



SUMMARY

1st virtual Technical Expert and Advisory (TEA) Panel meeting

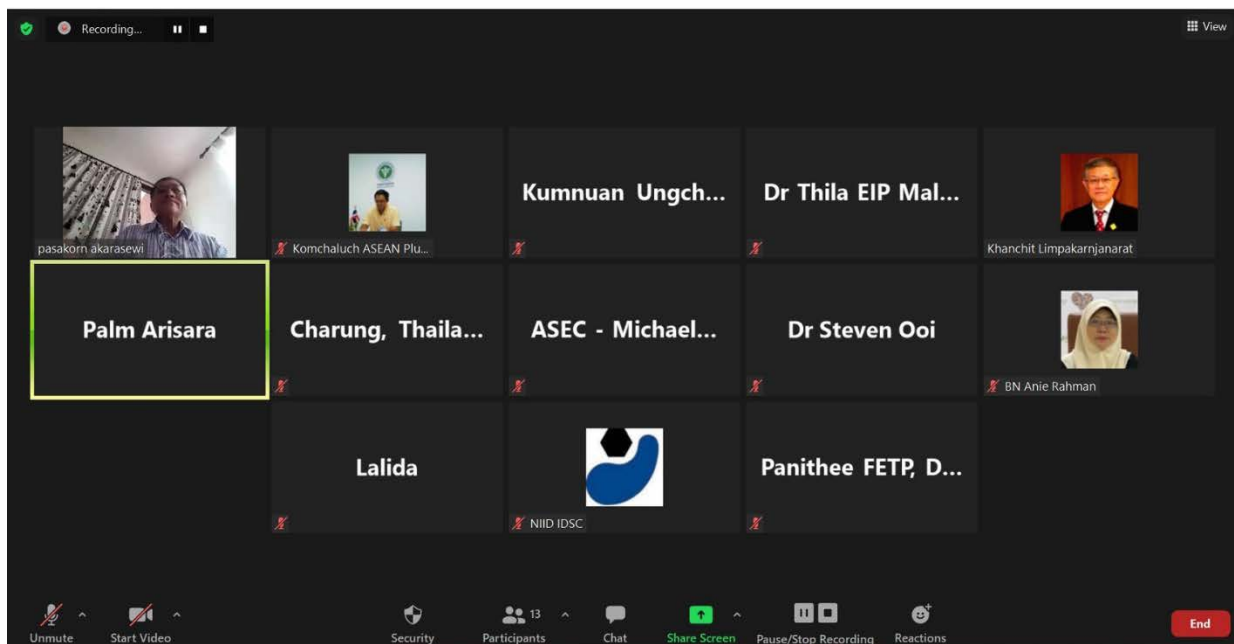
29th July 2021

Referring to the 11th ASEAN + 3 FETN steering committee meeting which was held on 13-14 January 2021 hosted by ASEAN + 3 FETN Coordinating Office virtually. All ASEAN + 3 FETN steering committees agreed to establish Technical Expert and Advisory (TEA) Panel for strengthening the expertise of field epidemiology capacity in the ASEAN + 3 region. The TEA concept note got the concurrence on 4th June 2021 by applying the silent procedure.

Accordingly, the first virtual Technical Expert and Advisory (TEA) Panel meeting was held on 29th September 2020, 01:00-02:00 PM Bangkok time (GMT+7).

The meeting was coordinated by ASEAN Secretariat, ASEAN+3 FETN Coordinating Office (CO), technical support was provided by ASEAN Plus FETN Foundation, Ministry of Public Health, Thailand. The web conference software, “Zoom”, was used. The meeting started at 01:05 PM.

13 TEA members from 5 countries including Brunei, Japan, Malaysia, Singapore, and Thailand.





Agenda Item 1: Opening TEA meeting, Overview of the Meeting and Adoption of Agenda

Dr Rattanaxy Phetsouvanh, Chair of ASEAN + 3 FETN, allowed Dr Pasakorn Akarasewi, the head of TEA Secretariat to be acting chair because of an urgent meeting with the minister. The acting chair officially started the meeting and welcomed all participants. The agenda was adopted by the meeting. The secretariat team, Dr Komchaluch Taweeseenepitch, did a roll call and asked TEA members to introduce their name, position, and country.

Agenda Item 2: First issue discussion “How Field Epidemiology (or country) to monitor the epidemic efficiently, and what is/are the most practical ways under the current circumstances? (Up to next 12 months)

The secretariat team, Dr Arisara Choochern, reported the resulted from a mini-survey gathering the feedback from TEA members (43% response rate). The results suggested that using integrated surveillance which having at least 3 types of surveillance systems may be practical to monitor the COVID-19 pandemic recently and soon and must be adjusted suitably.

Acting Chair facilitated and led the open floor discussion on the surveillance types. TEA members shared their points of view actively. In the nutshell, regular Notifiable diseases surveillance (passive surveillance) may be useful to provide the baseline of epidemic burden at the early phase of the COVID-19 pandemic but may be less useful for wide-spread at a community level and laboratory capacity. Sentinel surveillance aiming to reduce the size of the disease burden is good for small clusters or scattering outbreaks by implementing by request at the local government level such as a hospital, school, factory. The effectiveness of cluster investigation may be based on the different sizes of the COVID-19 outbreak. There was small or no discussion in the laboratory surveillance, serology surveillance, special settings surveillance, modelling for projection, and mortality surveillance.

Some TEA member shared the common concerns and ask for comments and suggestion as follow; 1) the variants of concerns (VOCs) especially for alpha and delta variants and 2) The increasing number of COVID-19 cases after lockdown implementation.

Agenda Item 3: Second issue “In this situation, what is/are your recommendation, point-of-view on benefit, practicality, and how to apply contact tracing, including quarantine and isolation?”

The secretariat team, Dr Arisara Choochern, reported the resulted from a mini-survey gathering the feedback from TEA members (36% response rate). The results suggested that integrated



information technology into contact tracing procedures, contact tracing applications, could reduce the workload of contact tracing during the COVID-19 pandemic. Prospective contract tracing might be suitable in the area where no therapeutic medicines, insufficient vaccines supply, and limited/small outbreak. Nevertheless, it may be difficult to apply with asymptomatic cases post-vaccination. Public acceptance of technology is essential.

Acting Chair facilitated and led the open floor discussion on the practical contact tracing issues. The TEA members actively expressed their points of view. Practical contact tracing such as the fencing approach would be good to be implemented at the household level but we must be aware of the variant of concerns, especially for the Delta variant of COVID-19. Manpower and interpretation of contact tracing data may be the crucial determinant to provide productive and practical contact tracing during the surge of COVID-19 pandemic and community transmission and took into consideration carefully. Applying Python program for contact tracing at a local level was shared. Most of the participants agreed that it might be useful to apply because it was a friendly program and easy to understand shortly. Some TEA members suggested if we could interpret the result of network analysis created by the Python program from person to farm/school/factor, it was really beneficial to implement the control measure.

Before the end of the meeting, the Acting Chair summarized and proposed the three potential issues for the next virtual TEA meeting as follows;

1) Vaccine coverage, 2) Vaccine efficacy, and 3) Vaccine accessibility.

The presentation of the first TEA Meeting in Annex

Closing

The Acting chair thanked TEA members and all participants for their fully active participation and fruitful discussion throughout the meeting period. The Acting chair also encouraged the TEA member to nominate more experts or suggested the potential TEA member to the TEA Secretariat. The second virtual Technical Expert and Advisory (TEA) Panel meeting will be held on by the end of August 2021. The TEA secretariat is responsible for the preparation and invitation process. The video conference ended at 02:04 PM.

The meeting was held in the traditional spirit of ASEAN cooperation and genuineness.



TEA

- Technical Expert
- and Advisory panel

CHAIRMAN



Dr. Rattanaxay Phetsouvanh
Chair of ASEAN Plus 3 FETN
Steering Committee 2021

SECRETARIAT



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MEMBERSHIP 2021



Dr. Nguyen Tran Hien



Dr. Yingxin Pei



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Dr. Khanchit Limpakarnjanarat



Dr. Thilaka Chinnayah



Dr. Nyoman Kandun



Dr. Anie Haryani Abd Rahman



Dr. Alethea De Guzman
Dr. Agnes B. Segarra

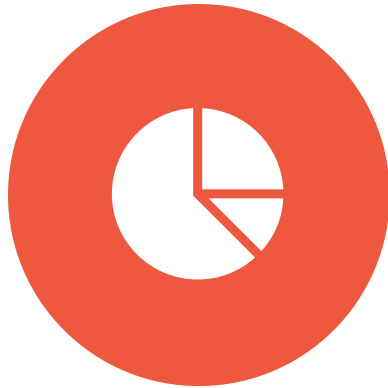


Dr. Anita Samuel
Dr. Hajime Kamiya

The first virtual TEA meeting

29 JULY 2021

Agenda



1ST ISSUE
MONITOR THE EPIDEMIC



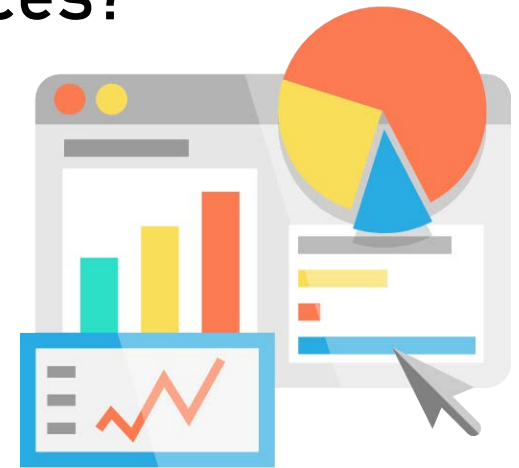
2ND ISSUE
CONTACT TRACING



01.00-02.00 PM
(ICT)

#1: Monitor the epidemic

How Field Epidemiology (or country) to monitor the epidemic efficiently, and what is/are the most practical ways under the current circumstances?
(up to next 12 months)



Surveillance types	Pros	Cons	Implementation?	Currently Work “well” or “less well”	Recommendation
Use regular Notifiable diseases surveillance					
Sentinel surveillance					
Serology surveillance					
Special settings surveillance (factory, school, prison)					
Modelling for projection					
Cluster investigations					
Mortality surveillance					
Laboratory surveillance					

The survey results suggested...

(33% response rate)

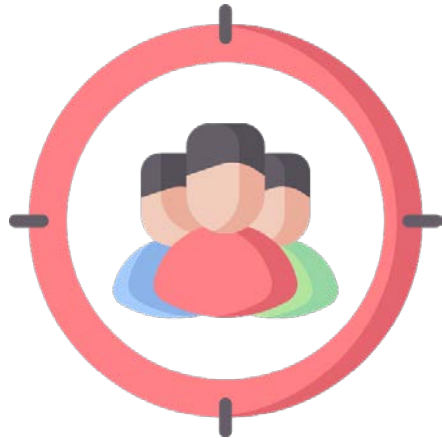
Issues	Country A	Country B	Country C	Country D
How to practically monitor COVID epidemic using field surveillance methodology?	Real-time dashboard monitoring with statistics in parallel with laboratory. Using some special setting and cluster surveillance	Regular notifiable diseases surveillance with fit COVID-19 case definition and efficient laboratory capacity, aware of workload if not, syndromic surveillance is recommended. Serology and cluster investigation also work well.	Using only single method may not be sufficient to monitor COVID-19 situation. Sentinel and special setting surveillance (Health care facility and protective factor & risk behavior monitoring). Modeling is good to guide policy decision.	Top 3 in next 6-12 months 1. Monitor Covid-19 incidence 2. Phylogenetics 3. Hospital and ICU admissions. Focus on Variants of Concern (VOCs), Delta. mixed/integrated surveillance is needed.
What is the practical management of contact tracing?	Integrated information technology into contact tracing procedure, contact tracing application, by collaboration with private sector, start up.	Because of workload, focus on prospective contact tracing is better. Especially in the area where is no therapeutic medicines, or insufficient vaccines supply.	It is good for limited outbreak. If it is wide-spreading epidemic, it can pose a lot of burden and panic. Contact tracing may be done in cluster setting to guide isolation next 6-12 months	Difficult with asymptomatic cases post-vaccination. Public acceptance of technology is really essential.

The survey results suggested...

Surveillance types	Pros	Cons
Use regular Notifiable diseases surveillance	<ul style="list-style-type: none"> • Most consistent form • Easy to follow-up • No need for training • Low incidence cases • Shows disease trend 	<ul style="list-style-type: none"> • Delay due to the lab capacity • Heavy workload of public health officers if there are large number of cases reported • Not show disease severity
Sentinel surveillance	<ul style="list-style-type: none"> • Easy to implement and can monitor the trend • Know circulation of virus • Early warning in high risk groups 	<ul style="list-style-type: none"> • True disease burden is unknown
Serology surveillance	<ul style="list-style-type: none"> • Capture asymptomatic cases and understand the prevalence • Know the sero prevalence of community • Potentially useful for epidemic prediction 	<ul style="list-style-type: none"> • Limited evidence • Need to test large amount of people • Costly

Surveillance types	Pros	Cons
Special settings surveillance (factory, school, prison)	<ul style="list-style-type: none"> • Can pick up any active infections in high risk settings - healthcare/ prisons • Good in outbreak of clusters • Monitor at-risk populations 	<ul style="list-style-type: none"> • Logistical issues • Requires intensive planning and resources • May be ad hoc, and results cannot be generalized
Modelling for projection	<ul style="list-style-type: none"> • Support policy decision and preparedness • Predict future disease burden 	<ul style="list-style-type: none"> • Difficult to project due to constantly evolving evidence • Need a valid model and good epidemiology data
Cluster investigations	<ul style="list-style-type: none"> • Provide in-depth understanding of the transmission • Necessary for contact tracing 	<ul style="list-style-type: none"> • Resource intensive
Mortality surveillance	<ul style="list-style-type: none"> • Measure disease severity 	<ul style="list-style-type: none"> • Need to follow-up the cases • Possible underreporting • Must exclude other causes in elderly
Laboratory surveillance	<ul style="list-style-type: none"> • Understand the disease burden, the trend of disease over time, and prevalence information • Can be applied for environmental sample for early detection 	<ul style="list-style-type: none"> • Can't be used independently • Need good epidemiology data and reliable denominator data

#2: Contact tracing



In this situation, what is/are your recommendation, point-of-view on benefit, practicality and how to apply contact tracing, including quarantine and isolation?



การสอบสวนโรคติดเชื้อไวรัสโคโรนา 2019 ที่เชื่อมโยงสถานบันเทิงแห่งหนึ่ง จ.นครปฐม



A

(Index case) ชายไทย 27 ปี อาชีพพนักงาน
22/3/64 มีอาการคัดจมูก ปวดเมื่อยตามตัว
วันที่ 16/3/64 ไปร้องเพลงที่สถานบันเทิง
จ.นครปฐม (ร่วมนาย B และ C)
26/3/64 ผล **Detected**



B

ชายไทย 23 ปี (น้องชายของ A) อาชีพพนักงาน
ไม่มีอาการ
16/3/64 ไปร้องเพลงที่ สถานบันเทิง
จ.นครปฐม (ร่วมนาย A และ C)
27/3/64 ผล **Detected**



C

ชายไทย 23 ปี อาชีพพนักงาน
ไม่มีอาการ
16/3/64 ไปเล่นดนตรีที่สถานบันเทิง จ.นครปฐม
(ร่วมนาย A และ B)
21/4/64 ไปซ้อมดนตรีที่บ้านนาย A และ B
23/3/64 ไปเล่นดนตรีที่ สถานบันเทิง จ.นครปฐม
29/3/64 ทราบว่านาย A และ B เป็นโควิด-19
จึงไปตรวจที่รพ.เอกชนแห่งหนึ่ง ผล **Detected**



หญิงไทย 56 ปี (แม่นาย A และ B)
ไม่มีอาการ
27/3/64 ผล **Detected**



ชายไทย 19 ปี อาชีพ นักศึกษา
ไม่มีอาการ
1/04/64 ผล **Detected**
ประวัติเสี่ยง 23/3/64 ไปเที่ยวที่ สถานบันเทิง
จ.นครปฐม กับเพื่อน 11 คน (มีเพื่อน 1 คน
ผล **Detected** อยู่ระหว่างสอบสวนโรค)



D

ชายไทย 23 ปี อาชีพพนักงานบริษัท และหลังเลิกงาน
จะทำงานคุมเครื่องเสียงที่ สถานบันเทิง จ.นครปฐม
28/3/64 มีอาการคัดจมูก ปวดเมื่อยตามตัว
29/3/64 ได้รับแจ้งว่าผู้ที่มีประวัติไป สถานบันเทิง
จ.นครปฐม แห่งนี้ ให้ไปตรวจหาเชื้อโรคโควิด-19
30/3/64 ไปตรวจที่รพ.พุทธมณฑล ผล **Detected**
ประวัติเสี่ยง วันที่ 16 -29/3/64 ทำงานคุมเครื่อง
เสียงที่ สถานบันเทิง จ.นครปฐม
*วันที่ 23/4/64 พุดคุยใกล้ชิดกับนาย C

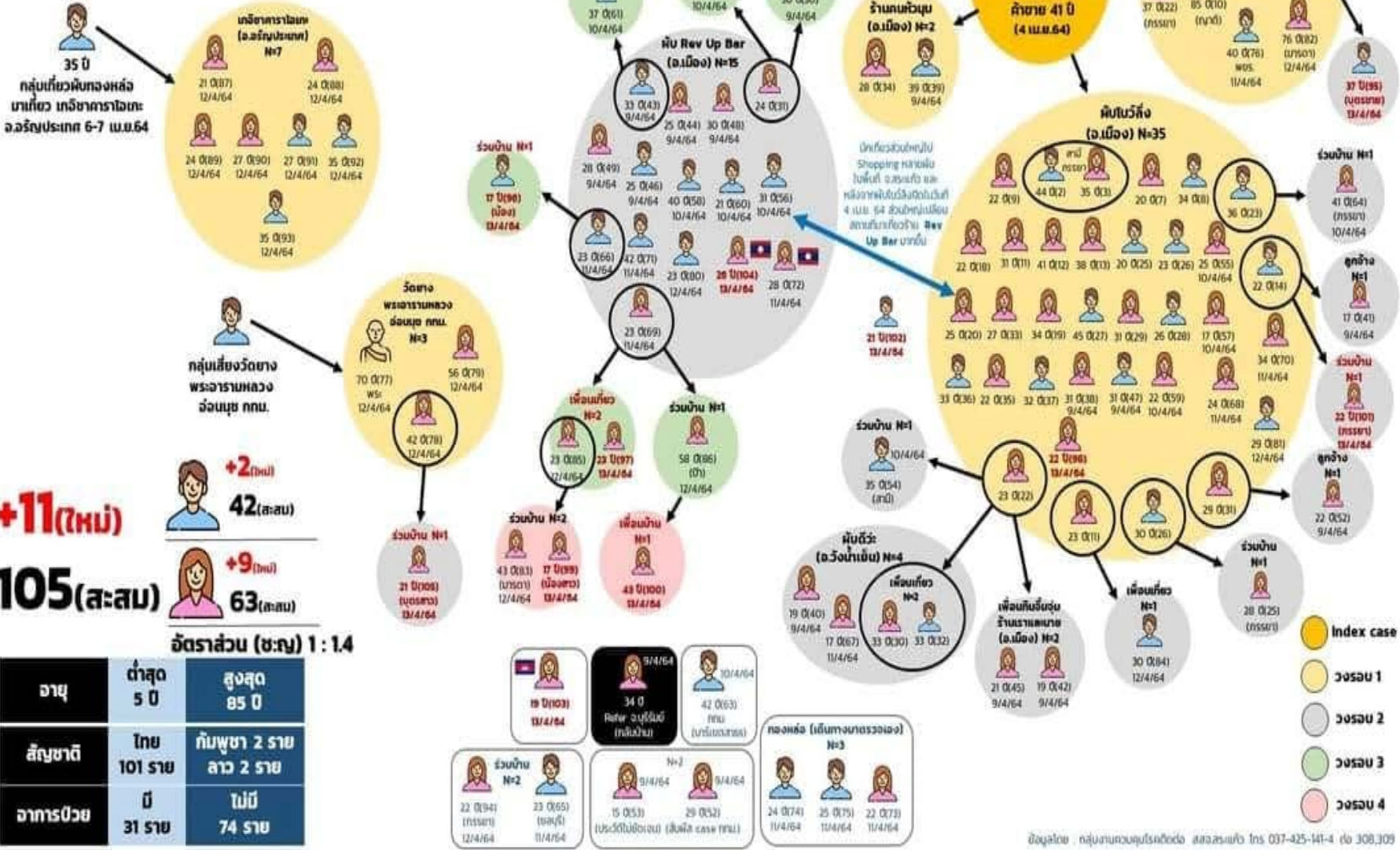


ผู้ติดเชื้อโควิด-19 เชื่อมโยงกับสถานบันเทิงหลายแห่ง ย่านทองหล่อ กทม



สรุปผังความเชื่อมโยง ข้อมูล ณ วันที่ 13 เม.ย.2564

กรณีพบผู้ติดเชื้อ COVID-19 จ.สระแก้ว Cluster เชื่อมโยงสถานบันเทิงพื้นที่ กทม.



+11 (ใหม่)
42 (สะสม)

+9 (ใหม่)
63 (สะสม)

105 (สะสม)

อัตราส่วน (ชาย) 1 : 1.4

อายุ	ต่ำสุด 5 ปี	สูงสุด 85 ปี
สัญชาติ	ไทย 101 ราย	กัมพูชา 2 ราย ลาว 2 ราย
อาการป่วย	มี 31 ราย	ไม่มี 74 ราย



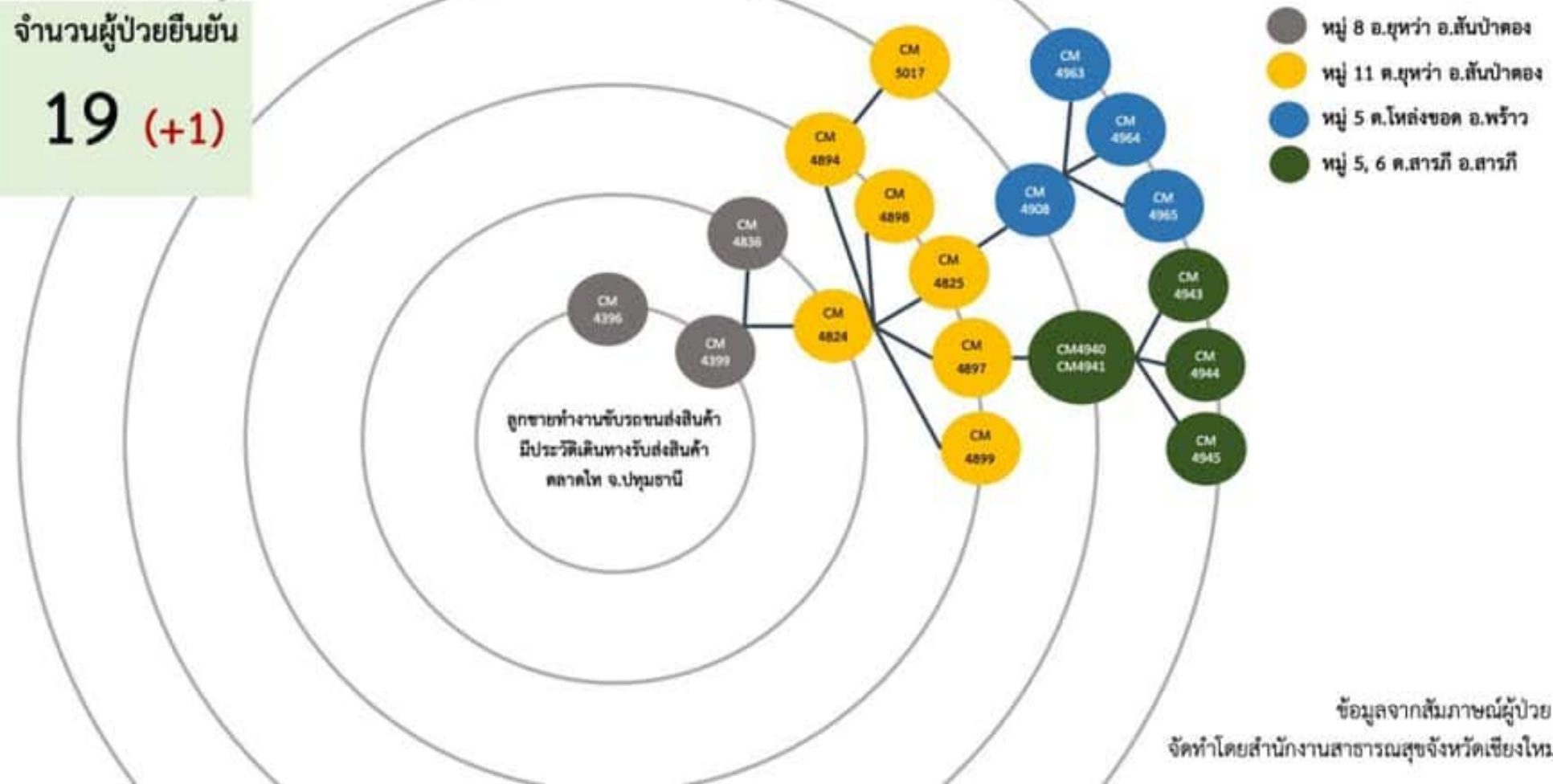


การระบาดของโควิด 19 ใน อ.สันป่าตอง และครอบครัวต่างอำเภอ จ.เชียงใหม่

ข้อมูล ณ วันที่ 24 ก.ค. 2564

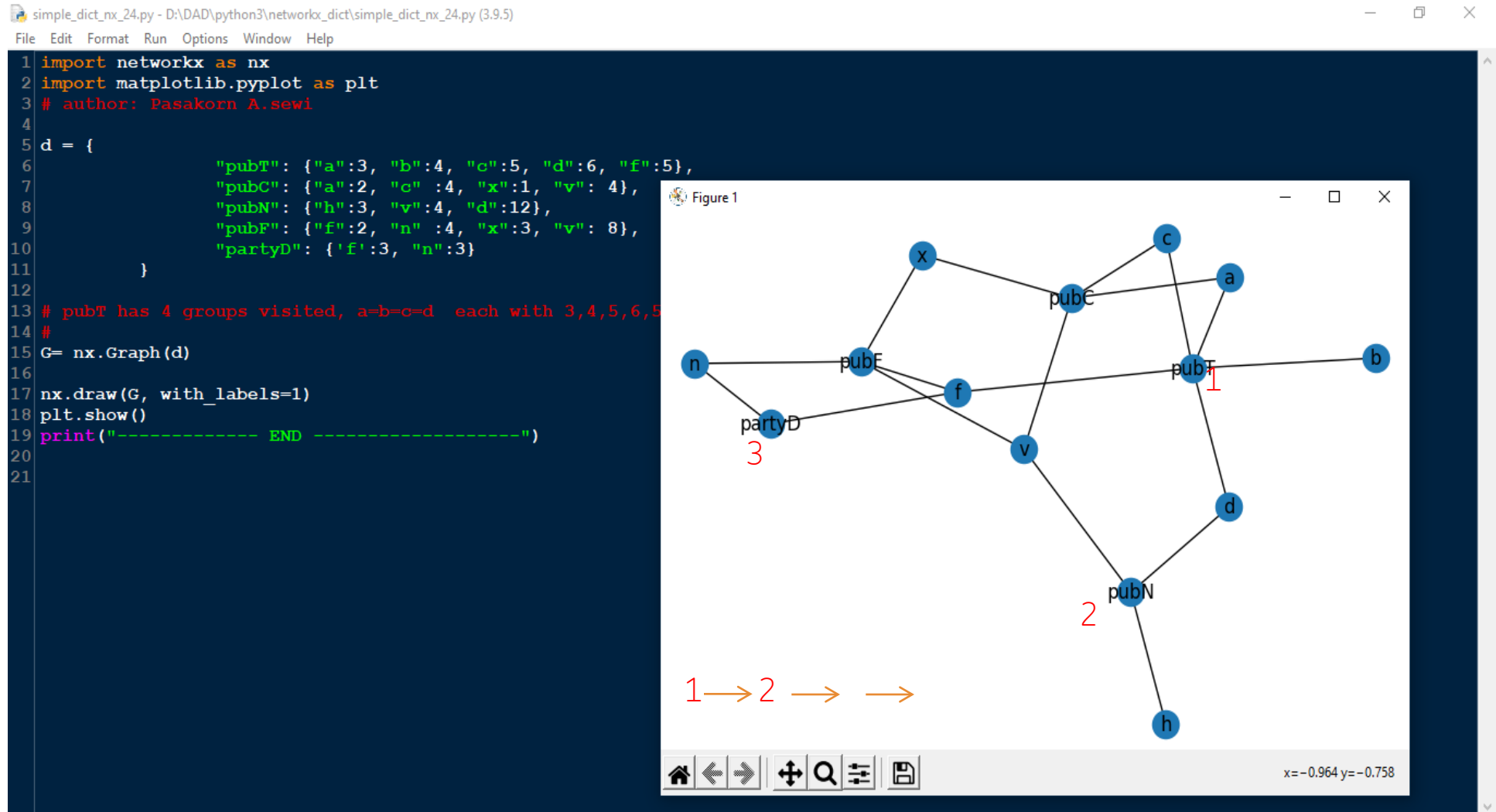
จำนวนผู้ป่วยยืนยัน

19 (+1)



Party and Pub – goers : Contacts networking

Python scripts – network visualization



Contacts networking

Python scripts – network visualization

nx_21.py - D:\DAD\python3\networkx_dict\nx_21.py (3.9.5)

```
File Edit Format Run Options Window Help
1 import networkx as nx
2 import matplotlib.pyplot as plt
3
4 pairs = [ ('sp', 'sb'), ('sp', 'fah'), ('sp', 'ak'), ('sp', 'kt'), ('je', 'jn'),
5 ('je', 'sl'), ('je', 'br'), ('je', 'sr'), ('av', 'jk'), ('av', 'jy'), ('ap', 'sk'),
6 ('ap', 'jh'), ('ap', 'dp'), ('dp', 'kt'), ('dp', 'br'), ('dp', 'jy'), ('dp', 'od'),
7 ('dp', 'pm'), ('dp', 's'), ('kt', 'ohm'), ('kt', 'jy'), ('kt', 'cd')]
8
9
10 G= nx.Graph()
11 the_nodes = ['sp','je', 'av','dp', 'kt']
12 the_edges = pairs
13
14 G.add_nodes_from(the_nodes)
15 G.add_edges_from(the_edges)
16
17 nx.draw(G, with_labels=1)
18 plt.show()
19
```

Figure 1

The network visualization shows a central node 'dp' connected to several other nodes: 'je', 'br', 's', 'kt', 'pm', 'ap', and 'sk'. Node 'je' is further connected to 'sl', 'jn', and 'sr'. Node 'av' is connected to 'jk' and 'jy'. Node 'jy' is connected to 'dp' and 'kt'. Node 'kt' is connected to 'ohm', 'cd', and 'jy'. Node 'sp' is connected to 'ak', 'fah', and 'sb'. Node 'ap' is connected to 'jh' and 'sk'. A red arrow points to node 'jy'.

coworks.txt - D:\DAD\python3\networkx_dict\coworks.txt ...

```
File Edit Format Run Options Window Help
1 sp sb fah ak kt
2 je jn sl br sr dp
3 av jk jy
4 ap sk jh dp
5 dp kt br jy cd pm s
6 kt ohm jy cd
7
```

Ln: 5 Col: 8

Ln: 2 Col: 0

Windows taskbar: Type here to search, Desktop, 79°F, 9:15 PM 7/27/2021

If 'jy' is PCR-COVID-Positive : who must be tested and put on isolation?

Summary



The potential issues for next TEA meeting

- 1) Vaccine coverage
- 2) Vaccine efficacy
- 3) Vaccine accessibility

