

Updates on COVID-19 in Japan



May 18th, 2020

Ministry of Health, Labour and Welfare

Today's points

1. Epidemiological Update
2. Recent Policy Update
3. Factors considered upon relaxation of the State-of-Emergency Measures
4. Scope for future
5. Antigen Testing
6. Development of Potential Medications

1. Epidemiological Update

- The cumulative number of infections is 16,305. (May 17th)
- The trend in the number of new infections is certainly slowing down.

Confirmed cases in Japan

As of 0AM, May 18, 2020

	PCR tested	PCR tested Positive	Need Inpatient treatment		Discharge or end of medical treatment	Death	Under confirmation
				Critically Ill			
Domestic cases (excluding returnees by Chartered flights)	211,757 (+1,730)	16,132 (+28)	3,667 (-120)	228 (-2)	11,547 (+149)	749 (+5)	169 (-14)
Airport quarantine	34,490 (+657)	158	156	0	2	0	0
Returnees by chartered flights	829	15	0	0	15	0	0
Total	247,076 (+2,387)	16,305 (+28)	3,823 (-120)	228 (-2)	11,564 (+149)	749 (+5)	169 (-14)

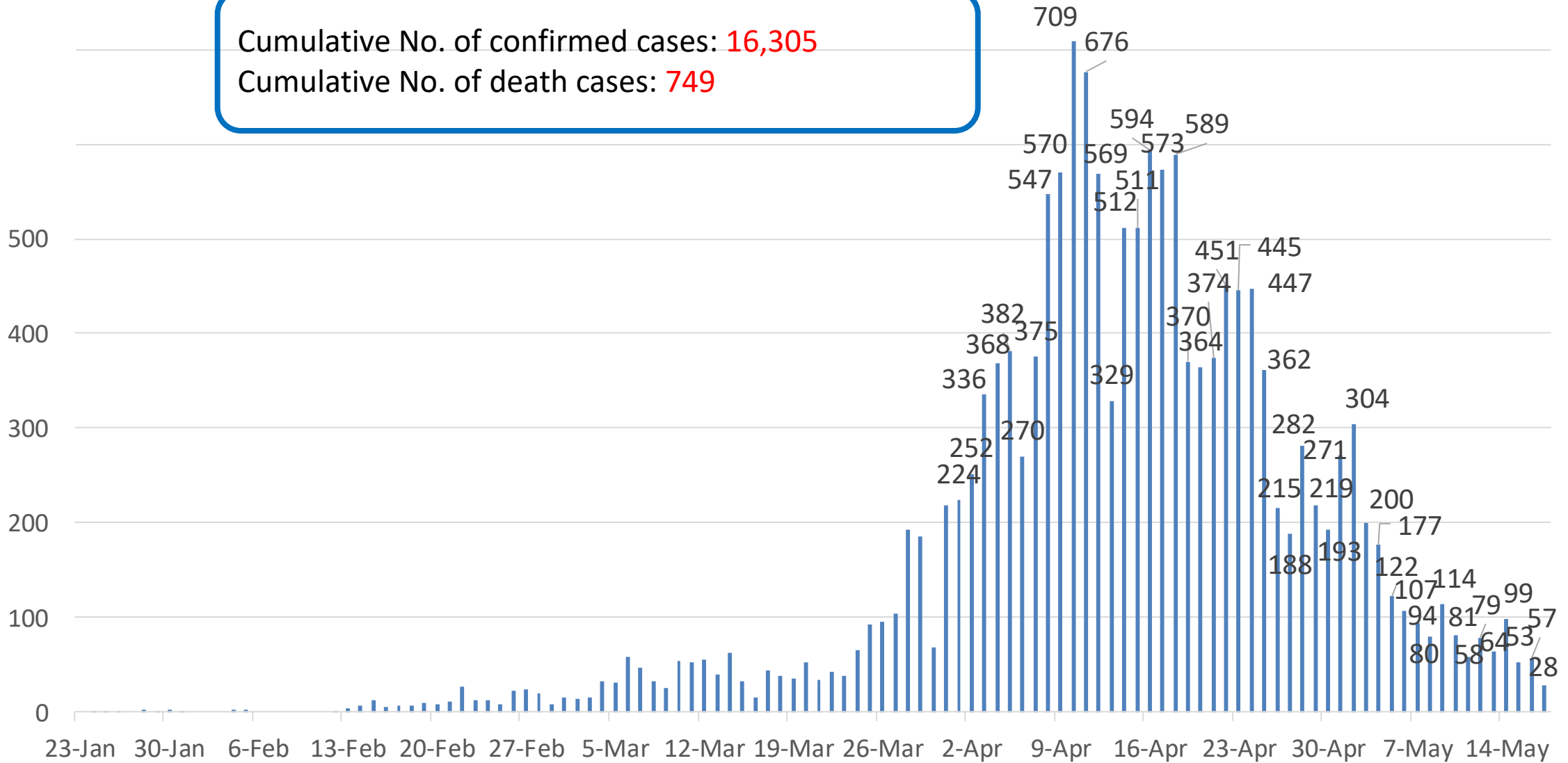
The number in parentheses indicates the change from the previous day.

The trend of No. of confirmed cases

As of 0 AM, May 18, 2020

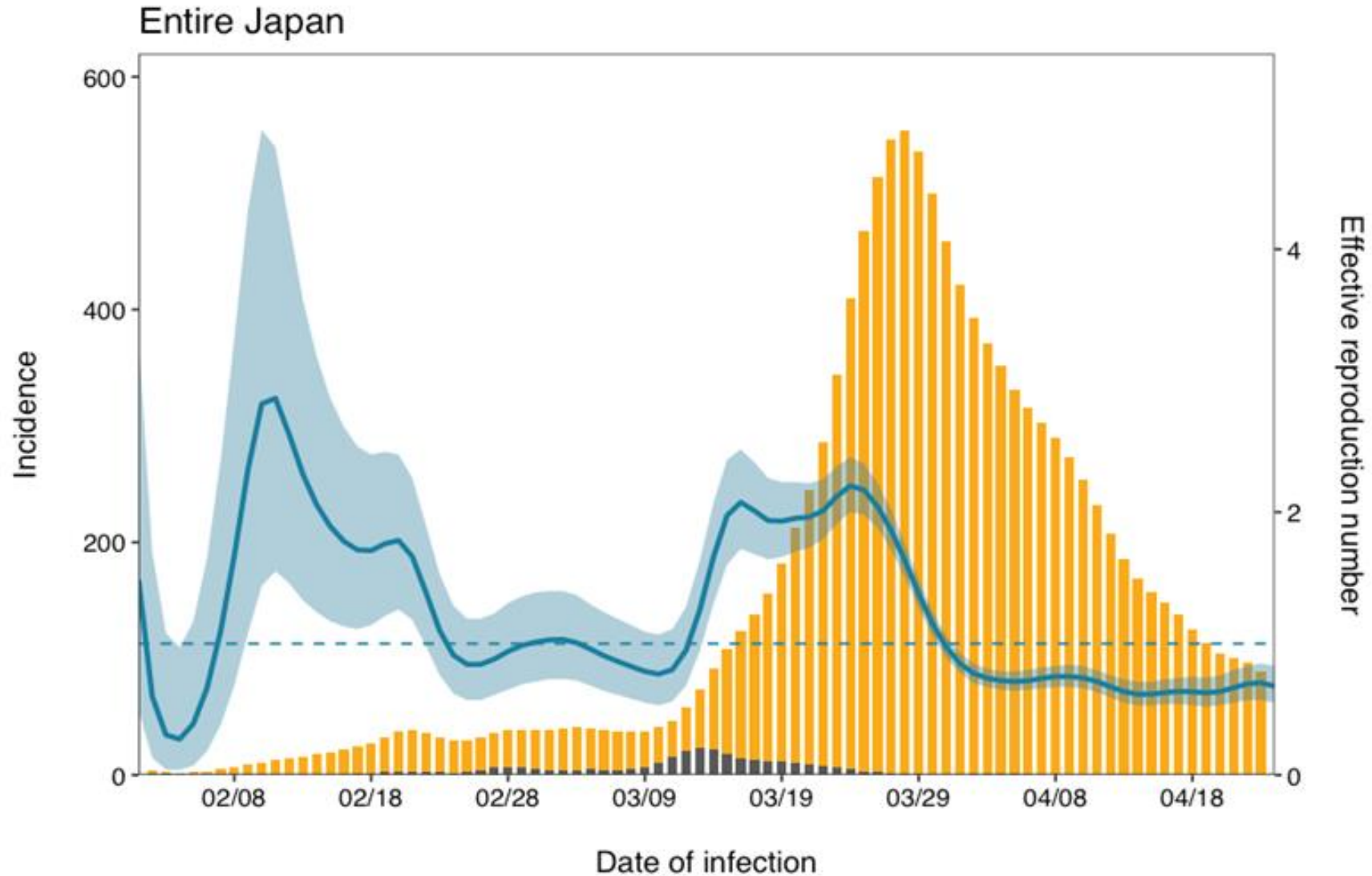
Cumulative No. of confirmed cases: 16,305

Cumulative No. of death cases: 749



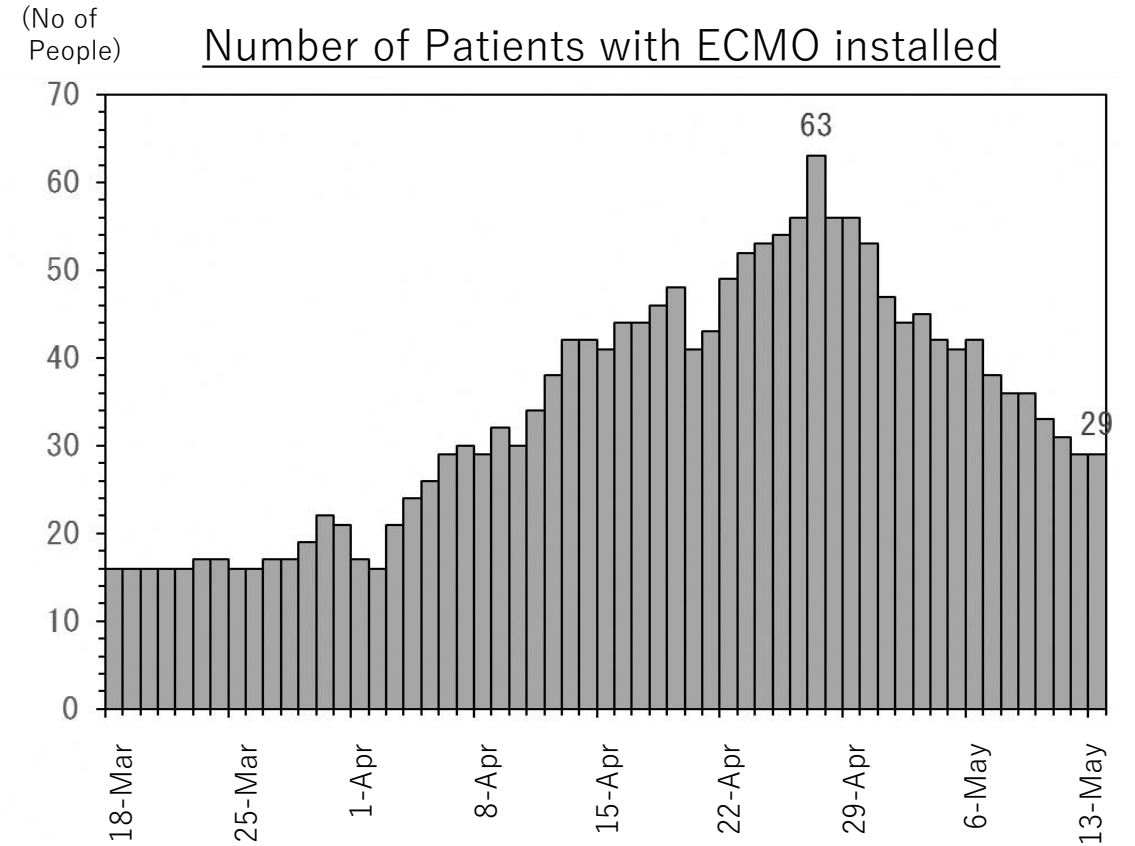
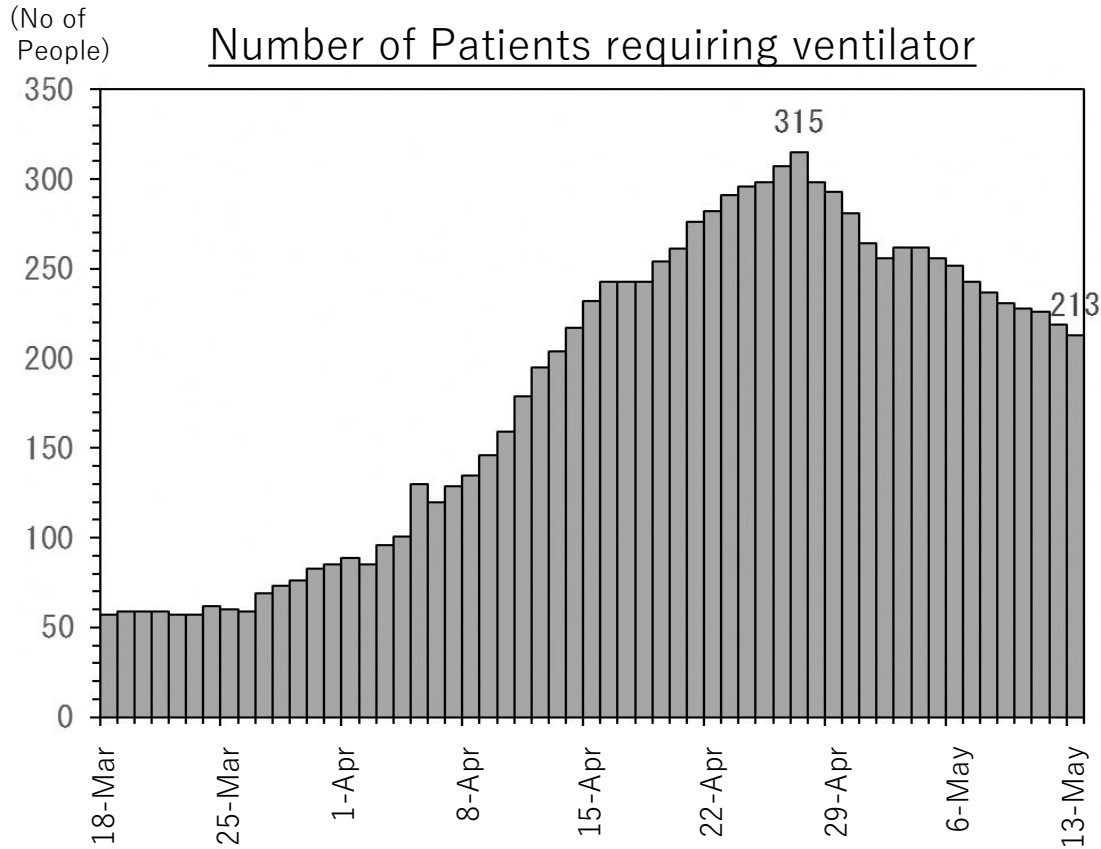
Effective Reproduction Number

(<1 since the beginning of April)



Number of Patients who need ventilator in Japan

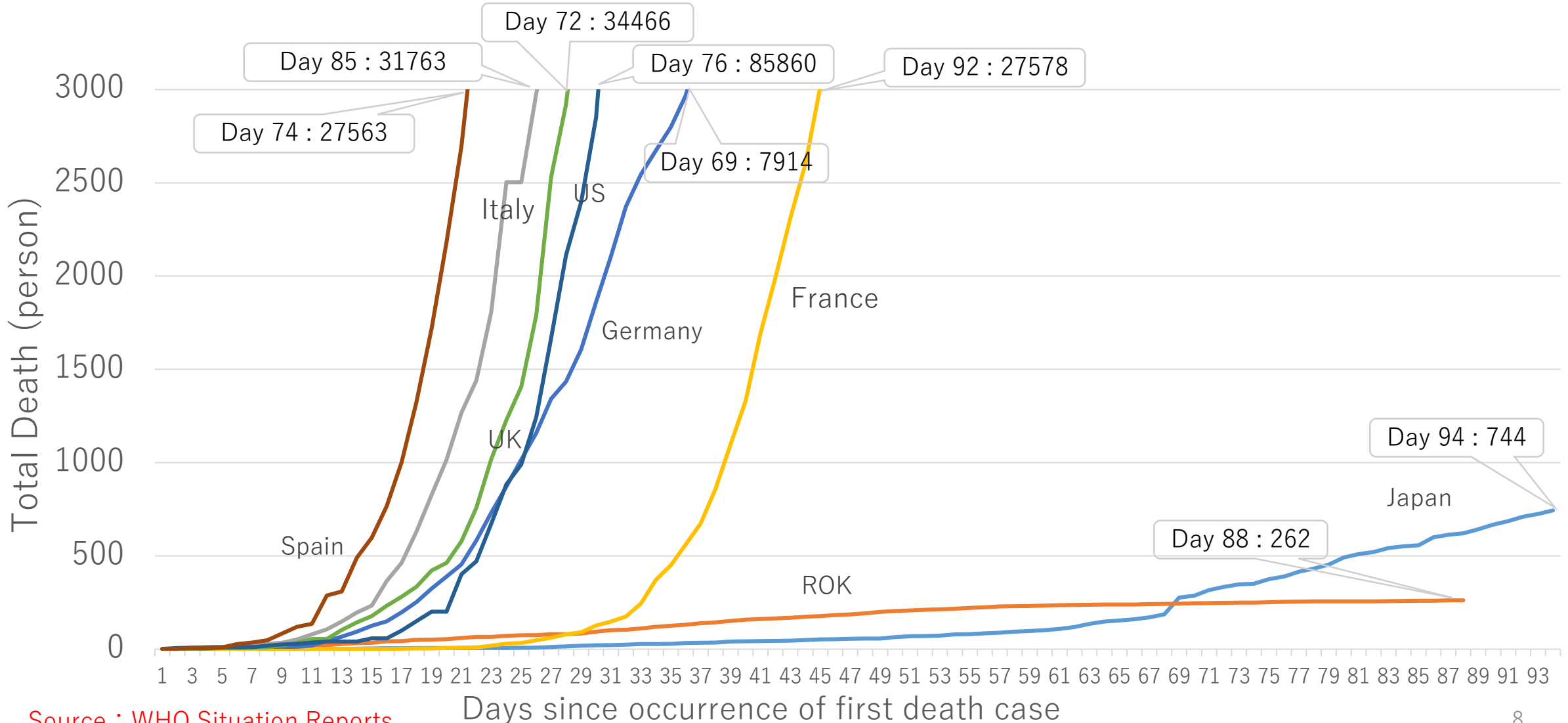
Both numbers are decreasing.



The trend of death cases in several countries

As of **May 17, 2020**

- Slow increase of death cases
- Burden on local health system is not overwhelming so far



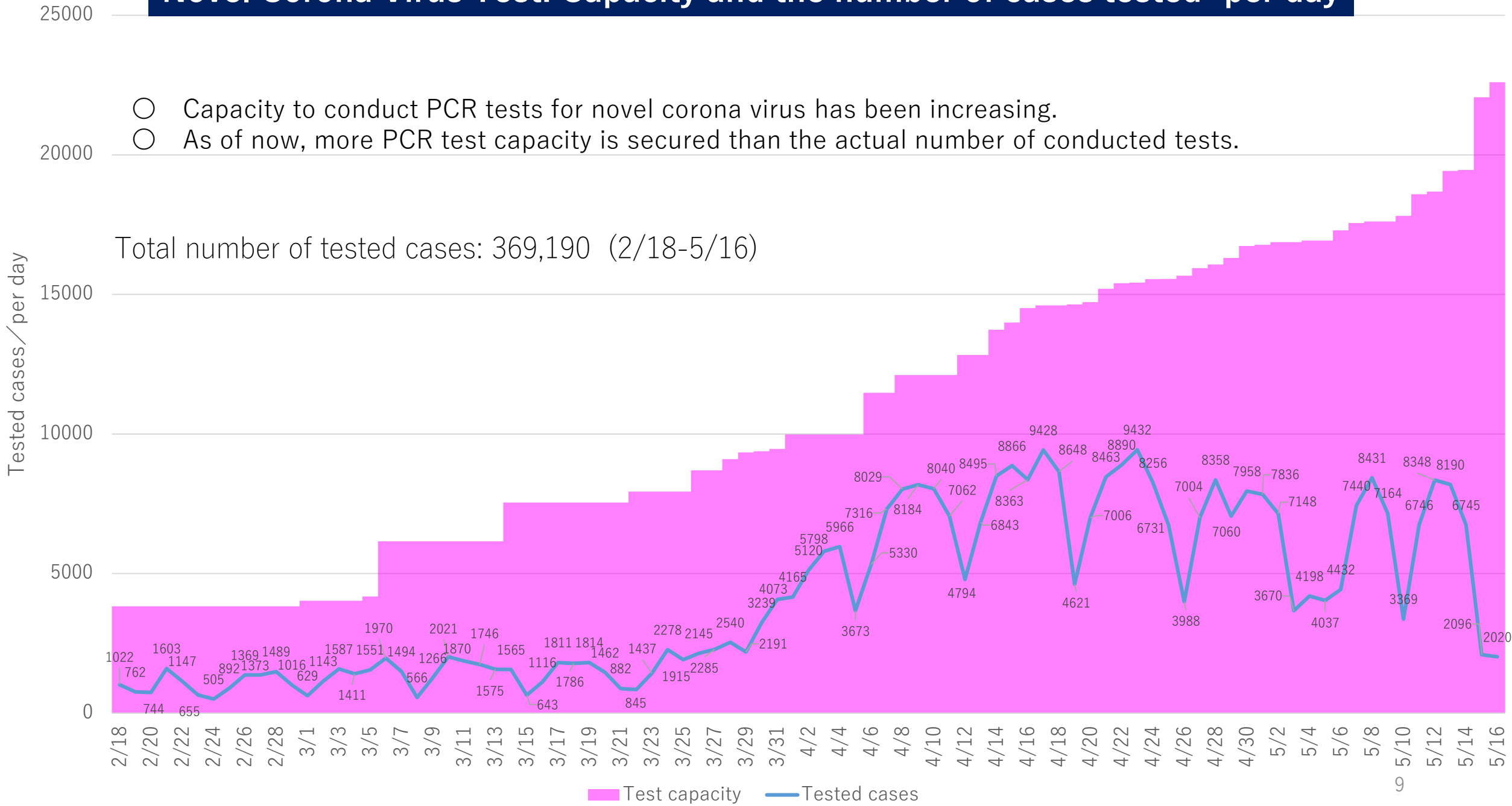
Source : WHO Situation Reports

As of 22 April, Japan changed the method of reporting deaths, which now includes both the number of (i) deceased cases with complete data matching and verification; and (ii) deceased cases whose data matching and verification are in progress.

Novel Corona Virus Test: Capacity and the number of cases tested per day

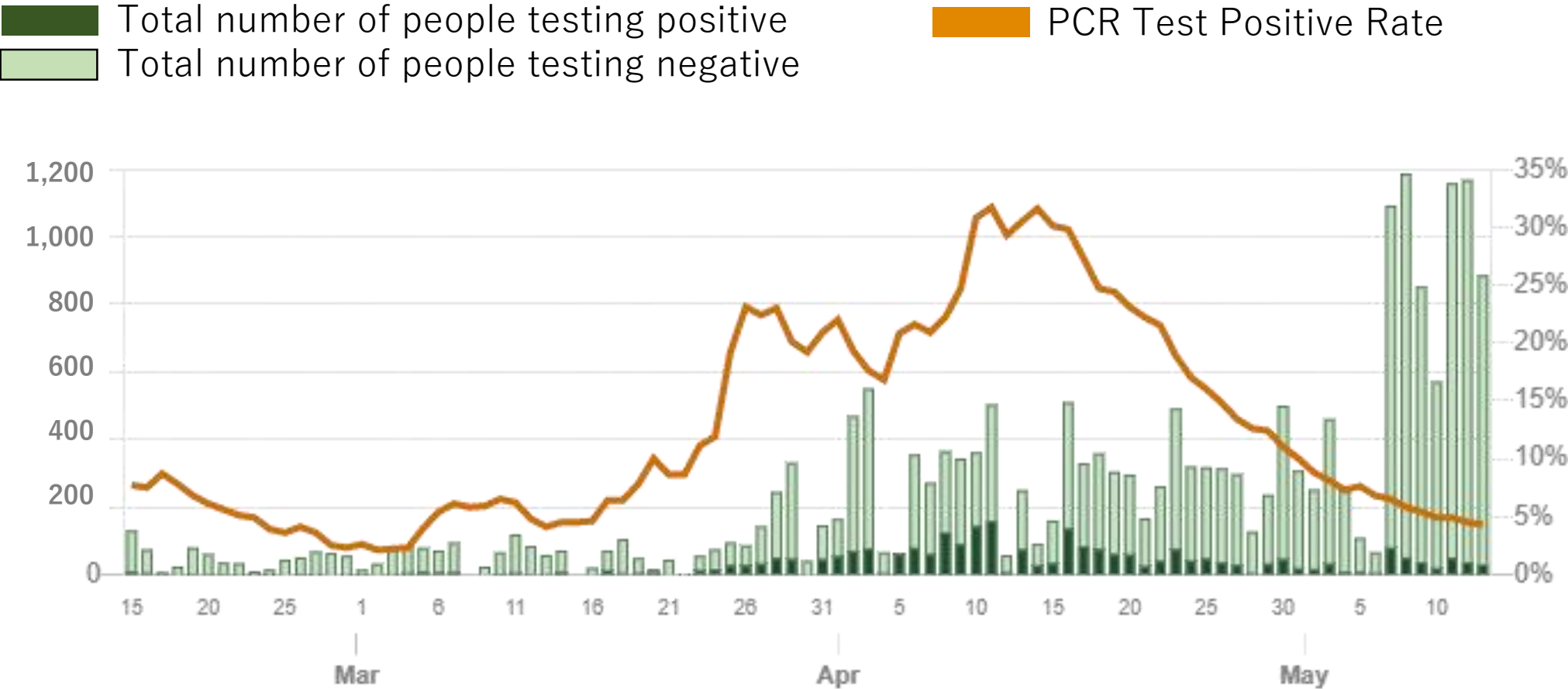
- Capacity to conduct PCR tests for novel corona virus has been increasing.
- As of now, more PCR test capacity is secured than the actual number of conducted tests.

Total number of tested cases: 369,190 (2/18-5/16)



PCR Test Positive Rate and Number of PCR Tests Conducted in Tokyo

PCR Test Positive Rate: 4.3% (as of May 13).



Source: "Tokyo COVID-19 Information (As of May 14), prepared by Tokyo Metropolitan Government

2. Recent Policy Update

- The state of emergency has been announced initially on the 7th April was upgraded to a nationwide measure on the 16th April.
- On 4th May, the nationwide state of emergency was extended until the 31st of May. The 13 “designated prefectures under specific cautions” remained under specific cautions.
- On 7th May, the use of Remdesivir as a treatment for severe COVID-19 patients under an expedited process
- On 13th May, Antigen Testing Kits approved
- On 14th May, it is decided 8 prefectures to remain under “specific cautions”, whilst other regions will be released from the state of emergency.

3. Factors considered upon relaxation of State-of-emergency measures

The decision is based on comprehensive understanding of

- ① Epidemiological trend
- ② Medical Capacity
- ③ Surveillance System

In addition to above,

- We emphasize the readiness to relax the State-of-Emergency Measures even in during the planned state of emergency period, should there be enough evidence to suggest the safe lifting of the measures.
- We value the independent initiatives lead by the governing bodies of the each regions, taking into account the importance of considering risks and involved in across region movement of people.

① Epidemiological Trend

- number of recent cases
 - The number of new cases remains lower than that of week prior, and present a decreasing trend
 - The number of new weekly cases per 100,000 below 0.5 (equivalent of situation in March before the fulminant expansion of COVID in Japan)
- doubling time
- the rate of community infection without known contact

(1) Prevalence (Epidemiological situation)

		A	B	C	D	E	F
		Population	Cumulative positive cases within the proximate week	Cases per 100,000 population (A/(B/10))	Cumulative positive cases within the week before	Ratio of the proximate week to the week before (B/D)	Ratio of the cases where the infection routes are unknown
Point in time		2019.10.1	-5/10 (1W)	-5/10 (1W)	-5/3 (1W)		-5/8 (1W)
Unit		number of people (in thousand)	number of people	--	number of people	--	--
Area	Tokyo Metropolis	13,921	200	1.437	648	0.31	61%
	Fukuoka Prefecture	5,104	6	0.118	25	0.24	14%
	Whole Country	126,167	608	0.048	1,466	0.41	35%

[Notes]

A: Population Estimates (Table 4. Population by Sex and Sex ratio for Prefectures - Total population, Japanese population, October 1, 2019)

B,D: Cumulative cases at the day of report. The number of positive cases reported from the prefectural government (PG) were adjusted by the Ministry of Health, Labour and Welfare (MHLW) using information on PG websites.

② Medical Capacity

- Enough resources are secured in case of increase in number of patients, especially patients in severe conditions.
- In order to visualize the demand and the supply real time various electronic system has been put in place.
 - availability of beds, ventilators and ECMOs, severe patients log

(2) Medical Service Capacity

		G	H	I	J	K	L	P	Q	R
		Hospitalized patients / determined hospitalization	Severe cases amongst	Hospitalized patients / determined hospitalization	Severe cases amongst	Patients treated at accommodation facilities		Secured available beds	Expected available beds to be secured	Secured accommodation facilities for treatment
Point in time		5/7		4/28		5/7	4/28	5/1	5/1	5/1
Unit		number of people	number of people	number of people	number of people	number of people	number of people	number of beds	number of beds	number of rooms
Area	Tokyo Metropolis	1,511	93	1,832	93	149	198	3,300	4,000	2,865
	Fukuoka Prefecture	138	13	217	21	65	88	430	1,800	826
	Whole Country	4,449	341	5,627	381	869	862	16,144	31,427	16,113

[Notes]

G,I: Determined hospitalizations are cases where the hospitals the patients will be hospitalized is determined and the patients will be hospitalized within a day.

H,J: Severe cases are the case where the patients are administered to intensive care units (ICUs), on ventilators or on extracorporeal membrane oxygenation (ECMO).

P: The beds PGs have coordinated to medical facilities and secured at the point in time for use at the peak of COVID-19 spread.
The number of Tokyo Motropolis is from the report of 5/11. (The number on 5/1 is 2000.)

Q: The beds PGs expect in time for use at the peak of COVID-19 spread. The number may change over time.

R: The rooms PGs have assessed that are available for administration of patients and reported to MHLW.
They may be used as accommodations for staffs, storage or doctor's or nurse's waiting room.
(The number may decrease over time, when the actual number has become available.)

③ Testing System

- Development of resource and infrastructure to detect and take action at the earliest signs of relapsing number of cases has been put to the utmost importance.
- In order to help the above, antigen testing kit has been approved

(3) Testing Capacity

		S	T	U	V	W
		PCR test performed in the proximate week	PCR test performed in the week before	Ratio of the proximate week to the week before (S/T)	(Reference) Positive cases of the weeks	
Point in time		-5/6 (1W)	-4/29 (1W)		-5/6 (1W)	-4/29 (1W)
Unit		number of tests	number of tests	--	number of people	number of people
Area	Tokyo Metropolis	8,842	11,398	0.78	638	682
	Fukuoka Prefecture	1,589	2,405	0.66	12	76
	Whole Country	40,159	51,899	0.77	1,355	2,020

[Notes]

S: Enumerated the numbers from the following two sources:

(1) The number of tests performed at Regional Institutes of Health or Public Health Centers, reported by PGs.

(2) The numbers of tests performed at private testing firms, universities and medical facilities under the requests of MHLW. The figures are based on the report obtained at the time, in which some facilities may have not reported the number yet. Number of PCR tests performed tend to decrease on weekends and holidays. The week of 5/6 was amid a long consecutive holidays, hence the number may have greatly decreased.

4. Scope for the future

- Adoption of “New lifestyle” to prevent the spread of the infection
- Providing clear guidelines to each industries.
- Shift to a system that carry out tests which doctors consider necessary, promptly and reliably for suspected patients, including mildly ill patients.

5. Antigen Testing

- We have approved antigen testing on the 13th May
- We consider the advantage of Antigen Testing to be;
 - Low incidence of false positive
 - Short diagnostic time required (<30mins)
 - Resource of potentially 200,000 per week.
- We expect it to be useful in definitive diagnosis in population where pre-test probability is high.
(ex Pt with known exposure, nosocomial settings, suspected new cluster)
- However, due to the higher incidence of false negative, we plan to conduct PCR test for definitive diagnosis for negative cases

Antigen Test Kit

* Developer: Fujirebio Inc.

COVID-19 Rapid diagnosis test kit (antigen assay kit)

Collect nasopharynx swab from a patient, drip solution with specimen to the cartridge and wait for approx. 30 minutes.

Check if the indicator line has appeared to determine the presence of the virus.

(Basis)



Detect the presence of an antigen, a protein specific to novel coronavirus (n-CoV), with an n-CoV specific antibody

Features

- Light weight, compact sized (palmtop sized)
- Instant test result at the site in a short time (approx. 30 min.)
 - * Takes 4-6 hours in the PCR test
- Can be applied to definitive diagnosis for positive symptomatic patients, despite the lower sensitivity compared to the PCR test
 - * PCR test is required for Definitive diagnosis for negative cases

Note:

This kit was Developed by the industry-academia collaboration.

(AMED (Japan Agency for Medical Research and Development) research group "Research on development of diagnostic tests for the novel coronavirus disease (COVID-19)" group (Principal researcher: Tadaki Suzuki, Director, Department of Pathology, National Institute of Infectious Diseases))

Development of Potential Medications for COVID-19

“Development of Clinical Remediation for Severe cases” Research Group (Health and Labor Sciences Research Grant)
(N. Ohmagari: Director, Disease Control and Prevention Center, National Center for Global Health and Medicine)

1. Observational Studies: **Avigan[®] (favipiravir)**, **Kaletra[®] (lopinavir/ritonavir)**, **Veklury[®] (remdesivir)**. (Initiated on Feb. 22nd)

- Started administration to patients who needs in several medical facilities
- Expanding medical facilities participating, while monitoring the safety

* Observational study: Series of studies analyzing data on clinical outcome of a treatment with an off-label application of a medication. Will go through Ethical Committees of medical facilities, and the consent of the patients will be obtained.

2. Global Joint Investigator Initiated Clinical Trial: **Veklury[®] (remdesivir)** (Initiated on Mar. 23rd)

- Carried out investigator initiated study of remdesivir
- Remdesivir was approved on May 7th.

3. Specified Clinical Trial: **Alvesco[®] (ciclesonid)** (initiated on Mar. 27th)

- Started specified clinical trials of ciclesonid for mild to asymptomatic patients

* Specified clinical trials: Clinical trials “of non-approved or off-label use of medications” or “which are funded by the manufacturer of the item to be studied,” where the case above fall in to the former type.

“Clinical Development of Favipiravir” Research Group
(AMED commission research expenses)(Y. Yuzawa: Hospital Director, Fujita Health University Hospital)

1. Specified Clinical Trial: **Avigan[®] (favipiravir)** (initiated on Mar. 2nd)

- Started specified clinical trials of favipiravir for mild to asymptomatic patients

2. Observational Studies: **Alvesco[®] (ciclesonid)** (Initiated on Mar. 16th), **Futhan[®] (nafamostat)** (Initiated on Apr. 1st)

- Running observational study of ciclesonid and nafamostat, including the collection of the past records of use in medical facilities.