

### **An Experience of Establishing A Sampling Site at Kaohsiung International Airport in Response to COVID-19 Pandemic, 2020**

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#### **Abstract**

In response to the outbreak of COVID-19, Taiwan implemented strict border control measures and entry restrictions immediately. According to the policy of the Central Epidemic Command Center (CECC), the quarantine officers at the international ports of entry have to send the inbound passengers showing COVID-19 suspected symptoms along with the specific travel history to designated hospitals for further medical evaluation. As the continued spread of COVID-19, the number of passengers sent to the designated hospitals increased, but the ratio of hospitalized passengers was low. In order to reduce the burden of designated hospitals and enhance our COVID-19 sampling capacity, an on-site sampling station was established at Kaohsiung Airport on February 26, 2020. Inbound passengers with specific travel history and COVID-19 suspected symptoms, instead of being sent to the hospitals, could go home waiting for the test results after on-site sampling.

The medical team of Kaohsiung Airport Sampling Station was consisted of medical professionals from 6 medical centers in southern Taiwan and operated for 26 days during the hardest time of COVID-19 epidemic in Taiwan. In this period, 153 medical person-time were involved in on-site sampling task and 129 inbound travelers were sampled. Since the CECC announced that all inbound passengers should be subjected to a 14-day home quarantine after March 19, 2020, the number of international flights and

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passengers decreased abruptly, which led to a drop of on-site sampling demand. In consideration of cost-effectiveness, the Kaohsiung Airport Sampling Station temporally closed on March 22, 2020. Nevertheless, under the continuing threat of COVID-19 pandemic, Kaohsiung Airport Sampling Station is always prepared to re-operate for fighting the disease.

**Keywords:** Severe Pneumonia with Novel Pathogens, COVID-19, Sampling station

week 38–39( Sep. 19–Oct. 2, 2021)

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Weekly Data of Notifiable Infectious Diseases (by week of diagnosis)

Case diagnosis year		Week 38★		Week 1–38			
Classification	Disease Diagnosed	2021	2020	2021		2020	
				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	0	23	0	20	0
	Acute Viral Hepatitis type A	2	1	53	0	62	7
	Amoebiasis	1	4	147	51	175	102
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	1	1	3	3
	Cholera	0	0	0	0	1	0
	Dengue Fever	1	5	9	9	84	63
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	0	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus Pulmonary Syndrome	0	0	0	0	0	0
	Hemorrhagic Fever with Renal Syndrome	0	0	9	0	9	0
	Malaria	0	0	1	1	1	1
	Measles	0	0	0	0	2	2
	Meningococcal Meningitis	1	0	3	0	5	0
	Paratyphoid Fever	0	0	2	0	0	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
Shigellosis	1	1	96	0	111	21	
Typhoid fever	0	1	1	0	6	3	
West Nile Fever	0	0	0	0	0	0	
Zika virus infection	0	0	0	0	2	2	
Category III	Acute Viral Hepatitis type B	0	7	97	2	77	2
	Acute Viral Hepatitis type C	7	12	406	0	450	4
	Acute Viral Hepatitis type D	0	0	0	0	0	0
	Acute Viral Hepatitis type E	0	0	5	0	7	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	1	0	7	0
	Haemophilus Influenza type b Infection	0	0	1	0	3	0
	Japanese Encephalitis	0	0	26	0	21	0
	Legionnaires' Disease	3	8	256	0	210	8
	Mumps	5	9	324	1	361	6
	Neonatal Tetanus	0	0	0	0	0	0
Pertussis	0	0	0	0	8	0	
Tetanus	0	0	3	0	7	0	
Category IV	Botulism	0	0	0	0	1	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	0	1	37	0	31	0
	Endemic Typhus Fever	0	0	26	0	15	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complications	0	0	1	0	548	6
	Invasive Pneumococcal Disease	2	2	168	0	185	0
	Leptospirosis	1	6	47	0	55	0
	Listeriosis	6	1	130	0	104	0
	Lyme Disease	0	0	0	0	0	0
	Melioidosis	0	1	16	0	14	1
	Q Fever	0	0	8	0	12	0
	Scrub Typhus	4	11	192	0	290	1
Toxoplasmosis	1	0	11	0	6	0	
Tularemia	0	0	1	0	0	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	1	0	0	0
	Rift Valley Fever	0	0	0	0	0	0
Severe Pneumonia with Novel Pathogens	48	8	15381	858	506	451	
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 2020/1/15, "Severe Pneumonia with Novel Pathogens" was listed as a Notifiable Infectious Disease.

## Suspected Clusters

- Eleven clusters related to diarrhea(7) and tuberculosis(4) were reported during week 38.

## Imported Infectious Diseases

- There were 44 imported cases from 18 countries during week 38.  
**Severe Pneumonia with Novel Pathogens** : 43 (Myanmar 6, Philippines 5, UK 5, USA 5, Indonesia 4, UAE 3, Cambodia 3, Vietnam 2, Bangladesh 1, Russia 1, Belize 1, Eswatini 1, Ethiopia 1, Austria 1, India 1, Japan 1, Kenya 1, South Africa 1 ).  
**Dengue Fever** : 1 (Vietnam 1)
- During week 1–38, there were 923 imported cases from 76 countries. The top three countries are the Philippines(180), Indonesia(177), and USA(125).
- During week 1–38, the three notifiable diseases with the highest number of imported cases are Severe Pneumonia with Novel Pathogens(858), Amoebiasis(51), and Dengue Fever(9).

## Summary of Epidemic

- **Severe Pneumonia with Novel Pathogens** : The epidemic is in the low level. Keeping monitoring impact of the epidemic two weeks after the Mid-Autumn Festival.
- **Japanese Encephalitis** : The epidemic reaches its peak and still in the midst of Japanese Encephalitis season. Individuals living in all counties/cities in Taiwan are at risk of infection.

**Weekly Data of Notifiable Infectious Diseases (by week of diagnosis)**

Case diagnosis year		Week 39★		Week 1–39			
Classification	Disease Diagnosed	2021	2020	2021		2020	
				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	2	1	25	0	21	0
	Acute Viral Hepatitis type A	0	4	53	0	66	8
	Amoebiasis	5	12	152	51	187	106
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	1	1	3	3
	Cholera	0	0	0	0	1	0
	Dengue Fever	0	10	9	9	94	64
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	0	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus Pulmonary Syndrome	0	0	0	0	0	0
	Hemorrhagic Fever with Renal Syndrome	0	0	9	0	9	0
	Malaria	0	0	1	1	1	1
	Measles	0	0	0	0	2	2
	Meningococcal Meningitis	0	0	3	0	5	0
	Paratyphoid Fever	0	0	2	0	0	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
Shigellosis	1	1	97	0	112	21	
Typhoid fever	0	0	1	0	6	3	
West Nile Fever	0	0	0	0	0	0	
Zika virus infection	0	0	0	0	2	2	
Category III	Acute Viral Hepatitis type B	3	3	100	2	80	2
	Acute Viral Hepatitis type C	8	8	414	0	458	4
	Acute Viral Hepatitis type D	1	0	1	0	0	0
	Acute Viral Hepatitis type E	0	1	5	0	8	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	1	0	7	0
	Haemophilus influenzae type b Infection	0	0	1	0	3	0
	Japanese Encephalitis	0	0	26	0	21	0
	Legionnaires' Disease	11	2	267	0	212	8
	Mumps	2	15	326	1	376	6
	Neonatal Tetanus	0	0	0	0	0	0
	Pertussis	0	0	0	0	8	0
Tetanus	0	0	3	0	7	0	
Category IV	Botulism	0	0	0	0	1	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	5	0	42	0	31	0
	Endemic Typhus Fever	0	1	26	0	16	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complications	0	0	1	0	548	6
	Invasive Pneumococcal Disease	0	3	168	0	188	0
	Leptospirosis	7	3	54	0	58	0
	Listeriosis	2	0	132	0	104	0
	Lyme Disease	0	0	0	0	0	0
	Melioidosis	0	1	16	0	15	1
	Q Fever	0	0	8	0	12	0
	Scrub Typhus	9	5	201	0	295	1
Toxoplasmosis	0	1	11	0	7	0	
Tularemia	0	0	1	0	0	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	1	0	0	0
	Rift Valley Fever	0	0	0	0	0	0
	Severe Pneumonia with Novel Pathogens	61	4	15442	917	510	455
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, Gonorrhoea, 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 2020/1/15, "Severe Pneumonia with Novel Pathogens" was listed as a Notifiable Infectious Disease.

## Suspected Clusters

- Thirteen clusters related to diarrhea(6), tuberculosis(6) and varicella(1) were reported during week 39.

## Imported Infectious Diseases

- There were 59 imported cases from 20 countries during week 39.  
**Severe Pneumonia with Novel Pathogens** : 59 (USA 11, Myanmar 8, Indonesia 5, Japan 4, Cambodia 3, Philippines 3, UK 3, Vietnam 3, Malaysia 2, Kazakhstan 2, Eswatini 2, Singapore 2, Thailand 1, Denmark 1, Russia 1, Pakistan 1, Mongolia 1, Honduras 1, Nicaragua 1, Somaliland 1, undetermined 3).
- During week 1–39, there were 982 imported cases from 80 countries. The top three countries are the Philippines(185), Indonesia(180), and USA(136).
- During week 1–39, the three notifiable diseases with the highest number of imported cases are Severe Pneumonia with Novel Pathogens(917), Amoebiasis(51), and Dengue Fever(9).

## Summary of Epidemic

- **Severe Pneumonia with Novel Pathogens** : Due to the COVID-19 pandemic remains serious globally, imported cases continue to be confirmed. The risk of locally-acquired of SARS-CoV-2 infection in Taiwan is persistence.

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