23, " Monkeypox " was listed as a Notifiable Infectious Disease.
- Hantavirus Syndrome was applied since September 6, 2021.

Suspected Clusters

- Nine clusters related to diarrhea (3), tuberculosis (2) and upper respiratory tract infection (4) were reported during week 48.

Imported Infectious Diseases

- There were 394 imported cases from 22 countries during week 48.
 - Severe Pneumonia with Novel Pathogens:** 391 cases from Japan (15), Thailand (11), Vietnam (7), Korea (6), UK(5), Malaysia(5), USA(5), and the remaining 15 countries have less than 5 cases, 309 unknowns.
 - Dengue Fever:** 1 case from Vietnam.
 - Mumps:** 1 case from unknown.
 - Shigellosis:** 1 case from Indonesia.
- During week 1–48, there were 35659 imported cases from 130 countries. The top three countries are Vietnam (4097), USA (2469), Indonesia (1340).
- During week 1–48, the notifiable diseases with the highest number of imported cases is Severe Pneumonia with Novel Pathogens (35516).

Summary of Epidemic

- **Severe Pneumonia with Novel Pathogens** : The number of daily new COVID-19 cases is declining in Taiwan, but the rate of decline is slower.

Weekly Data of Notifiable Inases (by week of diagnosis)

Case diagnosis year		Week 49★		Week 1-49			
Classification	Disease Diagnosed	2022	2021	2022		2021	
				Total cases★	Imported cases	Total cases★	Imported cases
Category I	Plague	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0
	SARS	0	0	0	0	0	0
	Smallpox	0	0	0	0	0	0
Category II	Acute Flaccid Paralysis	1	0	30	0	28	0
	Acute Viral Hepatitis type A	1	1	118	1	71	0
	Amoebiasis	3	5	189	59	187	64
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	1	1	1	1
	Cholera	0	0	2	0	0	0
	Dengue Fever	0	0	80	60	12	12
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	2	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus syndrome	0	0	5	0	2	0
	Malaria	0	1	2	2	2	2
	Measles	0	0	1	0	0	0
	Meningococcal Meningitis	0	0	1	0	3	0
	Paratyphoid Fever	0	0	6	0	2	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
	Shigellosis	0	2	80	7	118	0
	Typhoid fever	0	0	4	2	3	1
	West Nile Fever	0	0	0	0	0	0
Zika virus infection	0	0	0	0	0	0	
Monkeypox	0	-	4	4	-	-	
Category III	Acute Viral Hepatitis type B	2	2	100	0	132	2
	Acute Viral Hepatitis type C	15	9	473	1	520	0
	Acute Viral Hepatitis type D	0	0	0	0	1	0
	Acute Viral Hepatitis type E	0	0	11	0	5	0
	Congenital Syphilis	0	0	0	0	0	0
	Congenital Rubella Syndrome	0	0	0	0	0	0
	Enteroviruses Infection with Severe Complications	0	0	0	0	1	0
	Haemophilus Influenza type b Infection	0	0	2	0	1	0
	Japanese Encephalitis	0	0	19	0	28	0
	Legionnaires' Disease	9	14	337	2	343	1
	Mumps	3	7	285	1	391	1
	Neonatal Tetanus	0	0	0	0	0	0
	Pertussis	0	0	1	0	0	0
Tetanus	0	2	8	0	5	0	
Category IV	Botulism	0	0	0	0	0	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	0	1	31	0	51	0
	Endemic Typhus Fever	1	0	16	0	31	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complications	1	0	14	1	1	0
	Invasive Pneumococcal Disease	8	1	178	0	184	0
	Leptospirosis	3	0	66	0	80	0
	Listeriosis	4	2	140	0	157	0
	Lyme Disease	0	0	1	1	1	1
	Melioidosis	0	1	23	1	20	0
	Q Fever	0	0	3	0	8	0
	Scrub Typhus	3	5	261	0	291	0
Toxoplasmosis	0	0	27	0	15	0	
Tularemia	0	0	0	0	1	0	
Category V	Ebola Virus Disease	0	0	0	0	0	0
	Lassa Fever	0	0	0	0	0	0
	Marburg Hemorrhagic Fever	0	0	0	0	0	0
	Middle East Respiratory Syndrome	0	0	0	0	0	0
	Coronavirus Infections	0	0	0	0	0	0
	Novel Influenza A Virus Infections	1	0	1	0	1	0
	Rift Valley Fever	0	0	0	0	0	0
	Severe Pneumonia with Novel Pathogens	100968	85	8453096	35861	15929	1392
Yellow Fever	0	0	0	0	0	0	

1. ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
2. MDR-TB, Tuberculosis, Syphilis, Gonorrhea, HIV Infection, AIDS, Hansen's Disease and Creutzfeldt-Jakob Disease are excluded from the table.
3. Numbers of mumps and tetanus cases are summed up by the week of report.
4. Since 2022/6/23, " Monkeypox " was listed as a Notifiable Infectious Disease.
5. Hantavirus Syndrome was applied since September 6, 2021.

Suspected Clusters

- Eleven clusters related to diarrhea (6), tuberculosis (2) and upper respiratory tract infection (3) were reported during week 49.

Imported Infectious Diseases

- There were 341 imported cases from at least 13 countries / areas during week 49.
Severe Pneumonia with Novel Pathogens: 341 cases from Japan (19), USA (7), Vietnam (5), Korea (4), Hong Kong (3), Germany (2), Turkey (2), Thailand (2), France (1), Australia (1), Greece (1), China (1), UK (1), 292 unknowns.
- During week 1–49, there were 36004 imported cases from at least 130 countries / areas. The top three countries are Vietnam (4103), USA (2476), Indonesia (1341).
- During week 1–49, the notifiable diseases with the highest number of imported cases is Severe Pneumonia with Novel Pathogens (35861).

Summary of Epidemic

- **Severe Pneumonia with Novel Pathogens :** The number of daily new COVID-19 cases is increasing in Taiwan. Due to the large-scale activities and gatherings increase at the end of the year, the risk of epidemic spread is rising.

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