

# Epidemiological study on Coronavirus disease 2019 (COVID-19) cases in the State Quarantine Sites

Thawabhorn Jannok, Rattapong Buriwong, Saowaluk Kamol, Kittipat Worachet,

Kannika Kanchanasuwan, Tunyapa Yukitphuti

## INTRODUCTION

Thailand reported its first confirmed cases of COVID-19 in early January 2020, making it the first place outside of China to detect a case. With large numbers of travelers coming to Thailand, the State Quarantine sites were established for Thais and foreigners with a total quarantine period of 14 days and samples testing for RT-PCR at least 2 times.

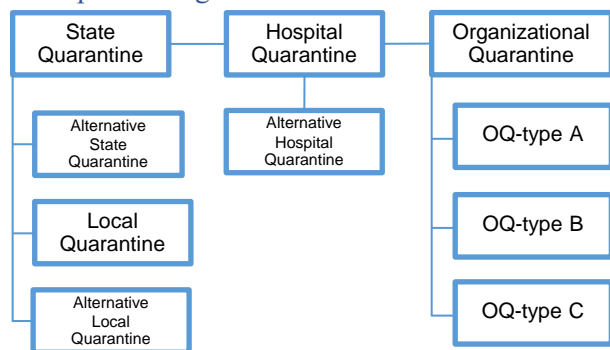


Fig.1 : Types of Thailand State Quarantine in COVID-19 situation

## AIM

The purposes of this study were to identify the characteristics of COVID-19 confirmed cases and to study infection rates at quarantine sites.

## Acknowledgement

DDC SAT COVID-19, DDC Operation Team, 69 Port Health and Quarantine, All State Quarantine site.

## METHODS

The descriptive study based on the data from passenger health questionnaire (T.8 Form) between 1st April 2020 to 30th April 2021 under the announcement of the Emergency Decree on Public Administration in Emergency Situation.

## RESULTS

There were 2,723 COVID-19 confirmed cases (0.84% of all travellers). median of age 32 yrs.(range 2 month – 83 yrs.). Most of the age groups were 30-34 yrs. (15.35%). Thai nationality was 67.68% followed by Indian (5.07%) and American (3.16%).

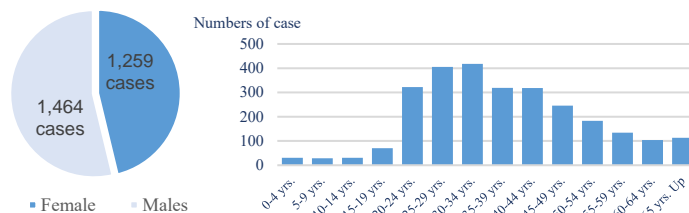


Fig.2 : Numbers of COVID-19 cases in State Quarantine sites classified by Genders.

Fig.3 : Numbers of COVID-19 cases in State Quarantine sites classified by Age groups.

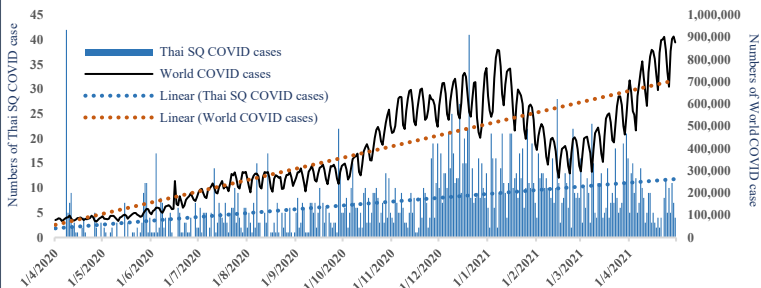


Fig.4 : Epidemic curve of COVID-19 cases in State Quarantine sites Compare with World COVID-19 cases

There were 2,158 (79.73%) asymptomatic cases and 565 (20.27%) symptomatic cases.

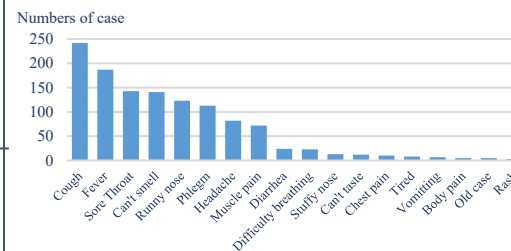


Fig.5 : Symptoms of COVID-19 cases in State Quarantine sites

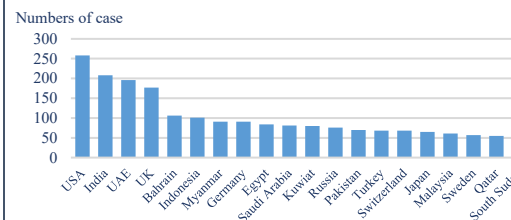


Fig.6 : Top 20 Numbers of COVID-19 cases in State Quarantine sites classified by Origin countries

Quarantine types	No. of Travelers	Infectious Rate	Thai nationality		Foreigner		Total cases	%
			No. of cases	Infectious Rate	No. of cases	Infectious Rate		
SQ	133,620	0.99	1,329	0.99	-	-	1,329	48.81
LQ	44,330	0.51	222	0.50	5	0.01	227	8.34
ASQ	120,785	0.81	246	0.20	730	0.60	976	35.84
ALQ	3,010	2.79	33	1.10	51	1.69	84	3.08
AHQ / HQ	5,480	1.51	11	0.20	72	1.31	83	3.05
OQ	5,273	0.42	2	0.04	20	0.38	22	0.81
Other 2 cases							2	0.07
<b>Totally</b>	<b>312,498</b>		<b>1,843</b>	<b>0.59</b>	<b>878</b>	<b>0.28</b>	<b>2,723</b>	<b>100</b>

Fig.7 : Infectious Rates of COVID-19 cases in State Quarantine sites Classified by Quarantine types.

Earliest detection was found on the day 0 and the latest on the day 32 after entering Thailand. The highest detection was observed between day 3-4 (29.93%), day 5-6 (24.97%) and day 0-2 (21.93%).

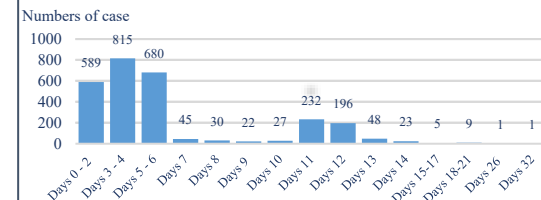


Fig.8 : Numbers of COVID-19 cases in State Quarantine sites classified by Detected date

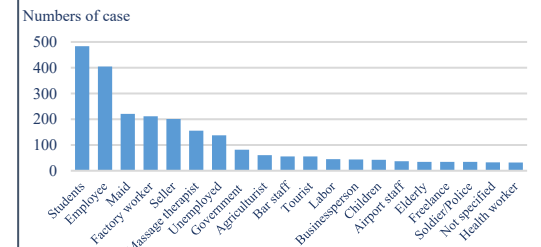


Fig.9 : Top 20 Numbers of COVID-19 cases in State Quarantine sites classified by Occupations.

## Recommendation

Personal protection should be promoted among travellers, especially among 25-34 year olds, those studying and working abroad. The health quarantine officer should verify signs other than measure temperature. The risk score for each country based on infection rates and detection date, together with immunization history, may be used to reduce quarantine days.