

Update on the situation of COVID-19

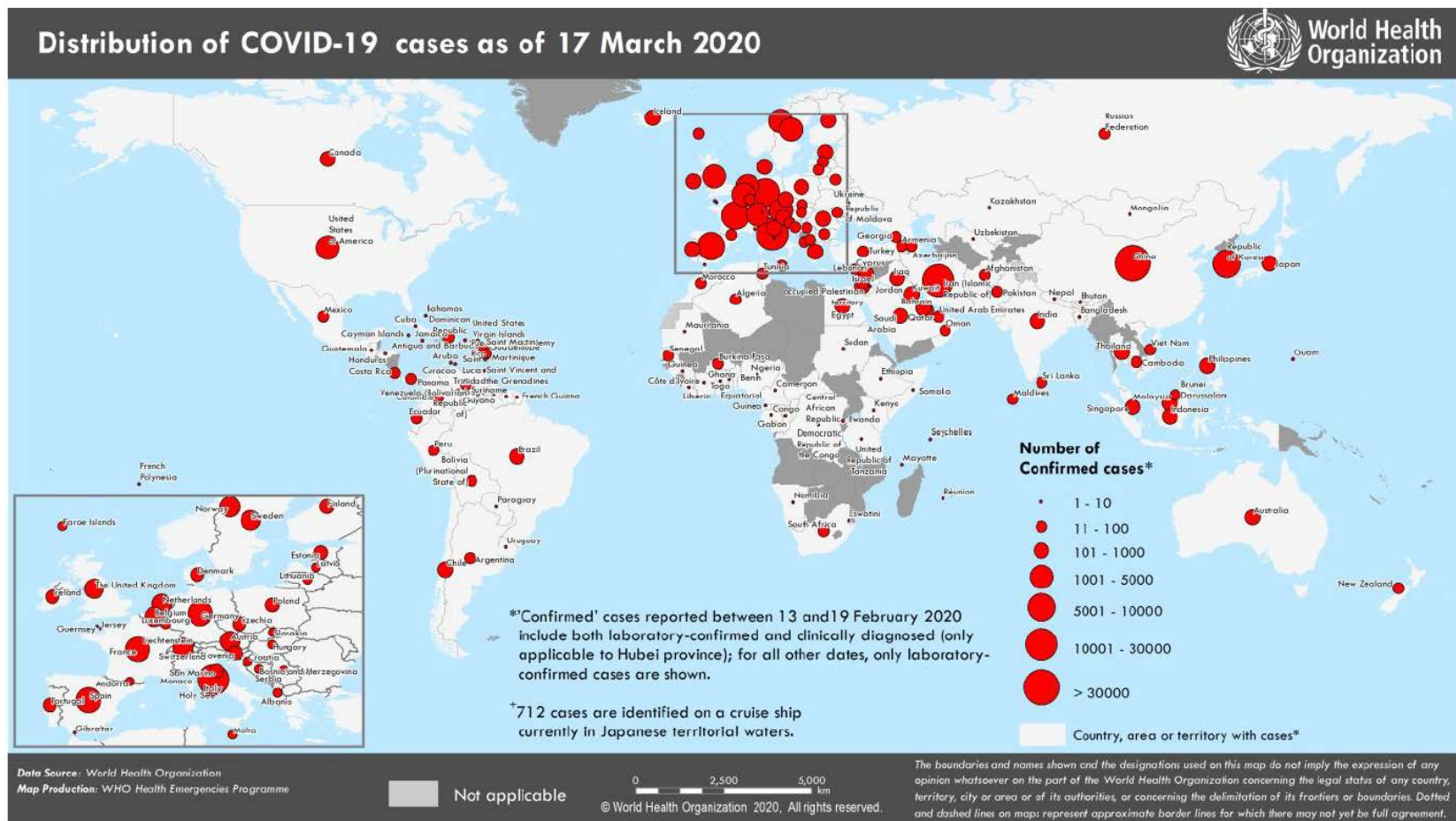
Global situation

Shifting of epicenter from Mainland to Europe

- Significant decrease in cases in Mainland China since late Feb, including Hubei
- Spread to oversea countries in early to mid-Feb, initially imported/import-related cases, local transmission since late Feb
- Huge increase in cases in some countries with large-scale community outbreaks since early March (e.g. Korea, Italy, Iran)
- Rapid deterioration since early March with increasing number of affected countries and sharp increases in case number in affected countries
- WHO announced on 11 March COVID-19 can be described as an pandemic

Global situation

- As 9am on 18 March, a total of 160 countries/areas outside Mainland China reported 108546 COVID-19 cases.



Affected countries (as of 17 March)

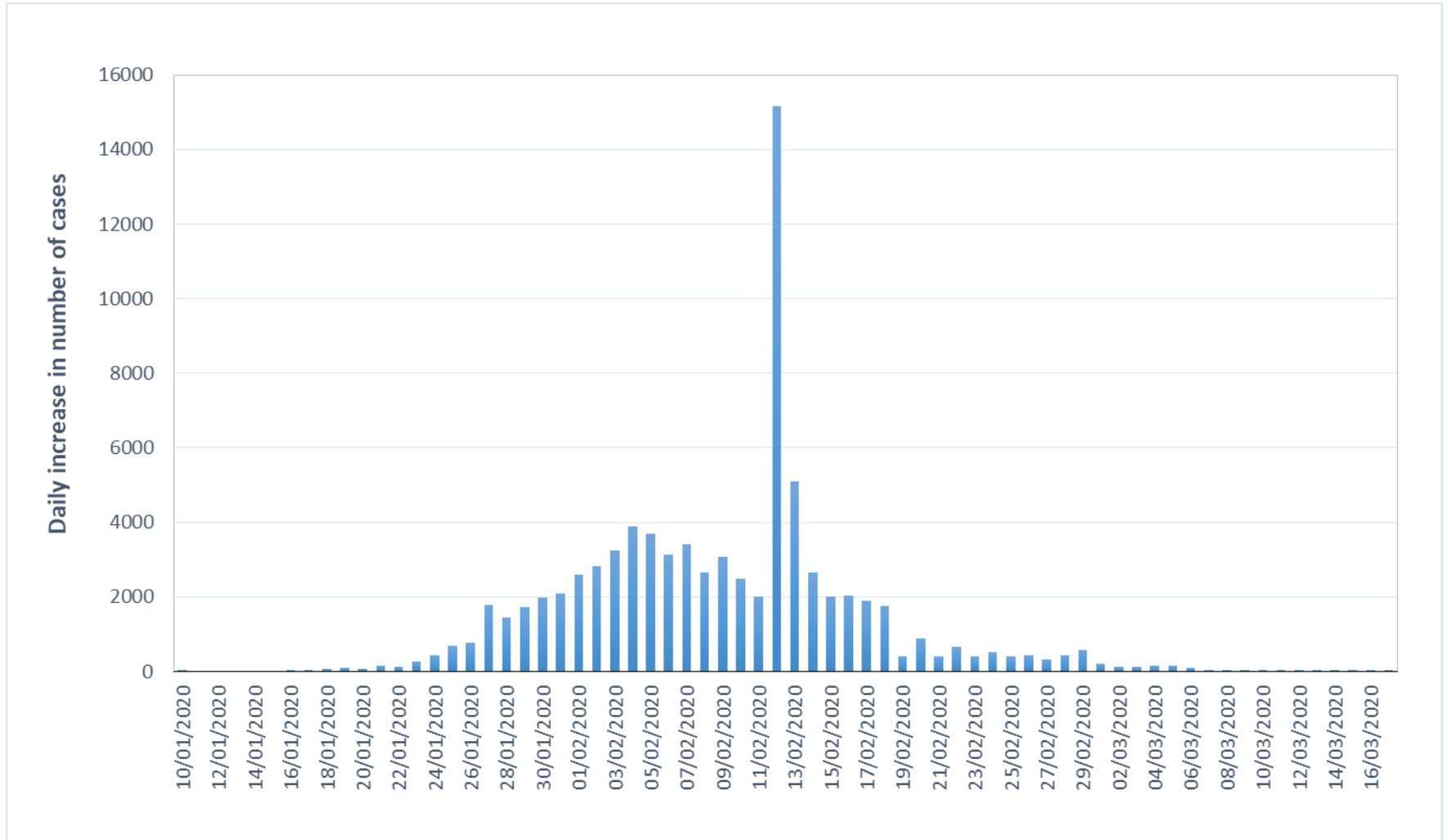
WHO region	Number of countries/areas with reported cases	Number of countries/areas with local transmission
Western Pacific Region	14	12
European Region	55	37
South-East Asia Region	8	6
Eastern Mediterranean Region	18	12
Region of the Americas	37	15
African Region	27	6
Total	159	88

Countries/areas outside Mainland China with incidence >100 cases per million population

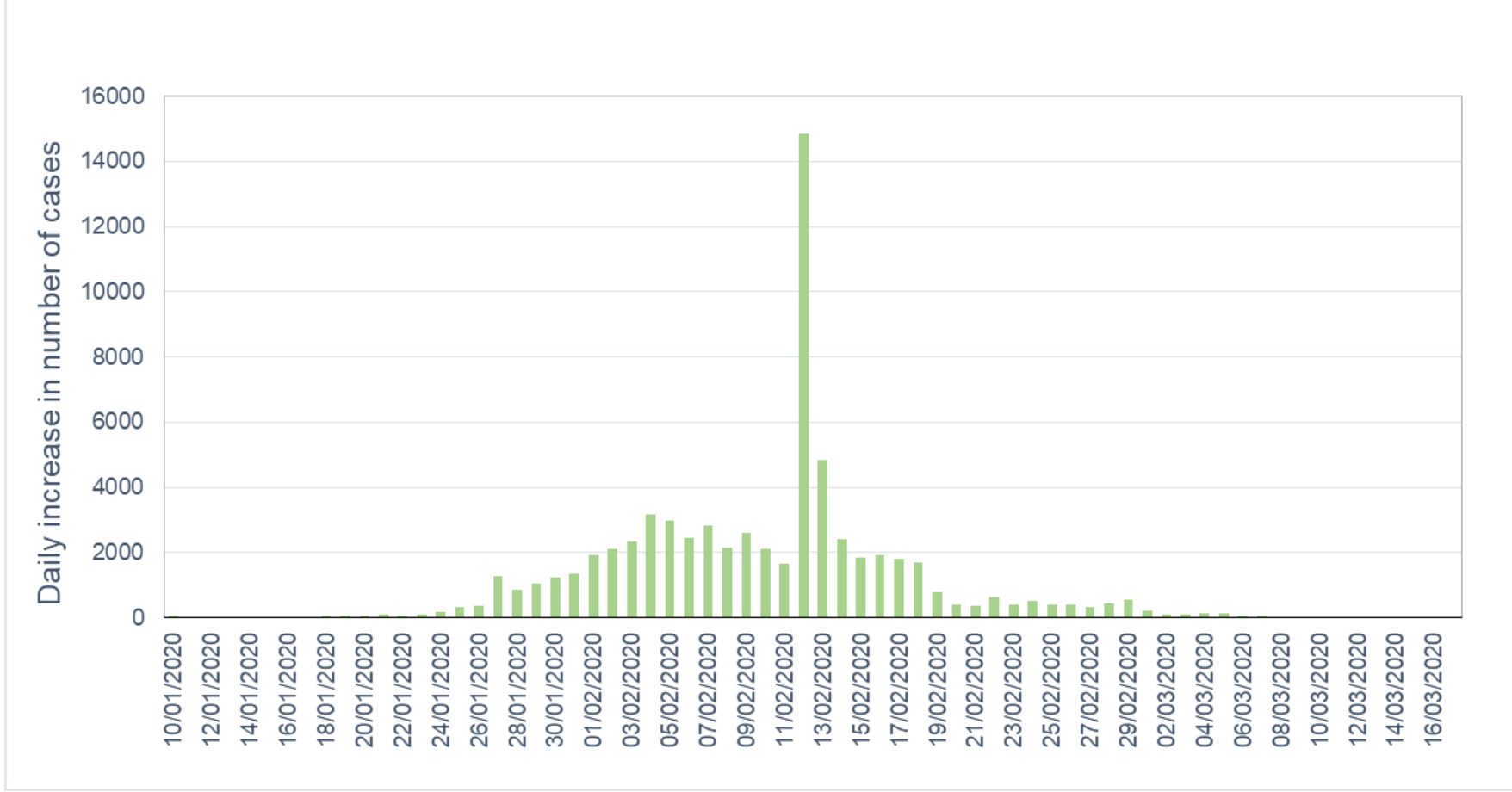
(as of 16-17 March with variable cut-off time)

Countries	Latest figures	Population (million)	Incidence (cases per million population)
Belgium	1243	2.23	558.47
Italy	31506	60.46	521.09
Switzerland	2262	8.65	261.36
Spain	11178	46.75	239.08
Norway	1169	5.42	215.63
Iran	16169	83.99	192.50
Bahrain	242	1.40	172.49
Estonia	225	1.33	169.61
Denmark	977	5.79	168.68
Korea	8413	51.27	164.09
Qatar	442	2.88	153.42
Slovenia	275	2.08	132.28
Luxembourg	81	0.63	129.40
France	7730	65.27	118.42
Austria	1332	11.33	117.60
Sweden	1167	10.10	115.55

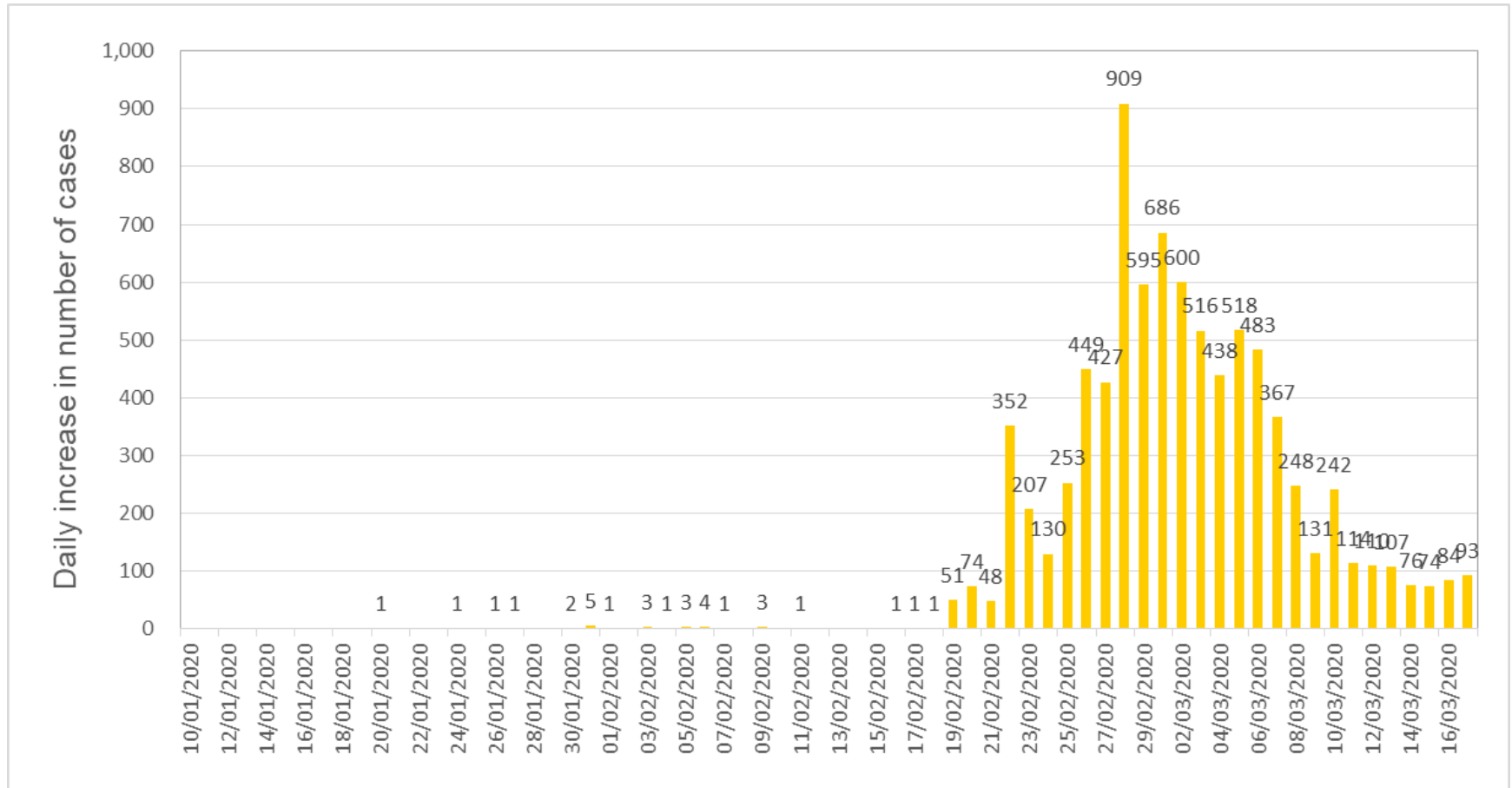
Mainland China



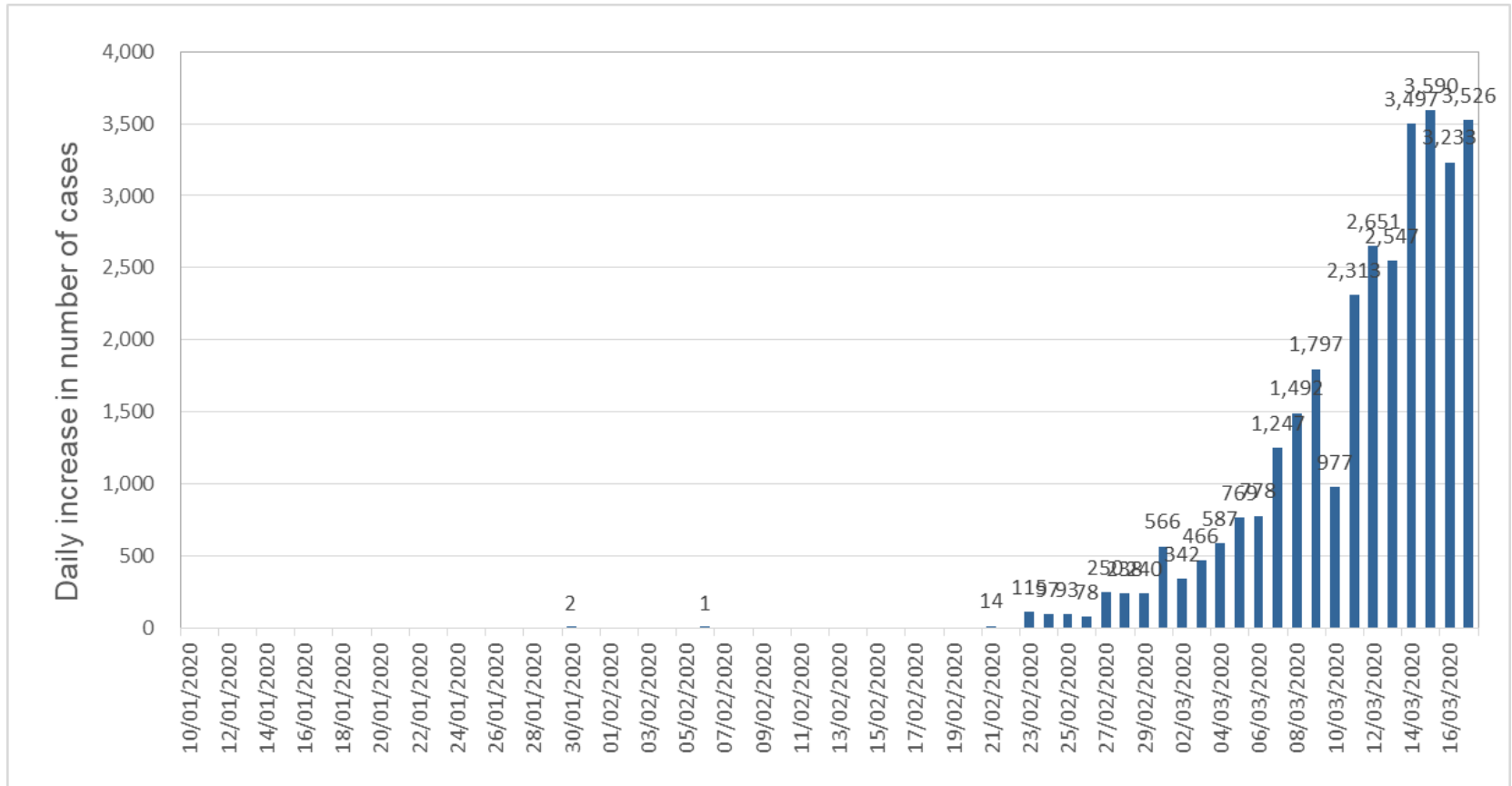
Hubei



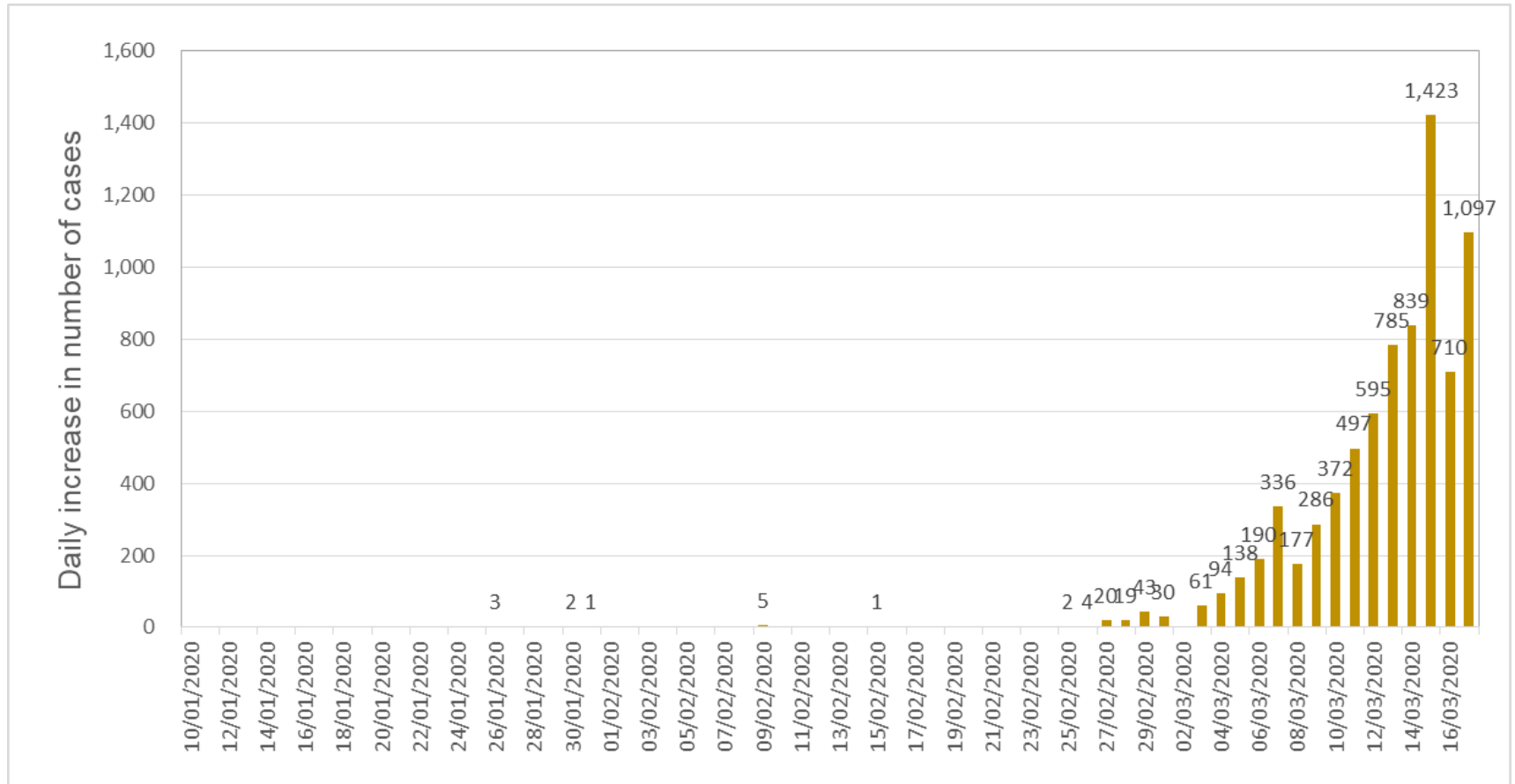
Korea



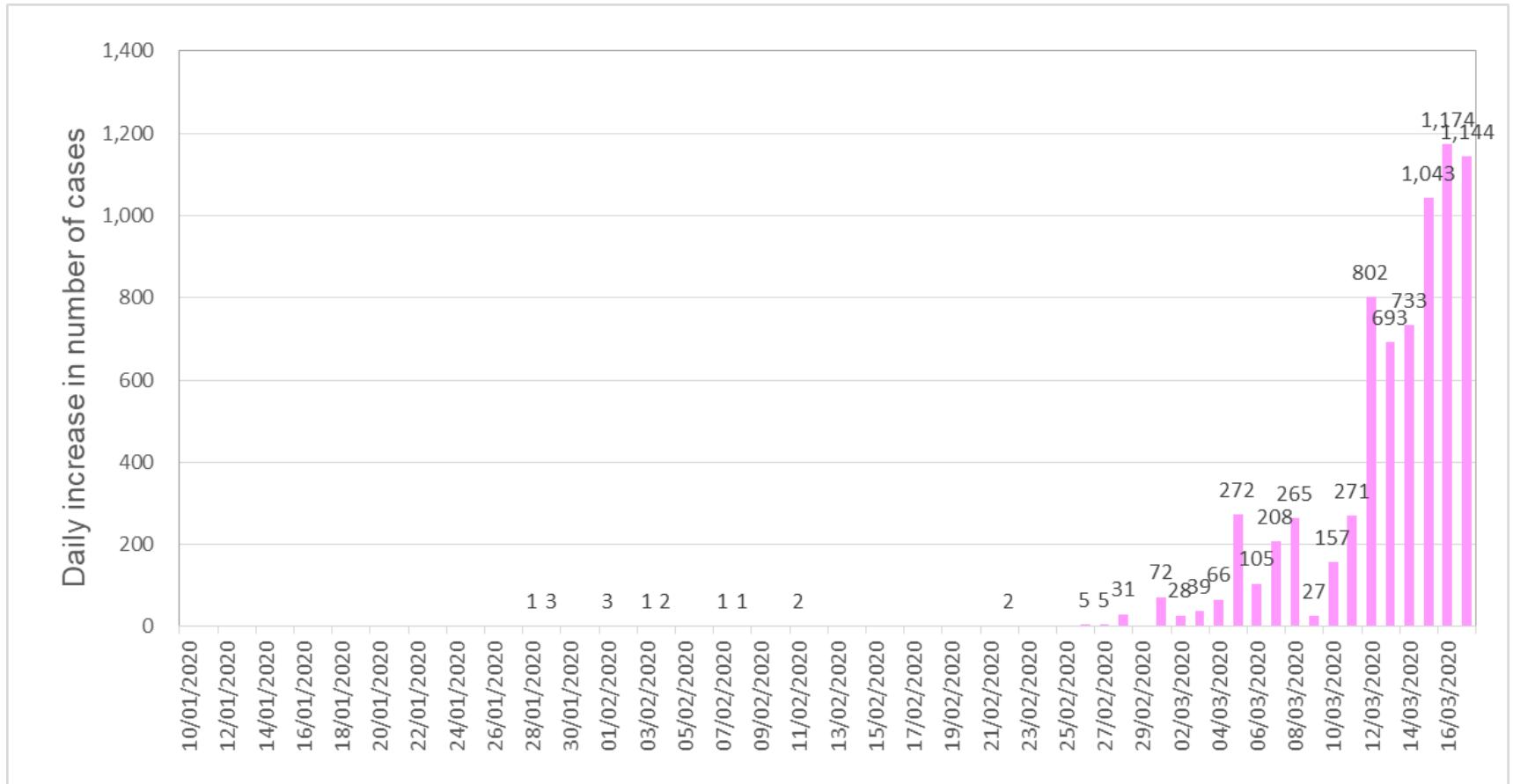
Italy



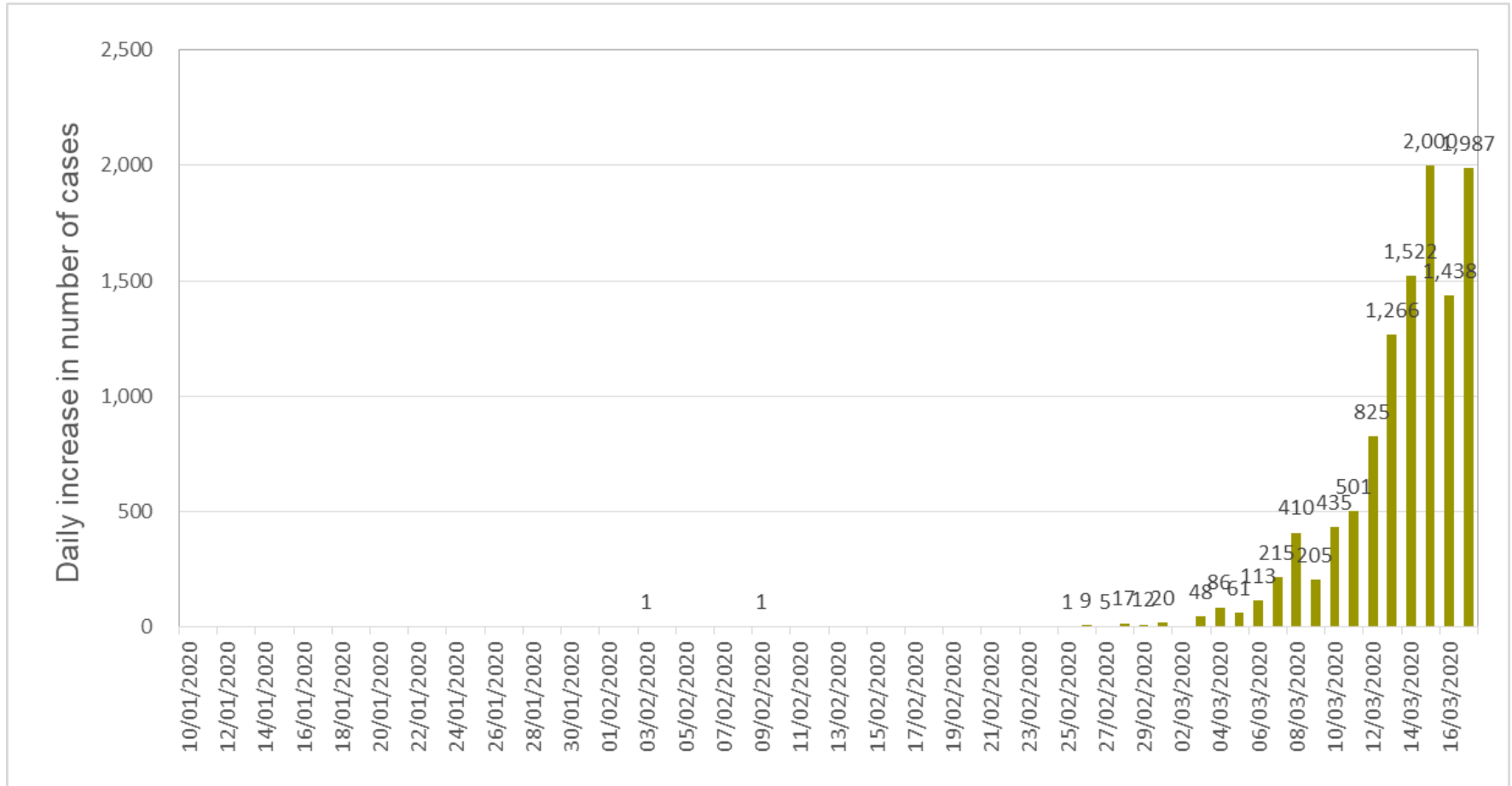
France



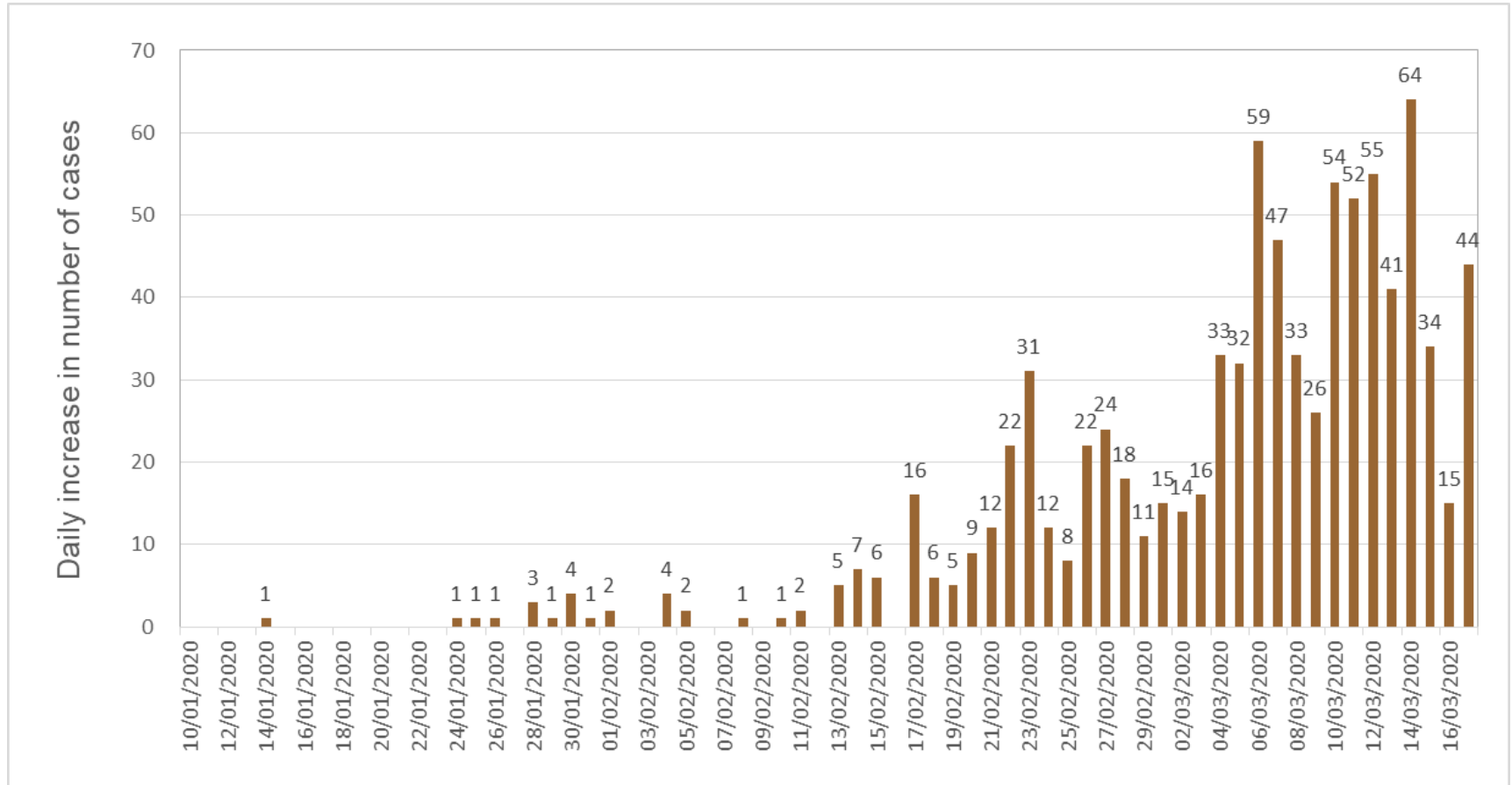
Germany



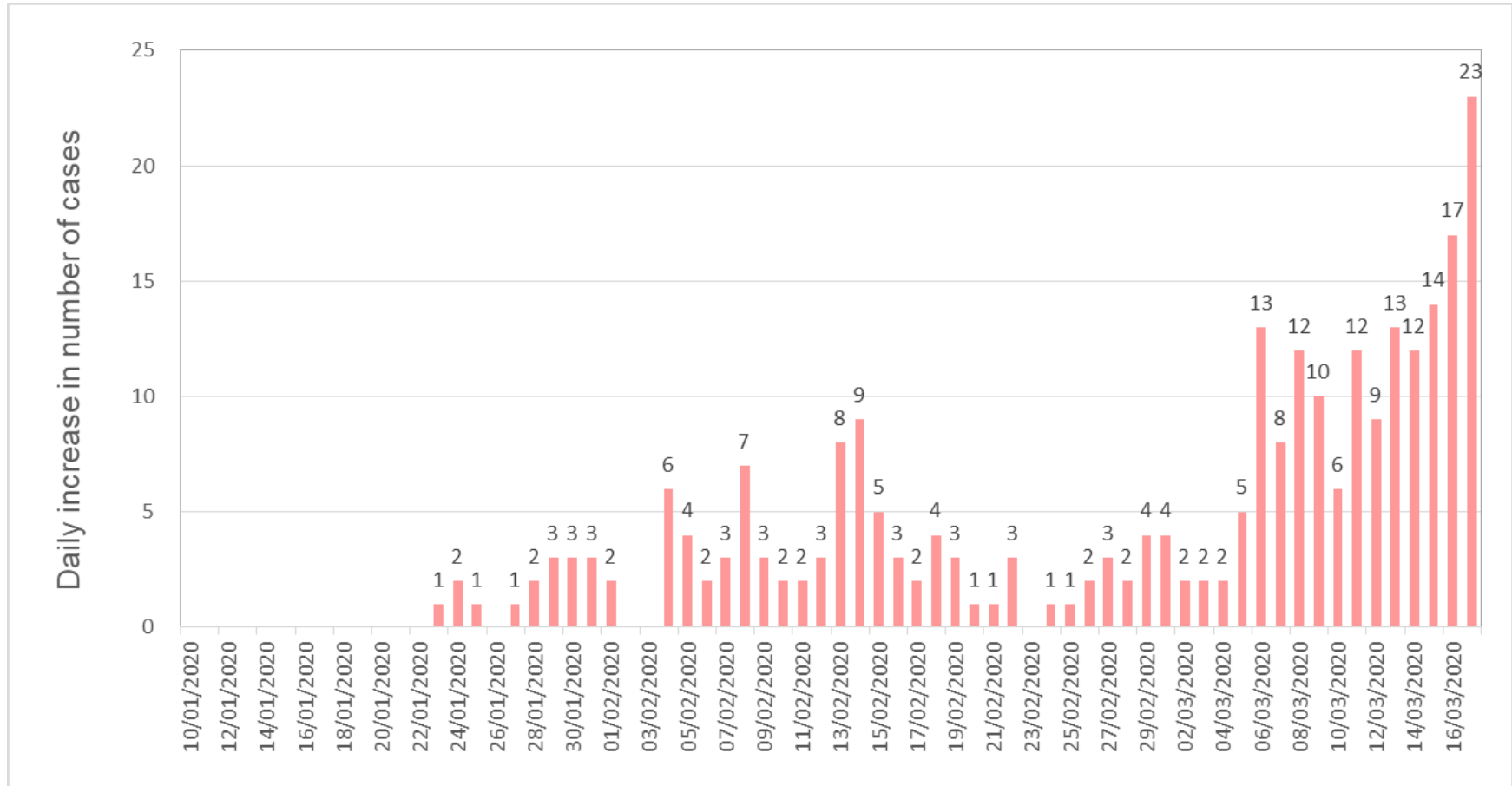
Spain



Japan



Singapore

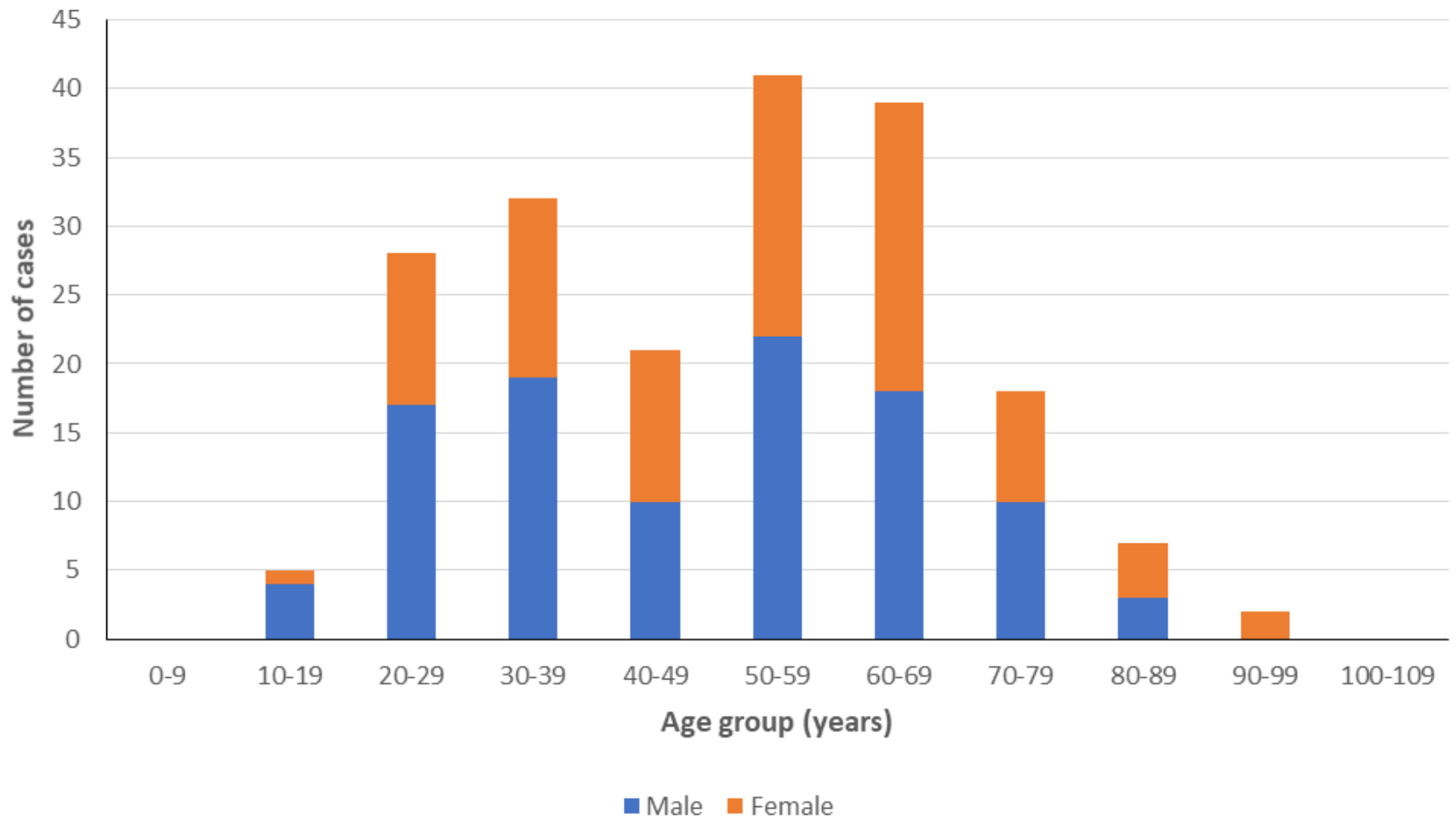


Local situation

Confirmed cases in HK

- Total 158 cases (as at 16 Mar)
- 82 males and 76 females
- Age range: 16 – 96 (median: 57)
- Identified through:
 - Cases fulfilling reporting criteria: 24 (15.2%)
 - Medical surveillance of contacts: 77 (48.7%)
 - Enhanced lab surveillance among in-patients in public hospitals: 37 (23.4%)
 - Enhanced surveillance among out-patients at GOPC / AED (Tier 4): 15 (9.5%)
 - Diagnosed by enhanced surveillance at private clinic: 3 (1.9%)
 - Diagnosed in private hospital: 2 (1.3%)

Age distribution of confirmed cases of novel coronavirus infection



Places / sources of infection

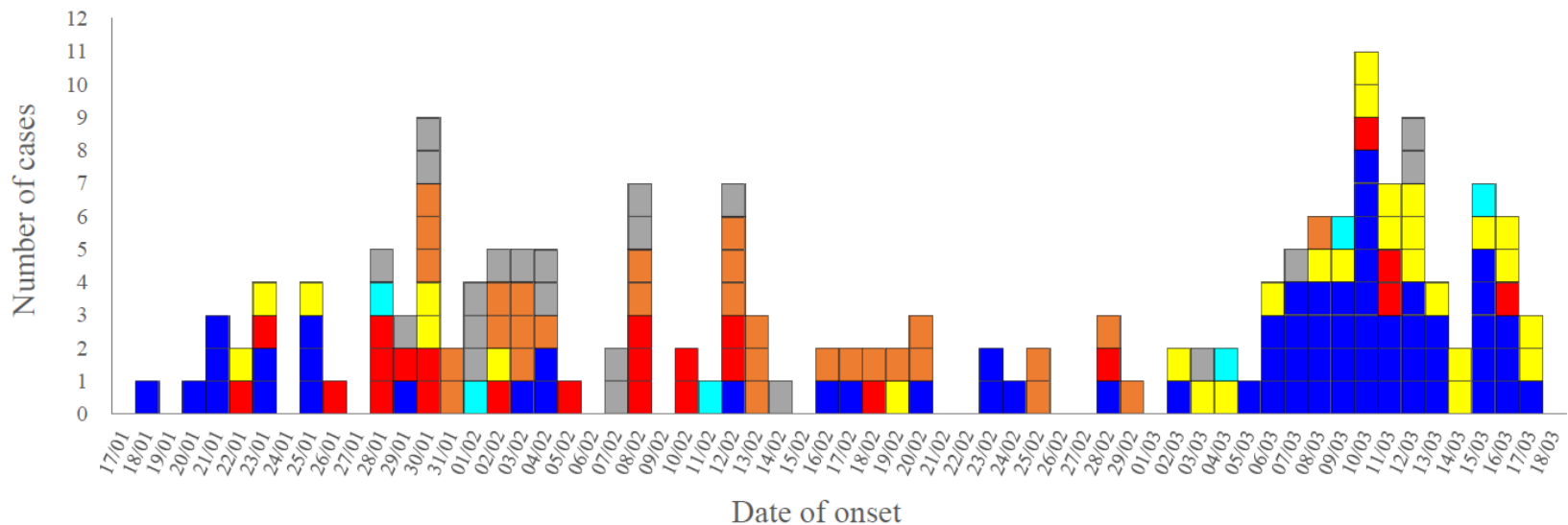
- Places/sources of infection
 - 64 (40.5%) imported cases / imported-related cases
 - 57 imported cases (12 from Wuhan, 10 from the Diamond Princess Cruise and 35 from other areas)
 - 6 imported-related cases with close contact with imported cases
 - 15 (9.5%) possibly local cases (with part of IP staying in places without definite community transmission, or with exposure to suspected case)
 - Remaining 79 (50.0%) were **locally acquired** infections
 - 21 with unknown sources
 - 58 were close contacts of local/possibly local cases

Clinical condition

- Ever critical: 10 (6.3%)
- Ever serious: 10 (6.3%)
- Stable: 138 (87.3%) (with 91 discharged already)
- Separately, 4 patients had died (2.5%)

Epidemic curve

- Onset of illness: 18 Jan – 17 March
- Except Diamond Princess cases, most cases with onset in Feb were locally acquired infections
- However, most cases with onset in March were **IMPORTED** cases
- Epidemic curve of confirmed/probable cases (as of Mar 18)



Epidemiological feature of COVID-19

- Human to human transmission is very efficient, as reflected by large number of clusters
- Asymptomatic or subclinical cases occur and they are able to transmit the disease
- Super-spreading events
- Environmental factors contribute to transmission
- In contrast to SARS, transmission in healthcare settings has not occurred locally for COVID-19

Human-to-human transmission

- Clusters were very common among cases in HK
- Only 34 (21.5%) were sporadic cases
- 124 (78.5%) were involved in 45 clusters
 - 32 primary cluster
 - 13 secondary clusters
- Size: 2 - 12 persons
 - 26 family clusters
 - 5 meal clusters (involving family members/relatives)
 - 4 workplace clusters
 - 1 large cluster relating to a Buddhist Temple (Fook Wai)
 - 1 cruise cluster (Diamond Princess)
 - 7 clusters related to travel tours
 - 1 bus cluster
 - 2 housing estate clusters

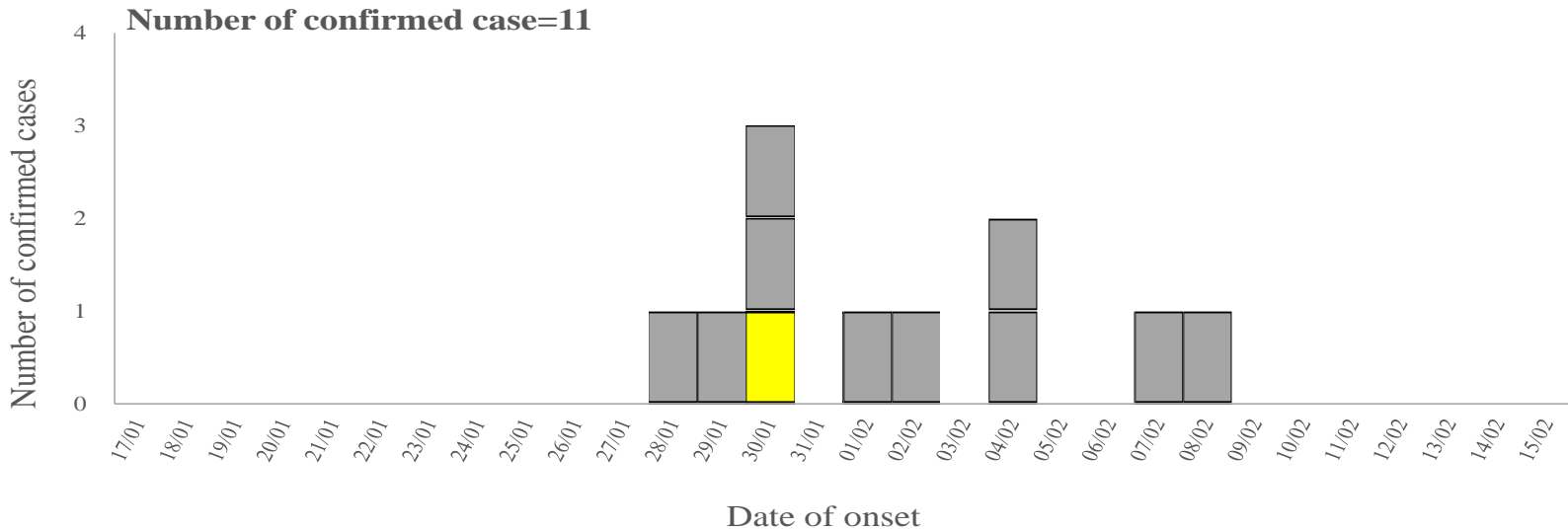
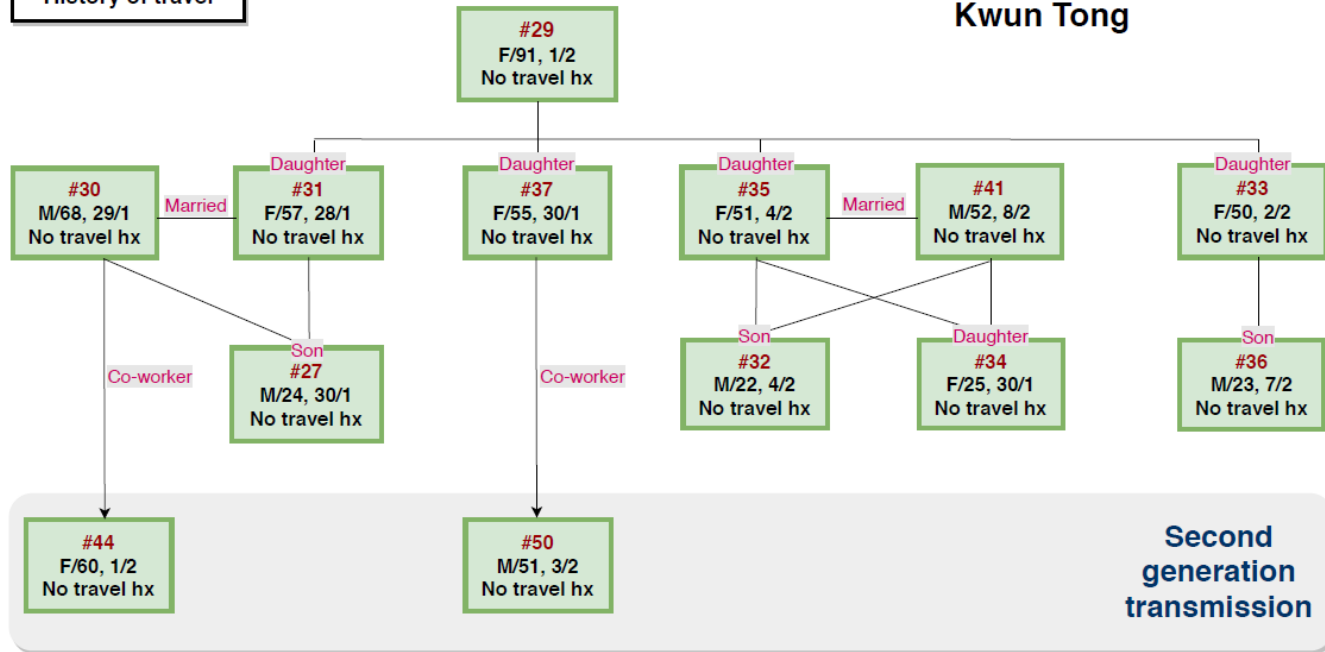
1st meal cluster (N=11+2)

- A group of 19 persons (relatives) had hotpot dinner in a party venue >1000 sq. feet on 26 Jan (年初二)
- 2 were relatives from Guangdong with one having had cough since ?20/1
- The one with cough was tested negative (PCR and antibodies) by Guangdong
 - Another one had onset of URI on 2/2, admitted to hospital with pneumonia on 9/2, tested positive on 10/2
 - Subsequently 11 cases (all HK residents) were confirmed, with onset from 28 Jan – 8 Feb
- 11 cases identified with the earliest onset on 28/1
- 2 cases further spread to 2 co-workers resulting in secondary clusters

Local case Possibly local case

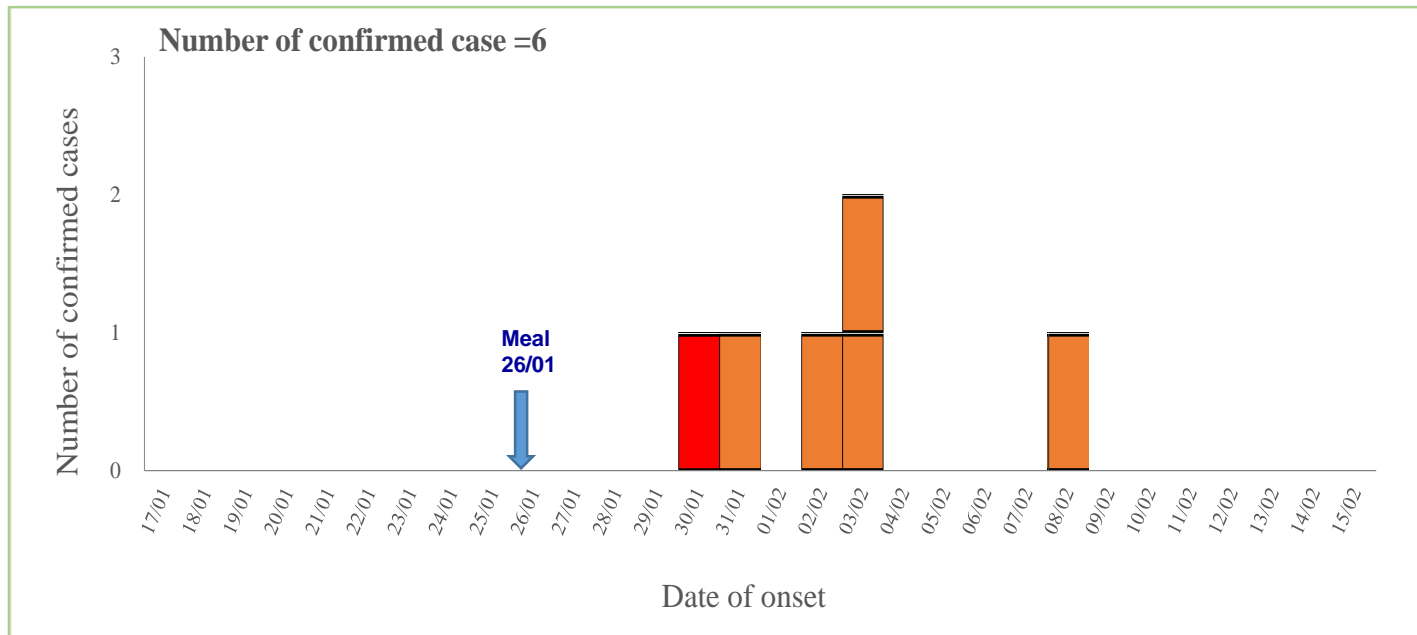
Case number
Sex/Age, onset date
History of travel

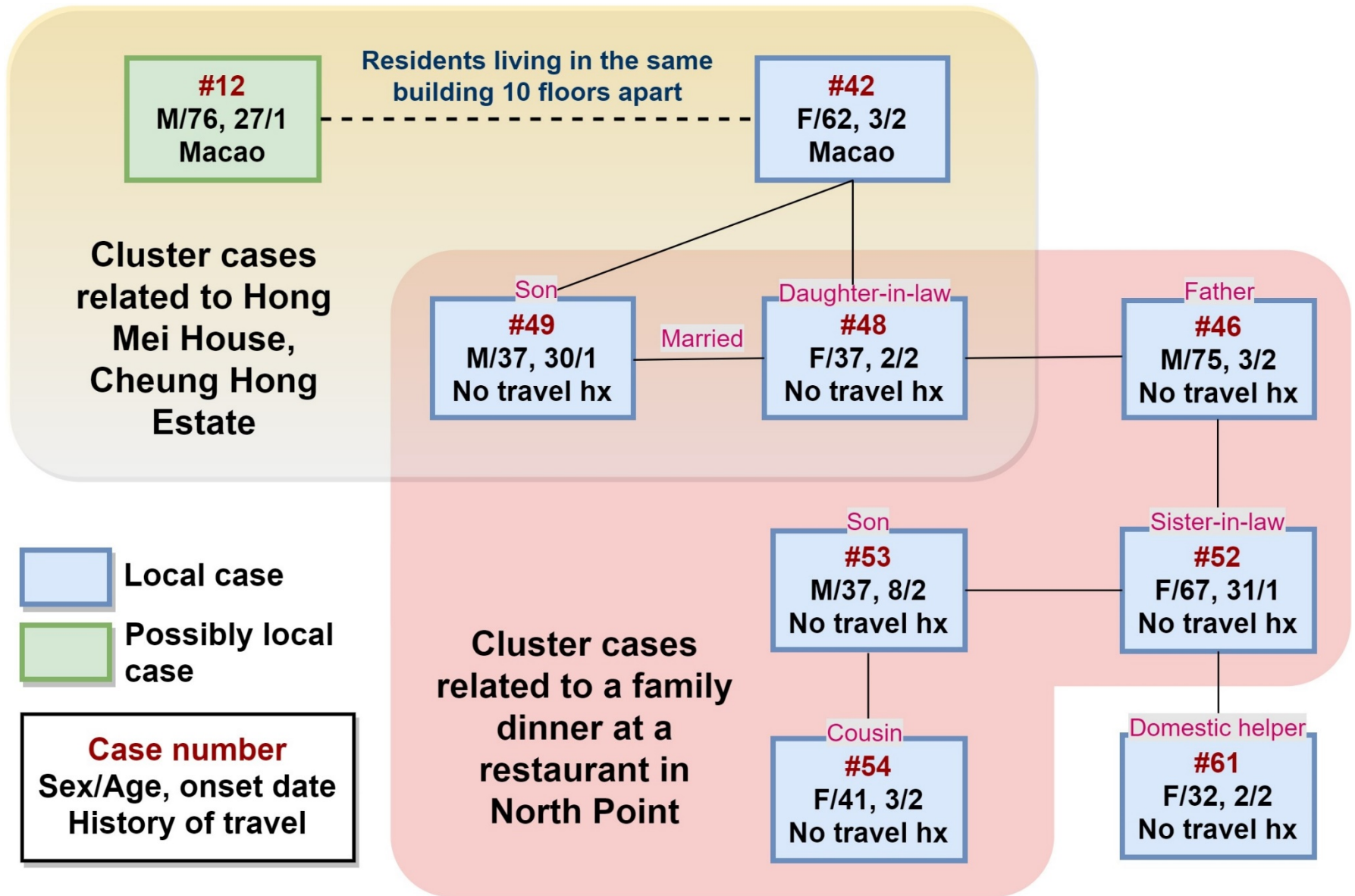
Cluster cases related to hotspot gathering at a party room in Kwun Tong



2nd meal cluster (N=6+1)

- 29 persons had a gathering event in a restaurant in North Point on 26 Jan (25 adults + 4 children) in 2 tables
- No persons reported to have symptoms on 26/1
- Subsequently 6 cases were confirmed, with onset from 30 Jan – 8 Feb
- 2 secondary cases among contacts who had not joined the meal (one family member of a household and a domestic helper of another household)





Hong Mei House investigation (1)

- 4 confirmed cases living in A07 flats on 2 different floors
- 1st case in room A07 on 13/F
 - Onset: 22/1; admission 24/1
- 2nd – 4th cases in room A07 on 3/F
 - Onset: 30/1, 2/2 and 3/2
 - The 2 cases with earlier onset (30/1 and 2/2) were also involved in the meal cluster in North Point on 26/1
- Total 34 flats of A07
- All the residents of A07 units were moved to quarantine camps as a precautionary measure
- All had saliva samples tested negative by RT-PCR

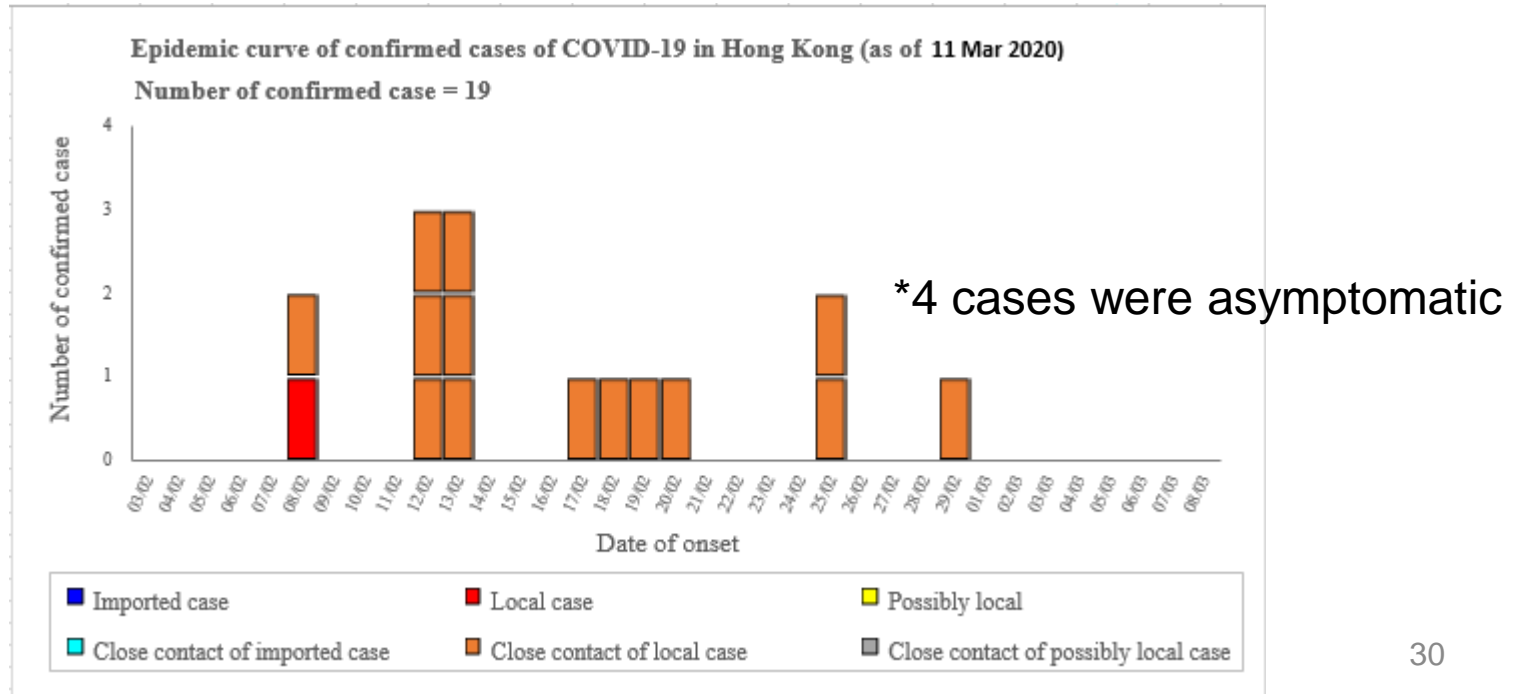
Hong Mei House investigation (2)

- Site inspection by multi-disciplinary response team revealed that the U-traps were functioning properly but the toilet vent pipe at A07 on 3/F was altered
 - Disconnected vent pipe not sealed
 - Immediate recapping and sealing by Housing Department
- Environmental swabs taken: negative
- Inspection of all A07 units with minor defects identified rectified
- Thorough disinfection were carried out for all A07 units



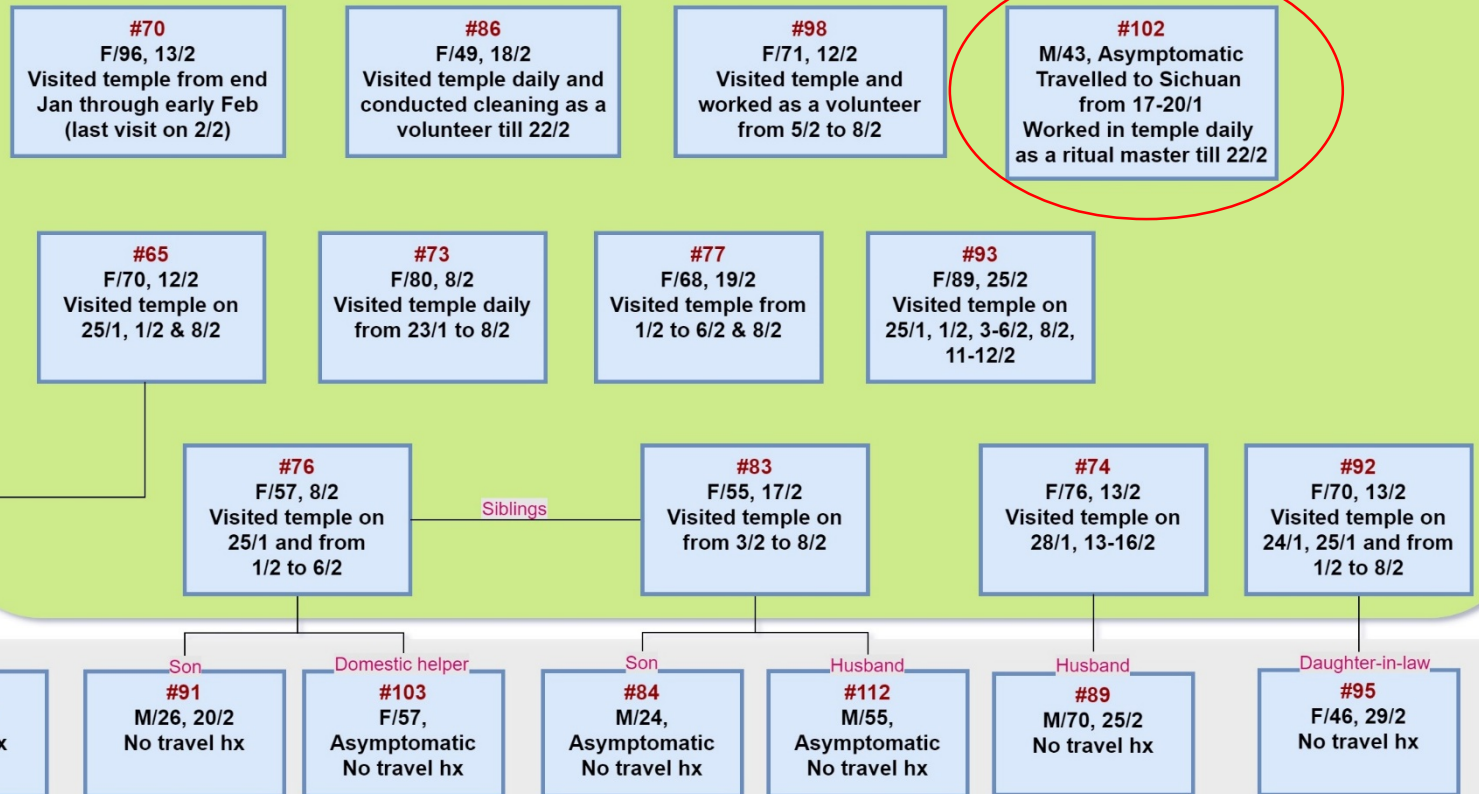
Buddhist Temple Cluster (N=12+7)

- Large cluster involving 12 persons who had visited Fook Wai Buddhist Temple at North Point from late January onwards
- Apparently most patients did not know each other
- Onset of illness between 8 – 29 Feb
- Age range: 24 – 96 (median: 60)
- Another 7 family contacts who did not visit the temple were also confirmed



Buddhist Temple Cluster (N=12+7)

Cluster cases related to a Buddhist temple in North Point



Second generation transmission

Buddhist Temple Cluster

- CHP collected a number of environmental samples from the Temple
- 2 environmental swabs were tested positive for COVID-19 virus by RT-PCR
- Disinfection of the temple was carried out
- Swabs taken after disinfection were all tested negative

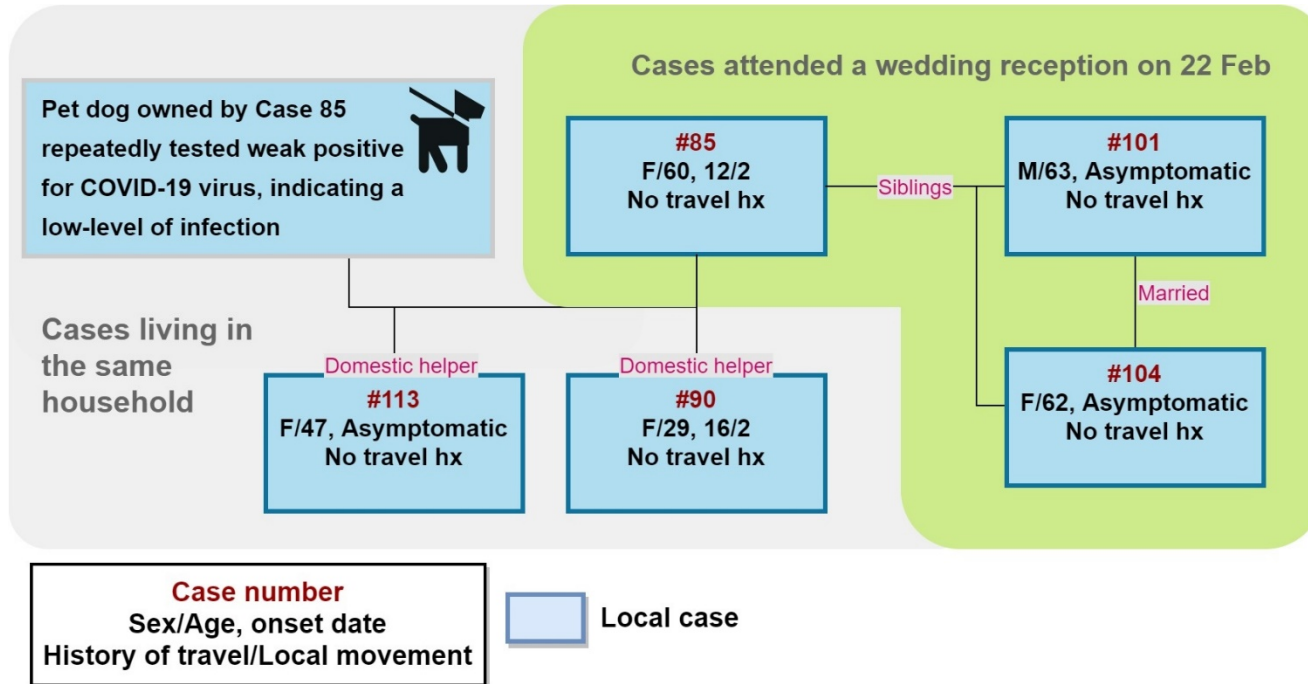


Diamond Princess returnees

- About 700 cases among >3700 passengers and crew (attack rate ~20%), index remained unknown (initially suspected to be a HK case #14 with onset on 23/1)
 - At least 70 HK residents infected out of about 350
- 228 returnees were admitted to quarantine camp
- All were not classified as close contacts and were released for quarantine by Japan (tested negative before disembarkation as claimed by Japan)
- 10 cases (4.6%) tested positive by RT-PCR (6 with symptoms)
 - Onset: Feb 4 -24
- Another probable case with COVID-19 antibody detected by HKU but with negative PCR
- All cases were in stable condition

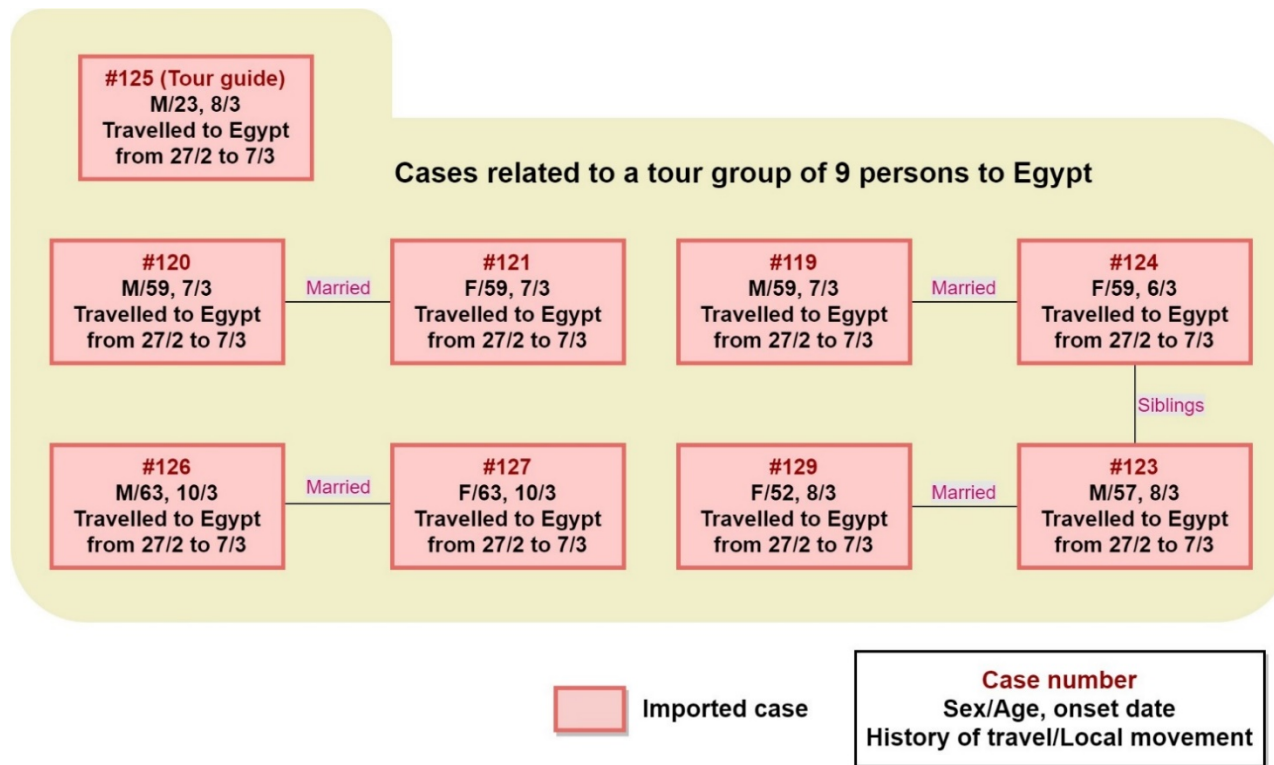
A banquet cluster (N=3+2)

- Index case was a 60-year-old woman with onset on Feb 12
- Unknown source local case
- Her 2 close contacts in a banquet and her 2 domestic helpers were subsequently confirmed
- The dog of the index was also tested positive for COVID-19
 - Remained asymptomatic



Egypt tour outbreak (N=9)

- 8 travellers and 1 tour guide (all confirmed, attack rate 100%)
- 24/2 – 7/3 to Egypt
- Onset 6/3 – 10/3
- Contact tracing is ongoing



Heng Tai House investigation

- 3 confirmed cases living in “13” unit on 2 different floors
- First 2 cases were a couple who joined the Egypt tour group
 - Living in unit 13 on 32/F
 - Imported cases from Egypt
 - Onset: 6/3 and 7/3; admission 10/3
 - Stool from both cases positive for SARS-CoV-2
- 3rd case in unit 13 on 34/F
 - Onset: 10/3
- A total of 21 households (i.e. residents of "13" and "14" units of the 29th - 34th floor) were transferred to quarantine centres as a precautionary measure

MDRT

- Environmental swabs taken:
 - 4 positives out of 12 environmental samples
 - 2 collected near water closet of the unit on 32/F
 - 1 near water closet of the unit on 34/F; and
 - 1 inside open end of the rooftop ventilating pipe of the foul water stack of Unit 13
- Disinfection/ inspection of the units are ongoing
- Saliva samples from the 43 residents evacuated were negative

Recent cases

- Among 57 cases recorded 3-16 March
- 34 (59.6%) imported cases
 - UK, US, Canada, Austria, France, Egypt, India, etc.
- 8 (14.0%) had travel history during part of IP
- 8 were close contacts of imported cases or cases with travel history
- Only 7 were local cases or close contacts of local cases
- Risk of travel is very high for all countries
- Official statistics of reported cases in overseas countries not reliable for risk assessment

Thank you

1. Case-based surveillance

- Since 31 Dec 2019
- Latest reporting criteria
 - Presented with fever* **OR** acute respiratory illness **OR** pneumonia; **AND**
 - Either one of the following conditions within 14 days before onset of symptom:
 1. With travel history to a place with active community transmission of COVID-19*; **OR**
 2. Had close contact with a confirmed case of COVID-19

**Current list:* Mainland China, Korea, Italy, Iran, France (Bourgogne-Franche-Comté and Grand Est), Germany (Nordrhein-Westfalen), Spain (Madrid, La Rioja and País Vasco) and Japan (Hokkaido)

https://www.chp.gov.hk/files/pdf/statistics_of_the_cases_novel_coronavirus_infection_en.pdf

2. Enhanced laboratory surveillance

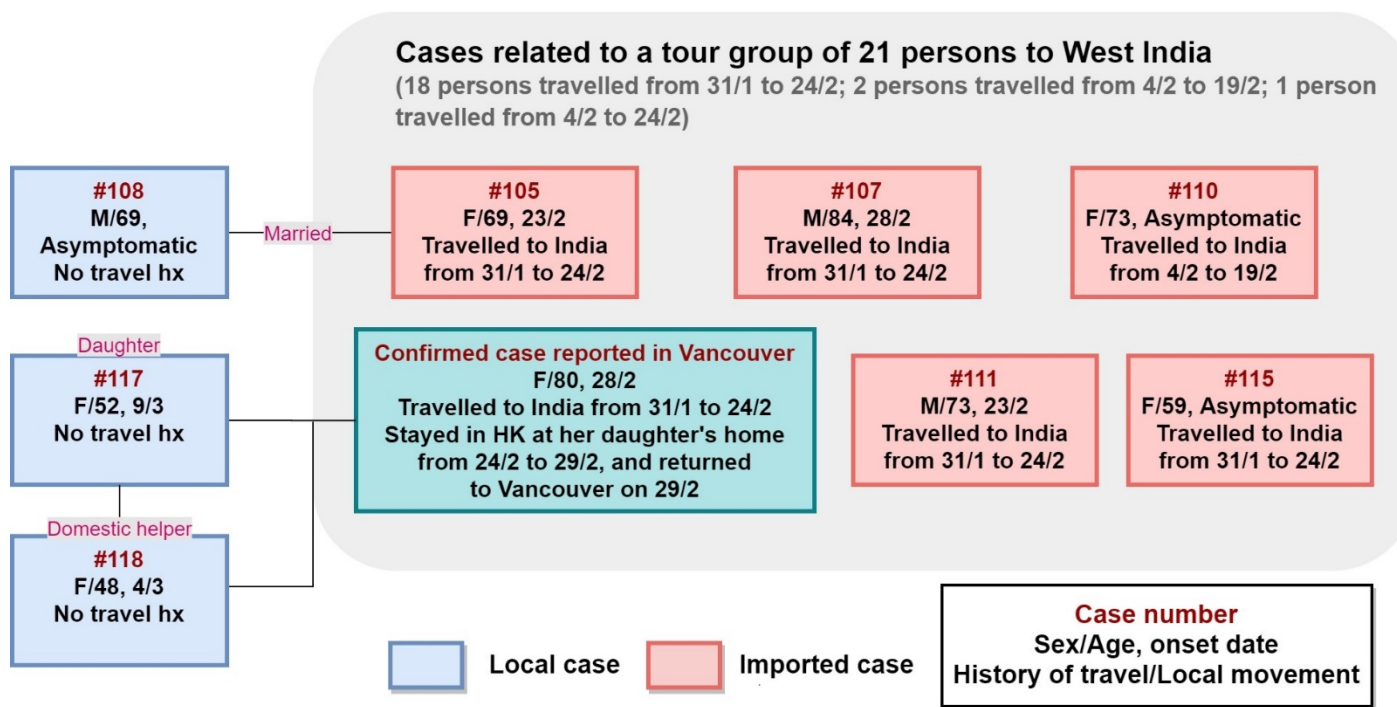
- Since 13 Jan:
 - Pneumonia cases with unknown cause, requiring ICU care, occurring in clusters, or who is a HCW
- Since 21 Jan:
 - Any inpatient with pneumonia and travel history to Mainland China within 14 days before onset of symptoms
- Since 31 Jan:
 - ALL in-patients with pneumonia
 - required to stay in the isolation wards or surveillance wards until the test results for novel coronavirus are available
- Currently, around 800-900 samples tested per day in HA

3. Enhanced surveillance in Outpatient Settings

- Since 19 Feb:
 - GOPC and AED out-patients aged 18 or above presented with:
 - 1) Fever and respiratory symptoms; OR
 - 2) Mild chest infection
 - Collection of early morning 'deep throat saliva' for testing in PHLSB
 - Since 27 Feb, extended to paediatric patients and patients with fever or respiratory symptoms subject to clinical assessment of physician in charge
 - Around 300-400 specimens tested per day
- CHP has offered free COVID-tests for all private doctors since 9 March. The service has been enhanced to allow patients to send specimens to specified collection points in DH's clinics since 12 March.

India tour outbreak (N=6+3)

- 6 cases among a tour with 20+ persons (5 cases in HK and 1 case in Canada)
- Travelled to India 31/1- 24/2
- Onset 23/2 – 28/2 (2 asymptomatic cases)
- Secondary spread to 3 household contacts



Diamond Princess returnees (N=10 confirmed + 1 probable)

