## Bangkok



"Countermeasures to combat COVID19 Crisis: The Bangkok Model"



## Countermeasures to combat COVID19 Crisis: The Bangkok Model

Health Department,
Bangkok Metropolitan Administration (BMA)

The Bangkok Metropolitan Administration would like to present "Bangkok Model to combat COVID 19 Crisis"



## **Outline**

- Overview COVID-19 infection in Bangkok
- Organizational and structure for Infection control
- Situation analysis and surveillance system
- Outbreak Investigation
- COVID-19 cases Management
- COVID-19 immunization Program
- Bangkok Comprehensive COVID-19 Response Team

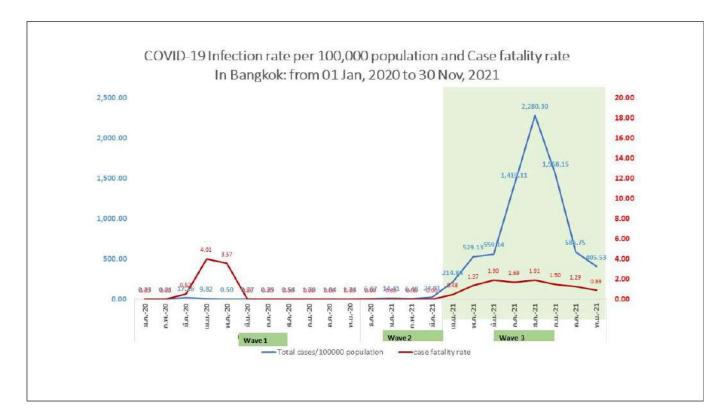
This is outline of the presentation.

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Overview COVID-19 Outbreak in Bangkok



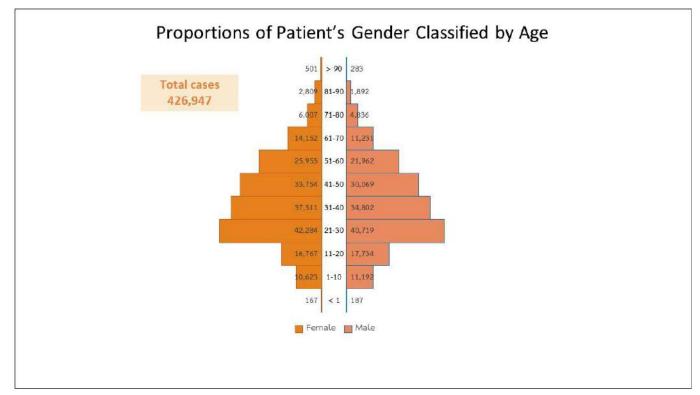
Let's explore the Overview of COVID-19 Infection in Bangkok.



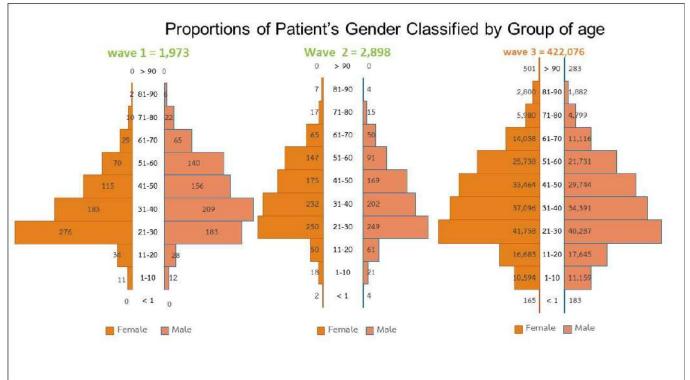
An outbreak of COVID-19 in Bangkok occurred in 3 waves. The 1st wave occurred during February 2020 to December 2020. The outbreak was triggered from boxing event, entertainment complex, night clubs and citizens returning from abroad. The Bangkok Metropolitan Administration, as the 1st province of Thailand, announced the partial Lockdown in Bangkok area, then followed by the national lockdown imposed by Thai government. In the early state of the 1st wave pandemic, Thailand did not have a specific treatment and the patients were a group of adults and the elderly, so the mortality rate was up to 4%. Meanwhile, the announcement of temporary closure of the premise such as entertainment complex was continuously imposed, and festive events are prohibited.

The lockdown was loosed on 1 July 2020.

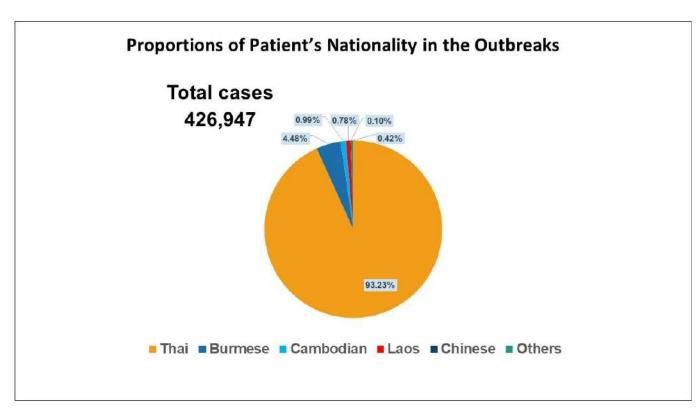
The 2nd outbreak to begin in the middle of December 2020. The Seafood Market in Samut Sakhon, the coastal province near the capital Bangkok and home to the market which employs mostly migrant workers, was the epicentre of the new outbreak. The pandemic then widely spread out in Bangkok. Therefore, Bangkok was hit by the 2nd wave in January to February 2021. The outbreak seems to be controllable in the early state because only close contact tracing persons were found infected. However, the 3rd wave of the outbreak returned in early March 2021 because the "Delta strain " dispersed rapidly. It found that over 95% of confirmed cases exposed to the disease with Delta strain. Also, there was a problem of disease control as every hospital exceeded its capacity. Therefore, patients with mild symptoms or no risk of severe disease were isolated and to be treated at home or hospital. The treatment guidelines were implemented nationwide by giving Favipiravir; antivirus medicine as soon as possible, or within 4 days after the infection was detected. Then, it found that morbidity and mortality rates have dropped sharply in July 2021 after treatment by Favipiravir.



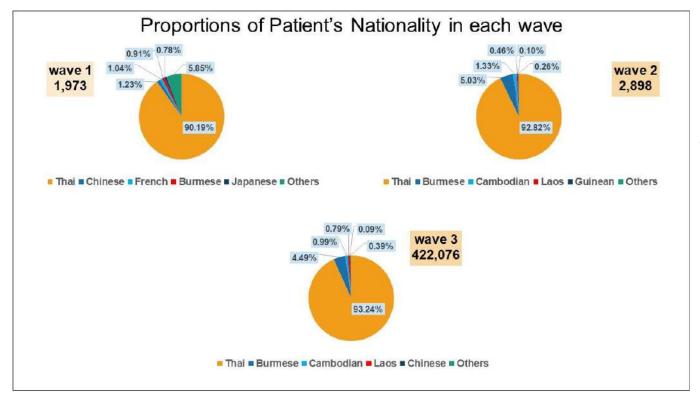
When we classify the patients by ages, it was found that the highest number of patients was in the working age, and they are most likely to be men as much as women.



If we classify the pandemic by age and gender, it's found that in children was the most infected group of the 3rd wave, because they have not been vaccinated.



The number of foreigners accounted for approximately 7% of the total number of patients among the 3 outbreaks.



If we classify the pandemic by outbreaks, it's found that up to 10% of the outbreak of the 1st wave was citizens returned to abroad, while in the 2nd wave was migrant workers in Samut Sakhon province and the epidemic spread out to entire group of people in the 3rd wave.

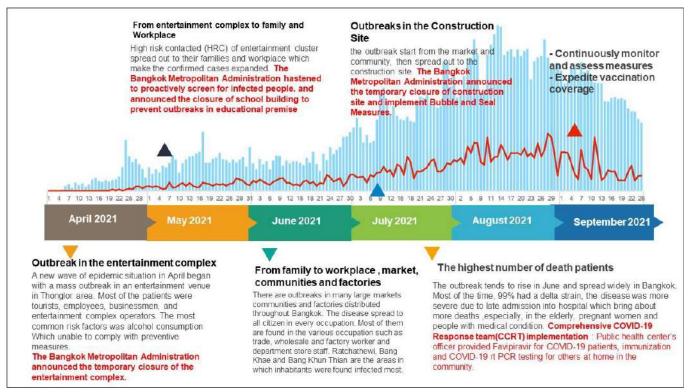




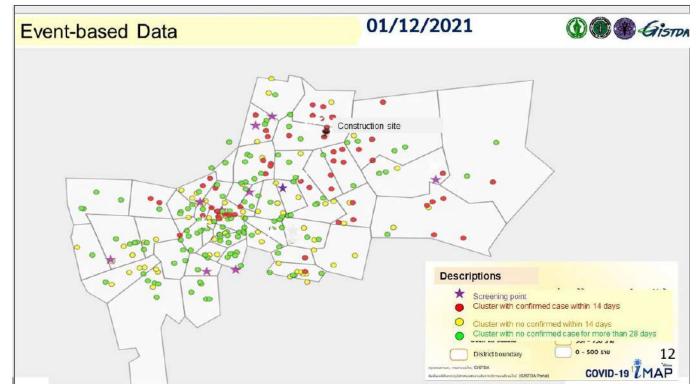
In the 3rd wave of the outbreak, Bangkok was greatly affected, and the death toll increased dramatically. Bangkok has issued a lockdown announcement and has arranged patient care system to comply with the national regulation. We also established guidelines on treating patients at home or " Home Isolation " and establishing a detention center of the community or "Community Isolation" along with speeding up the vaccination process. Bangkok is the first authority which provides a mobile vaccination unit for the people in local communities such as markets where foreign workers can be found.



Center of Covid-19 Situation
Administration in Bangkok chaired by the Prime Minister has been established. It is a joint operation between local authorities and national agencies aimed to control the outbreak to be limited in the close contract tracing and take care of patients who has less severe symptoms until the hospital are available for the patients.



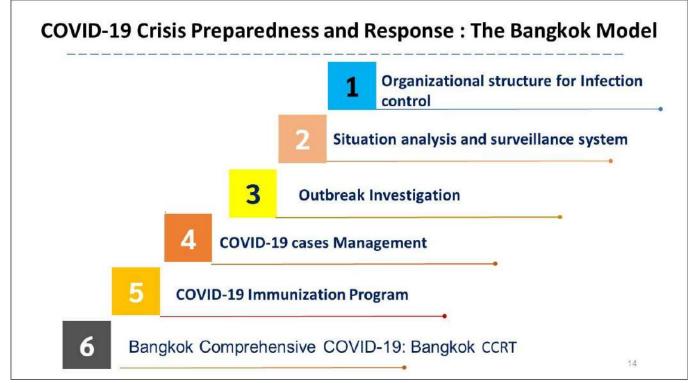
This figure shows the details of the 3rd wave outbreaks.



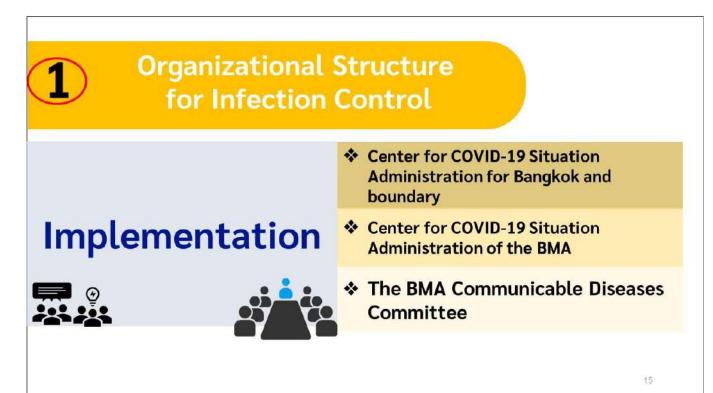
Data was collected to monitor the distribution of clusters infecting Bangkok.

## **COVID-19 Cluster** Measures Active case finding Total 221 clusters 1. Construction site and camp Sentinel surveillance 68 clusters **Bangkok Comprehensive Covid-19** 2. factory or Company 67 clusters Response Team (Bangkok CCRT) 3. communities 35 clusters 4. market 21 clusters Home Isolation 5. elderly nursing Home 13 clusters **Community Isolation** Intensive Immunization Program **BMA** regulation and law enforcement **Universal Prevention for COVID-19** 13

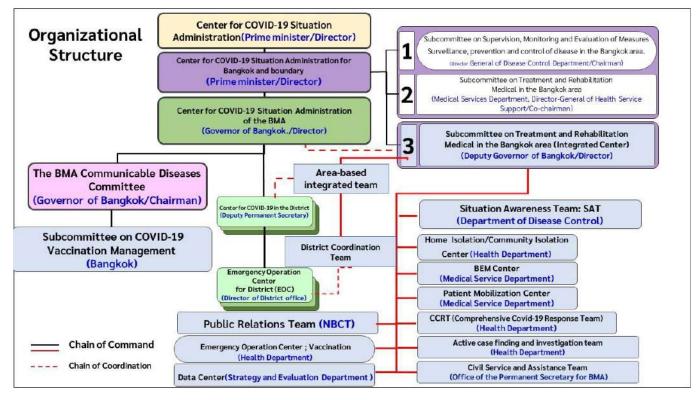
There were outbreaks of large groups, totaling 221 clusters and the Bangkok Metropolitan Administration continued to impose measures to control the disease by finding active cases, sentinel surveillance, provide collaborative referral system for patients, accelerating the completion of 3 doses of vaccination, as well as establishing social and legal measures.



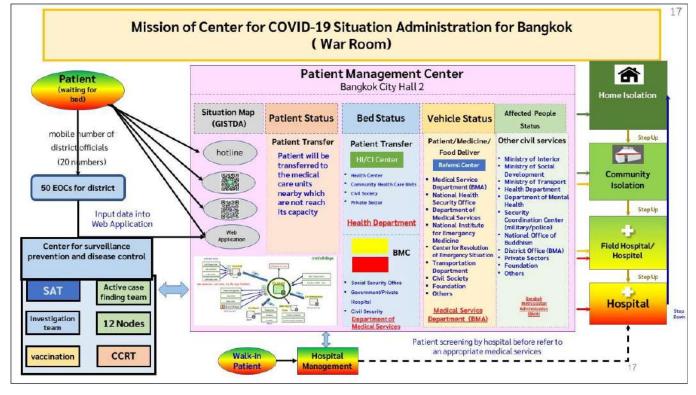
This figure shows 6 components for the preparation to cope with the COVID-19 in Bangkok.



This is the Organizational Structure for Infection Control.



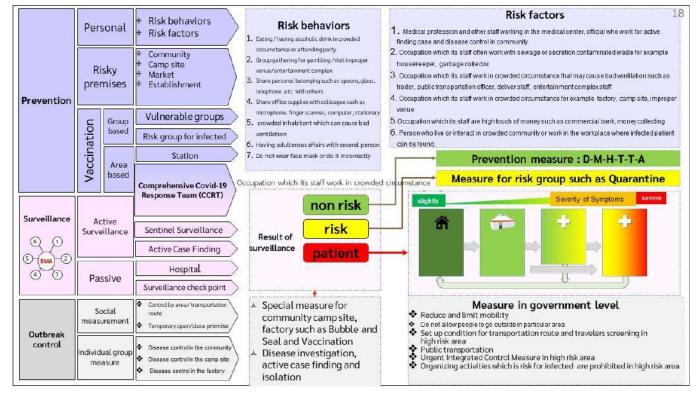
This is an integrated disease control committee chaired by the Prime Minister. There are also collaborative teams in each district working as a sub-unit that operates according to an integrated plan. Medical profession can be informed of the people's illness in the community area so that they can rapidly respond with all aspects.



Active case finding has been continuously conducted in the community of 50 districts. When a patient was found there was a referral system for quick care of the patient to reduce the mortality. The symptoms were divided into 3 levels:

1st, Asymptomatic or mild symptomatic patient without risk of severe disease will recommended to join Home Isolation (HI) or Community Isolation (CI)

2nd, Mild symptomatic patient with risk of severe disease will be recommended to staying in the hospitel or field hospital 3rd, Moderated symptoms will recommend admitting.



Now, prevention, active case finding, and epidemic control are ongoing.



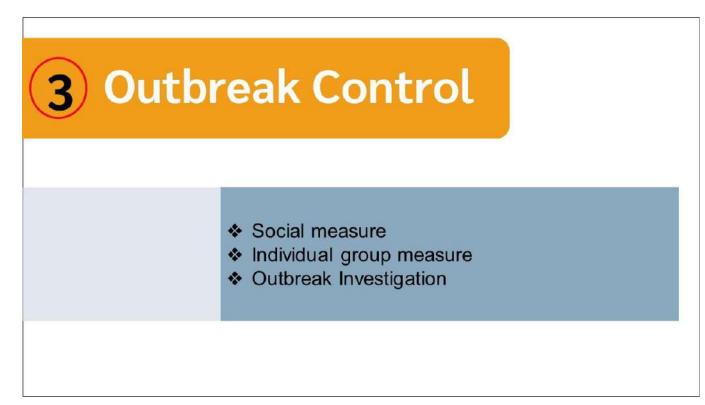
The sentinel surveillance system is continuously implemented in the community .



Bangkok has provided a free COVID-19 rapid test service for all users, including foreigners and countryman.

COV	ID-19 Sentinel surveillance System
	Community and Market
	Workplace
	Factory
	Construction site

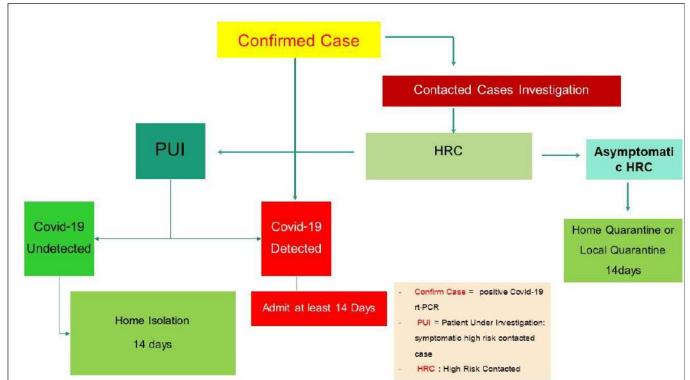
Bangkok continuously provides medical examination services for the community workplaces, factories, markets, and construction camps.



There are an outbreak investigation and control, especially in large clusters.



These are photos of outbreak investigation in local community.



These are actions to be taken when a confirmed case is found. We will firstly search for close contacts tracing people to enable prompt rescue. This is a concept of treatment as Prevention. Then, close contacts tracing people must be in quarantine.



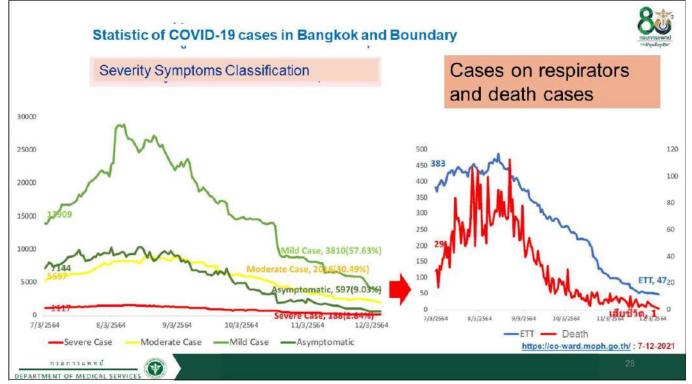
If the patient does not have an effective quarantine facility Bangkok will provide a free quarantine facility for 14 days and provide two PCR examinations with free of charge.



This is the picture of Local quarantine activities for High-risk close contact.



Patient care system was categorized according to the severity of the disease and the risk factors for severe disease.



The figure shows the classification of patients according to the severity of the disease. Patient with severe symptoms and mortality tend to be decreased after early testing, and early apply antiviral: Favipiravir in patient with mild symptoms.