(As of February 2021)
11 things to know about COVID-19

Number of patients and pathogenicity of COVID-19

1. How many are confirmed as COVID-19 positive in Japan?
2. Among those confirmed as COVID-19 positive, how many are in a critical state or have died?
3. Among those confirmed as COVID-19 positive, what are the risk factors for increased severity or death?
4. Are there more COVID-19 cases in Japan than other countries?

Infectivity of COVID-19

5. How long is a COVID-19 positive individual infectious towards others?
6. Among those confirmed as COVID-19 positive, how many infect others?
7. What precautions should we take to prevent the spread of COVID-19?

Testing and Treatment for COVID-19

8. What tests are used to diagnose COVID-19?
9. How is COVID-19 treated?
10. Is there a COVID-19 vaccine? When will it be available for the general public?

Variants of COVID-19

11. What is known about the COVID-19 variants?

Q How many are confirmed as COVID-19 positive in Japan so far?

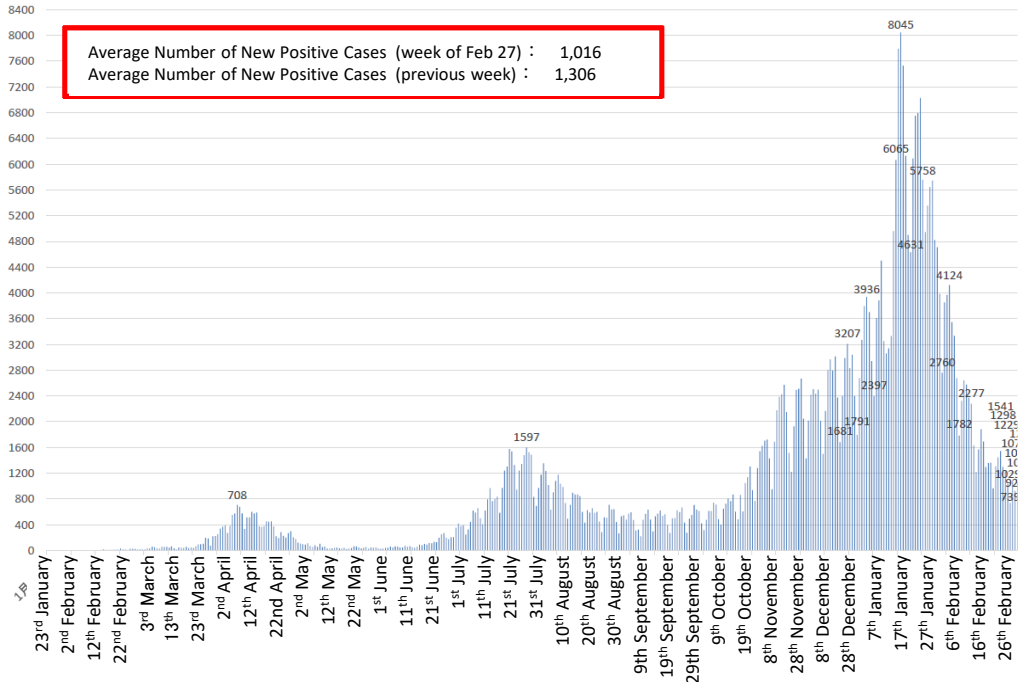
A To date, there have approximately been **431,740** COVID-19 positive cases in Japan, accounting for around **0.3%** of the total population. For more details and recent numbers please refer to the following link: https://www.mhlw.go.jp/stf/covid-19/kokunainohasseijoukyou.html

* Some people do not show symptoms even if they are infected and do not go to a medical institution, so this does not necessarily represent all COVID-19 positive cases.

* As of 23:59 Feb 28, 2021.

Number of confirmed positive cases in Japan

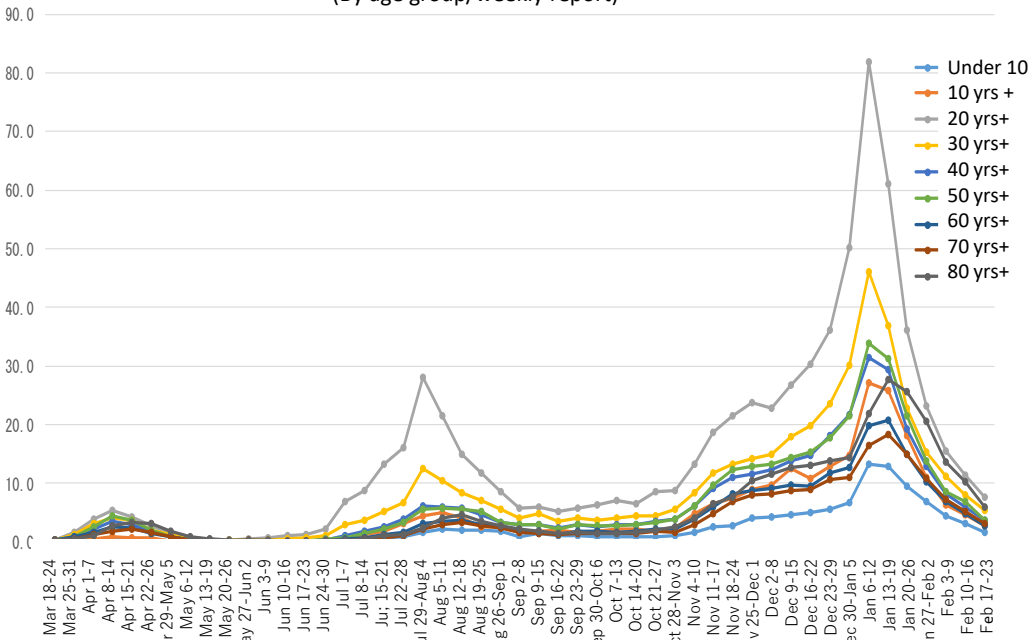
(Total number / report date) As of Feb 28, 2021



*1 If a prefecture made a report for multiple days at once, each reported number was included in the original date the were originally reported on. Duplicates are currently being calculated.
*2 Cases that were not reported until May 10th were calculated as positive cases on the days that they were reported.

Number of confirmed positive cases per 100,000 individuals

(By age group/weekly report)



Source: Created from materials published by the Ministry of Health, Labour and Welfare

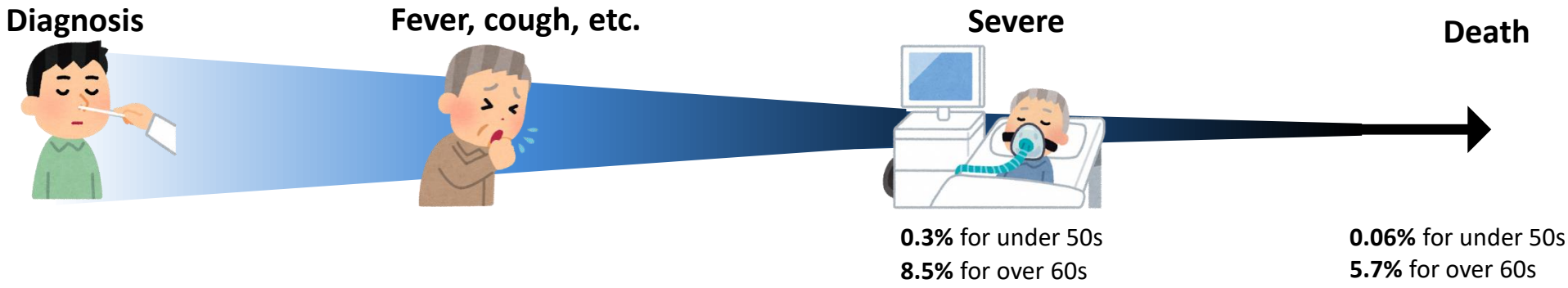
Q　Among those confirmed as COVID-19 positive, how many are in a critical state or have died?

A　Of those confirmed as COVID-19 positive, the numbers of the severe cases and deaths vary with age as **the older generation tends to have higher severity and mortality rates**, while the **younger generation tends to have lower rates**.

The overall severity and mortality rates are lower than before; the breakdown of confirmed cases after June is as follows:

- Cases with severe symptoms: approx. 1.6% (**0.3% for under 50 years of age, 8.5% over 60 years of age**)
- Death cases: approx. 1.0% (**0.06% for under 50 years of age, 5.7% for over 60 years of age**)

* The "percentage of people who become severe" is the rate of cases confirmed as COVID-19 positive (including asymptomatic cases) that have been treated in the intensive care unit or treated with a respirator or have died.



Severe Cases from COVID-19 (%)

Age / Month	0 -9	10 -19	20 -29	30 -39	40 -49	50 -59	60 -69	70 -79	80 -89	90-	計
Jun.–Aug.	0.09	0.00	0.03	0.09	0.54	1.47	3.85	8.40	14.50	16.64	1.62
Jan.–Apr.	0.69	0.90	0.80	1.52	3.43	6.40	15.25	26.20	34.72	36.24	9.80

Number of Deaths from COVID-19 (%)

Age / Month	0 -9	10 -19	20 -29	30 -39	40 -49	50 -59	60 -69	70 -79	80 -89	90-	計
Jun.–Aug.	0.00	0.00	0.01	0.01	0.10	0.29	1.24	4.65	12.00	16.09	0.96
Jan.–Apr.	0.00	0.00	0.00	0.36	0.61	1.18	5.49	17.05	30.72	34.50	5.62

Source: Created from the 11th Advisory Board Material (Material submitted by Professor Nishiura, Kyoto University) on October 22, 2020

Q Among those confirmed as COVID-19 positive, what are the risk factors for increased severity or death?

A Among those confirmed as COVID-19 positive, **the elderly and those with preexisting medical conditions are more likely to increase in severity**.

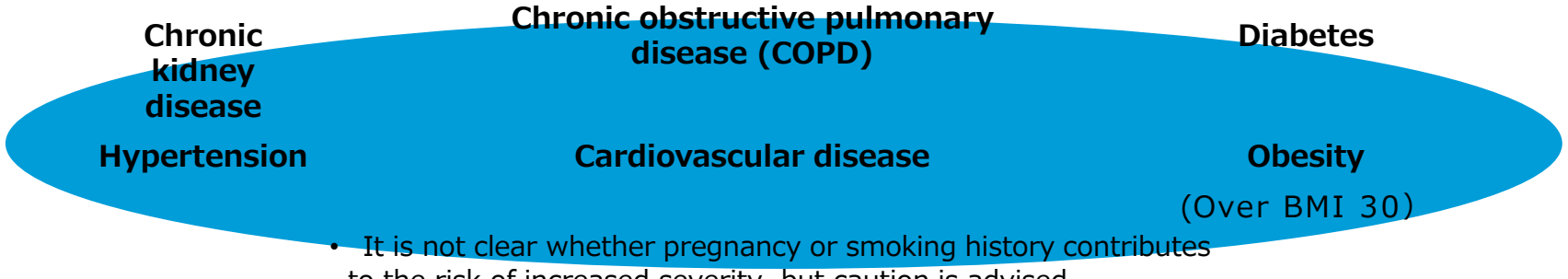
Underlying diseases that increase the risk of severity include**: Chronic obstructive pulmonary disease (COPD), Chronic kidney disease, Diabetes, Hypertension, Cardiovascular disease, and Obesity**.

In addition, although it is not clear whether pregnant women and smoking history are likely to become severe, it is important to be cautious.

Age	Under Teens	Teens	20s	30s	40s	50s	60s	70s	80s	90s and Over
Severity rate	0.5 times	0.2 times	0.3 times	Baseline	4 times	10 times	25 times	47 times	71 times	78 times

* The "severity rate" is the rate of COVID-19 positive individuals (including asymptomatic cases) that have been treated in the intensive care unit or treated with a respirator or have died.

Underlying diseases at risk of increased severity



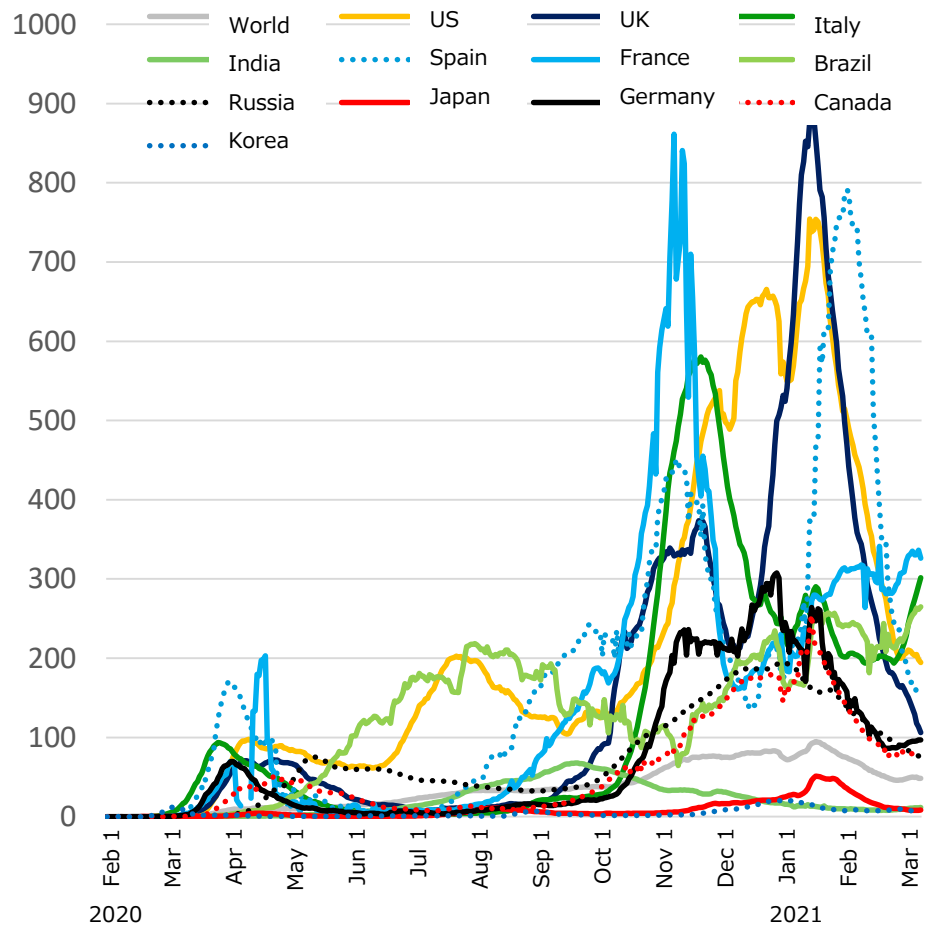
- It is not clear whether pregnancy or smoking history contributes to the risk of increased severity, but caution is advised.

Source: Prepared by the Ministry of Health, Labor and Welfare based on the data provided by Professor Nishiura of Kyoto University and the guideline for medical treatment of new coronavirus infection (COVID-19), Edition 4.12

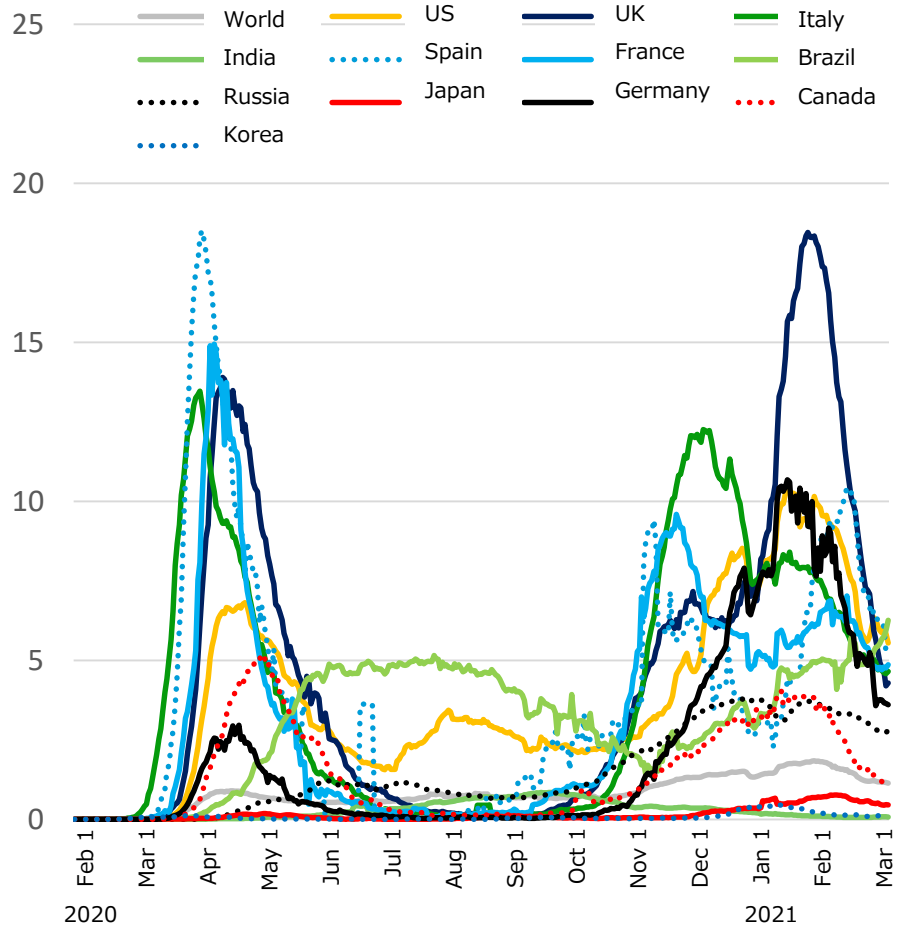
Q Are there more COVID-19 cases in Japan than other countries?

A The numbers of confirmed cases and deaths in Japan per population have been lower than the world's average, and countries with the highest number of confirmed cases.

Number of confirmed cases per million



Number of deaths per million



Source: Our World in Data (as of March 4th, 2021)

Q How long is a COVID-19 positive individual infectious towards others?

A: A person infected with COVID-19 can start infecting others from 2 days before the onset of symptoms, until approximately **7 to 10 days** after the onset of symptoms.

In addition, viral shedding is particularly high before and after the onset of symptoms.

Thus, those confirmed as COVID-19 positive must work hard to prevent transmission by refraining from going out for unnecessary reasons, **regardless of the presence or lack thereof symptoms**.

* From edition 4.1 of the medical guide for COVID-19

Q Among those confirmed as COVID-19 positive, how many infect others?

A: **Less than 20% of those confirmed as COVID-19 positive infect others**, meaning the majority overall are not infecting others. Therefore, **if we can prevent COVID-19 positive individuals from infecting others such as by not wearing proper protection (e.g. masks) in the Three-C environments** (closed spaces, crowded places, close-contact settings), the spread of COVID-19 can be suppressed.
If you are an individual that has been confirmed as COVID-19 positive, it is important to act in an appropriate manner so that you can prevent others from becoming infected; please refrain from going outdoors for unnecessary and non-urgent reasons when feeling ill, and always wear a mask when interacting with others.

* It is known that wearing a mask reduces the amount of viral load inhaled when in close proximity to those already infected with COVID-19. (chances of becoming infected is reduced by 60-80% when an infected person is wearing a cloth mask, and reduced 20-40% when a non-infected person is wearing it in proximity to an infected individual). Ueki, H., Furusawa, Y., Iwatsuki-Horimoto, K., Imai, M., Kabata, H., Nishi

Q What precautions should we take to prevent the spread of COVID-19?

A: The routes of transmission are generally through droplets or through direct contact with a COVID-19 positive individual. Therefore the risk of infection increases in a 3Cs (closed spaces、crowded places、close-contact settings) environment.

Situations such as social gatherings, eating and drinking with a large group of people or remaining in an eating or drinking area (e.g. restaurant setting) for a long time, having conversations without masks, living in a small communal area, and changing seating arrangements, may increase the risk of infection and should be avoided.

"Five scenarios" with a higher risk of infection

Scene① Eating and drinking at social gatherings

- The effects of alcohol uplifts the atmosphere, reducing one's attention span and it decreases one's hearing ability, leading to people becoming louder as they begin to raise their voices.
- When a large number of people stay for a long time, especially in smaller spaces separated by dividers (thin walls, Japanese sliding doors, etc.), the risk of infection increases.
- In addition, sharing glass and chopsticks increases the risk of infection.

Scene② Eating and drinking with a large group of people for a long time

- Eating and drinking for a long time, eating and drinking with entertainment, and late-night pub/bar-crawl increase the risk of infection compared to short meals.
- When eating and drinking with a large number of people, for example, 5 or more people, the risk of infection increases as people start talking out loudly, causing the droplets to fly around, creating a higher chance of an infection.

Scene③ Socializing without a mask

- Increased risk of infection by droplet infection or microdroplet infection by talking at close range without a mask
- An example of an infection that has occurred in a social event without a mask has been confirmed at events such as daytime karaoke.
- It is important to be cautious even in the car when getting on a car or bus

Scene④ Communal living space in a small area

- Living in a small communal space increases the risk of infection because the closed space is shared for a long time.
- Cases of suspected infection in common share spaces such as dormitory rooms and toilets have been reported.

Scene⑤ Moving Locations

- When moving locations, for example, when you are on a break at work, your risk of infection may increase due to relaxation and changes in the environment
- It has been believed that infections occur in break rooms, smoking areas, and changing rooms.

Q What tests are used to diagnose COVID-19?

A Tests for diagnosing COVID-19 include PCR tests, antigen quantitative tests, antigen qualitative tests, and etc. Each of these tests detect if a virus is present in the subject's body and/or is infected with the virus.

With the development of new test methods, it is now possible to use saliva and nasal swabs as well as nasopharyngeal swabs, depending on the type of test or the type of symptoms the individual is experiencing.

The antibody test confirms whether the individual has been infected with COVID-19 in the past, thus it does not confirm whether the individual currently has COVID-19 or not.

Person to be inspected		**PCR** test (including **LAMP**)			Antigen test (quantitative)			Antigen test (qualitative)		
		Nasopharynx	Nasal cavity	Saliva	Nasopharynx	Nasal cavity	Saliva	Nasopharynx	Nasal cavity	Saliva
People with symptoms	Within 9 days of onset	○	○	○	○	○	○	○ ※1	○ ※1	×
	After 10 days from onset	○	○	×	○	○	×	△ ※2	△ ※2	×
People without symptoms		○	×	○	○	×	○	× ※3	× ※3	×

* 1 Used within 2 to 9 days after onset * 2 If negative, perform nasopharyngeal PCR test, etc. *3 Although it is not recommended as a definitive diagnosis, it can be used as a screening tool for a wide range of tests in medical institutions and elderly care facilities in areas where infection is spreading, provided that infection control measures are continued even if the results are negative.

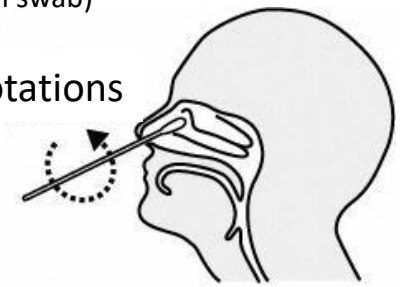
Example of sample collection

(For antigen qualitative test, nasopharyngeal swab and nasal swab)

Insert a cotton swab through the nose and rub the nasopharynx several times
(Collected by medical staff)

Nasopharyngeal swab collection

5 rotations



Insert a cotton swab about 2 cm from the nose, rotate it 5 times, and let it stand for about 5 seconds.
(Self-collection is possible)

Nasopharyngeal swab collection

The figure is provided by Denka Co., Ltd.

Q How do you treat COVID-19?

A: For mild cases, typically there is a follow-up checkup and treatment for symptoms such as antipyretics (e.g. pain killers) when necessary, as mild cases tend to subside.

If respiratory failure is observed, oxygen administration, steroids (a drug that suppresses inflammation), and antivirals* 1 may be administered. If symptoms do not improve, intensive care with a respirator, etc. may be performed * 2.

As a result of these treatments, the death rate of those hospitalized for COVID-19 has decreased.

If you experience symptoms such as a fever or cough, first consult your local medical institution.

* 1 Remdesivir is an antiviral drug approved for the treatment of COVID-19 in Japan. (As of February 28, 2021)
* 2 The percentage of those who require intensive care or die is about 1.6% (0.3% for those in their 50s or younger, 8.5% for those in their 60s or older).

From Edition 4.1 of the medical guide for COVID-19

Status of drug treatment and mortality rate for hospitalized cases (COVID-19 registry research analysis results * 4)

○ Cases hospitalized after June tend to have the following tendencies compared to cases hospitalized before June.

- Increased administration rate of remdesivir and steroids, which are indicated for COVID-19, especially in cases of severe illness at the time of hospitalization.
- The rate of death after hospitalization decreased in all age groups in both mild / moderate and severe cases at hospitalization.

Mild / moderate cases on hospitalization

		Cases hospitalized before May 31	Cases hospitalized after Jun 1–dec 31
Status of drug treatment	Remdesivir※6	**0.4%**	**13.9%**
	steroid drug (Expect for Ciclesonide)	**6.9%**	**40.3%**
Percentage of deaths after hospitalization (by age)	0-29	**0.0%**	**0.0%**
	30-49	**0.2%**	**0.1%**
	50-69	**1.3%**	**0.3%**
	70-	**9.7%**	**5.7%**
	All ages	**2.4%**	**1.3%**

Severe cases on hospitalization ※5

		Cases hospitalized before May 31	Cases hospitalized after Jun 1–dec 31
Status of drug treatment	Remdesivir	**1.3%**	**39.2%**
	steroid drug (Expect for Ciclesonide)	**26.0%**	**74.1%**
Percentage of deaths after hospitalization (by age)	0-29	**1.9%**	**0.0%**
	30-49	**1.3%**	**0.6%**
	50-69	**9.1%**	**3.7%**
	70-	**30.0%**	**17.3%**
	All ages	**17.1%**	**9.8%**

* 4 In the welfare and labor science research "Registry research on COVID-19" (Principal Investigator: Takao Oomagari), we analyzed inpatient cases registered in the registry by September 4.
* 5 If any of oxygen administration, ventilator management, SpO2 94% or less, and respiratory rate 24 times / minute or more is applicable at the time of admission, it is classified as severe at admission.

Q　Is there a COVID-19 vaccine? When will it be available for the general public?

○**About the characteristics of the vaccine**

This vaccine was developed by Pfizer Inc. and is a type of messenger RNA vaccine.
Normally, two doses are administered three weeks apart.

○**Efficacy of the vaccine**

The vaccine is effective in preventing COVID-19 infections.

For those that have been vaccinated, fewer develop COVID-19 infections (fever and cough) in comparison to those who have not been vaccinated. The effectiveness of the vaccine in preventing the onset of the disease has been reported to be 95%.

○**Safety of the vaccine**

After vaccination, you may experience pain in the injected area, fatigue, headache, muscle and joint pain, chills, diarrhea, and fever. The majority of these symptoms dissipate within a few days.

Rare cases of anaphylaxis (an acute allergic reaction) have been reported overseas. If anaphylaxis does occur, immediate treatment should be given at the vaccination site or medical institution.

○**Timing of the vaccination**

The vaccination period is scheduled to start on February 17, 2021 and end on February 30, 2022.

Medical personnel and healthcare professionals will first be vaccinated. After this, vaccinations are expected to be given to the elderly and those with underlying conditions. The vaccination of the elderly is expected to start on April 12 in some municipalities. Initially, the number of cities, towns, and villages where the vaccination will be conducted and the number of people to be vaccinated will be limited, but will gradually expand.

Q What is known about the COVID-19 variants?

A There have been reports that variants may be more infectious than previously estimated.

As of late, there is no evidence that COVID-19 variants increase severity or make the vaccines less effective. There is also no evidence suggesting that the variants affect the infectivity of the disease in children. Both areas are currently being investigated throughout the world.

In Japan, several clusters of variant strains have been reported, and cases with no connections to overseas countries (sporadic cases) continue to be confirmed. However, **there are no widespread outbreaks throughout the nation**.

The Ministry of Health, Labor and Welfare (MHLW) has been analyzing the genomes from confirmed COVID-19 cases in Japan to confirm the spread of the variant nationwide. We are also exchanging information with the World Health Organization (WHO) and experts to conduct risk analysis and strengthen the domestic surveillance system to take flexible measures to prevent infection.

Even with these variant strains, **measures such as avoiding the “three C’s” (and "Five scenarios" with a higher risk of infection), wearing masks, and washing hands remain as effective as ever**, so we ask for the cooperation of all citizens in taking measures to prevent infection.

* COVID-19 is an RNA virus composed of about 30,000 bases. Studies have shown that these bases usually mutate at a rate of about one base every two weeks. Variants of the bases rarely change the strength of the infection or the symptoms, but in rare cases, it can cause significant changes. It is necessary to understand the variants’ infection, genetic, and clinical status.