Comparison of the 3rd, 5th, 6th, and 7th Waves (Summary)

- **For comparative purposes, each surge in new cases was assumed to be a wave that occurred over a period of three months[1]: the month when the seven-day average reached its peak and the one month before and after that month.**
- **Here, the third, fifth, sixth and seventh waves, which were comparatively large in scale, are compared. (Summary is based on data as of October 21)**

Period		New cases[2]	Hospitalized patients[3]	Severe patients[4]	Deaths[5]
Third wave Dec. 1, 2020 – Feb. 28, 2021	Cumulative	68,477	220,477	8,980(678)	1,051
	Max.	2,459 [1/7]	3,427 [1/12]	160 [1/20]	—
Fifth wave July 1 – Sept. 30, 2021	Cumulative	202,262	274,385	14,866(1,414)	837
	Max.	5,807 [8/13]	4,351 [9/4]	297 [8/28]	—
Sixth wave January 1 – March 31, 2022	Cumulative	843,165	252,641	3,749(399)	1,203
	Max.	20,642 [2/5]	4,273 [2/19]	87 [2/19.20]	—
Seventh wave July 1 – Sept. 30, 2022	Cumulative	1,479,005	286,738	2,348(338)	1,342
	Max.	39,534 [7/28]	4,459 [8/20]	43 [8/13]	—
(Apr. 1 – June 30, 2022)	Cumulative	339,866	113,369	860(81)	200
	Max.	8,584 [4/7]	2,027 [4/14]	32 [4/2]	—

1. Figures are derived for the Third wave: Dec. 1, 2020 – Feb. 28, 2021 (89 days); Fifth wave: July 1 – Sept. 30, 2021 (92 days); Sixth wave: January 1 – March 31, 2022 (90 days); Seventh wave: July 1 – Sept. 30, 2022 (92 days). This material is based on data as of October 21, 2022.
2. The figures for new cases exclude positive cases from samples sent in from outside Tokyo and those registered as positive cases at centers, etc., of other prefectures. Following changes in the reporting system, from September 27, 2022, only figures for new COVID-19 patients by age that were reported by medical institutions and the Tokyo COVID Patients Registration Center are compiled in the total.
3. The cumulative total of hospitalized patients is the sum of the daily numbers of hospitalized patients.
4. The cumulative total of severe patients is the sum of daily numbers of severe patients. The figure in parentheses () is the cumulative total of new severe patients.
5. The number of deaths is derived for each period based on the date of death. The figures may be retroactively revised.

Features of the Seventh Wave (Comparison with Other Waves)

■ **Comparison with other waves regarding changes in new and severe patients**

- Infections spread in the seventh wave at a scale surpassing previous waves.
- On the other hand, the cumulative total of severe patients was lower than that of the third, fifth and sixth waves, and in comparisons of new COVID-19 patients as well, the number of severe patients tended to be lower.

■ **Comparison with other waves for number of new cases by age (seven-day average)**

- Similar to previous waves, those in their 20s had the highest curve, followed by the 30s and 40s.

■ **Comparison with other waves for number of hospitalized patients by age**

- The number of hospitalized patients is nearly the same as for the fifth and sixth waves.
- Among those hospitalized, the percentage of patients in their 60s or older increased during the sixth wave, and this ratio increased even more during the seventh wave. There was also a slight increase in the percentage of patients under 10 years old who were hospitalized.

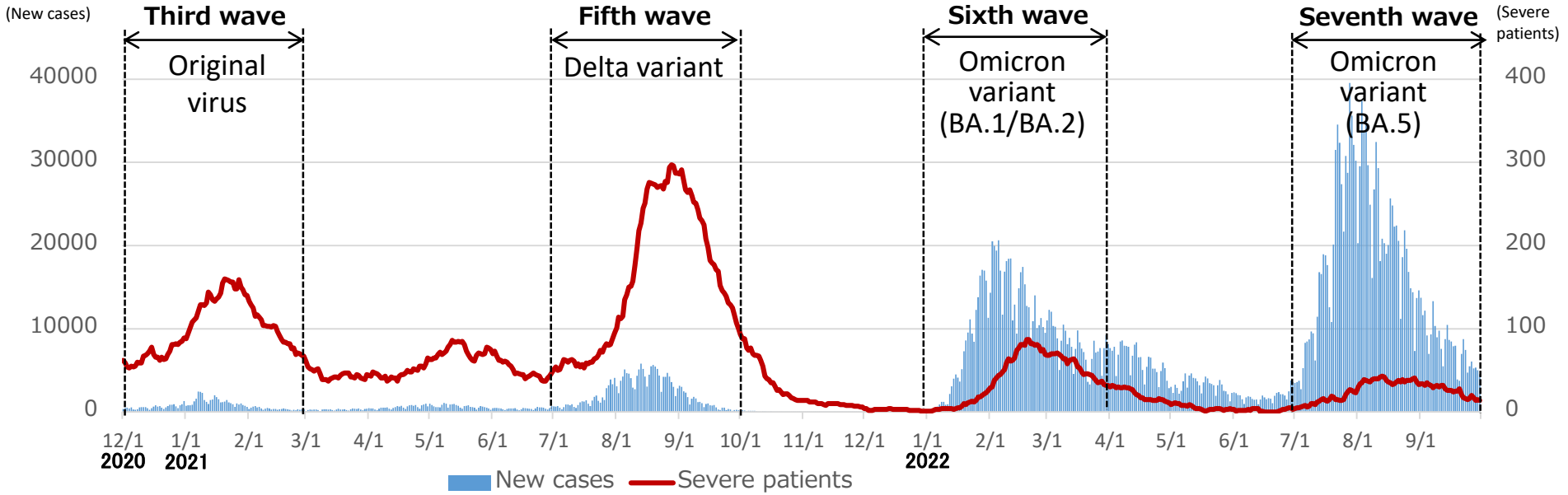
■ **Comparison of deaths in the third, fifth, sixth, and seventh waves**

- The mortality rate was low compared to previous waves.
- In the seventh wave, about 30 percent of the deaths were due to causes other than COVID.

■ **Comparison of multiple COVID cases arising from the same infection source**

- The number of such outbreaks and confirmed cases reported by public health centers in Tokyo had reduced slightly from the sixth wave.
- In medical institutions, the number of reported outbreaks and the average number of confirmed cases per outbreak was higher than in previous waves.

Changes in Number of New Cases and Severe Patients, and Comparison of Waves



- Infections surged during the summer and winter seasons. The size of the waves was on an increasing trend, and the seventh wave of infections was of a greater scale than previous waves. On the other hand, the number of severe patients has been on a decreasing trend since the sixth wave.

■ New cases by age group [unit: people (% is percentage of total)]

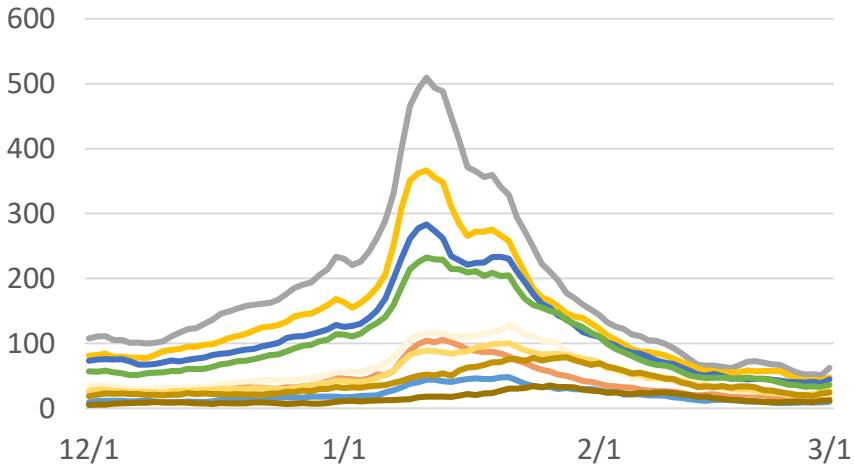
	Under 20		20s		30s		40s		50s	
3rd wave	5,640	8.2%	16,351	23.9%	12,483	18.2%	10,322	15.1%	9,097	13.3%
5th wave	30,338	15.0%	62,199	30.8%	41,399	20.5%	32,593	16.1%	22,603	11.2%
6th wave	241,909	28.7%	154,876	18.4%	144,861	17.2%	137,468	16.3%	78,168	9.3%
7th wave	318,904	21.6%	274,373	18.6%	254,042	17.2%	249,665	16.9%	187,467	12.7%
	60s		70s		80s		90s +		Unknown	**Total**
3rd wave	5,114	7.5%	4,397	6.4%	3,631	5.3%	1,441	2.0%	1	**68,477**
5th wave	6,804	3.4%	3,513	1.7%	2,150	1.1%	660	0.3%	3	**202,262**
6th wave	36,379	4.3%	24,823	2.9%	17,260	2.0%	7,311	0.8%	110	**843,165**
7th wave	85,695	5.8%	57,134	3.9%	36,949	2.5%	14,436	0.9%	340	**1,479,005**

* The figures for new cases exclude positive cases from samples sent in from outside Tokyo and those registered as positive cases at centers, etc., of other prefectures. Following changes in the reporting system, from September 27, 2022, only figures for new COVID-19 patients by age that were reported by medical institutions and the Tokyo COVID Patients Registration Center are compiled in the total.

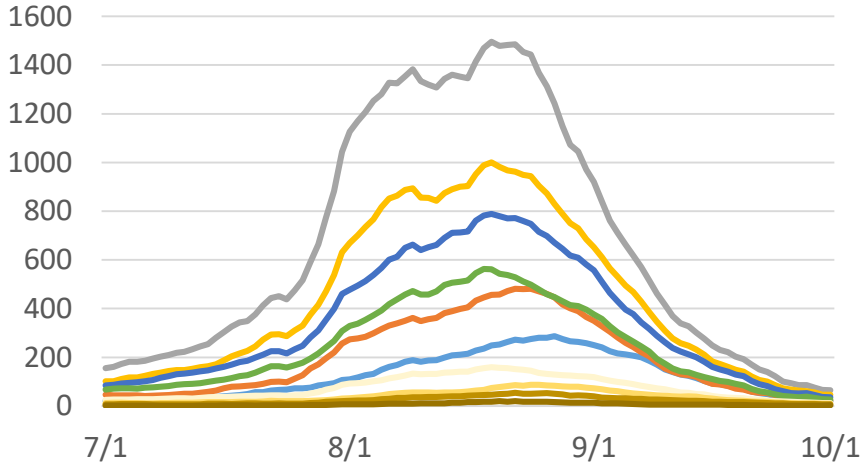
* Among hospitalized patients, severe patients are those requiring respiratory support, including ECMO. The line graph indicates the daily change in number of severe patients. (This is not the number of new severe patients.)

Number of New Cases by Age: Comparison of Waves (7-day average)

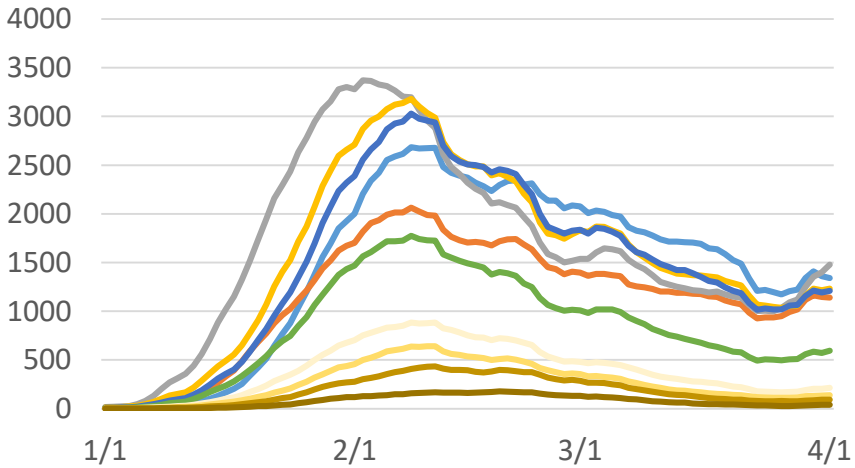
■ Third wave (Dec. 1, 2020 – Feb. 28, 2021)



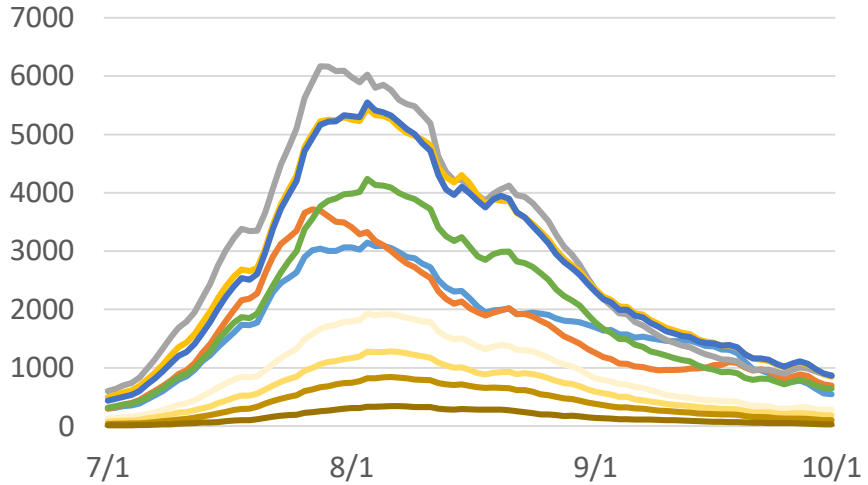
■ Fifth wave (July 1 – Sept. 30, 2021)

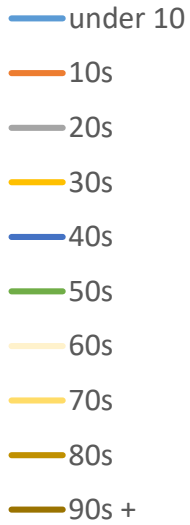


■ Sixth wave (January 1 – March 31, 2022)



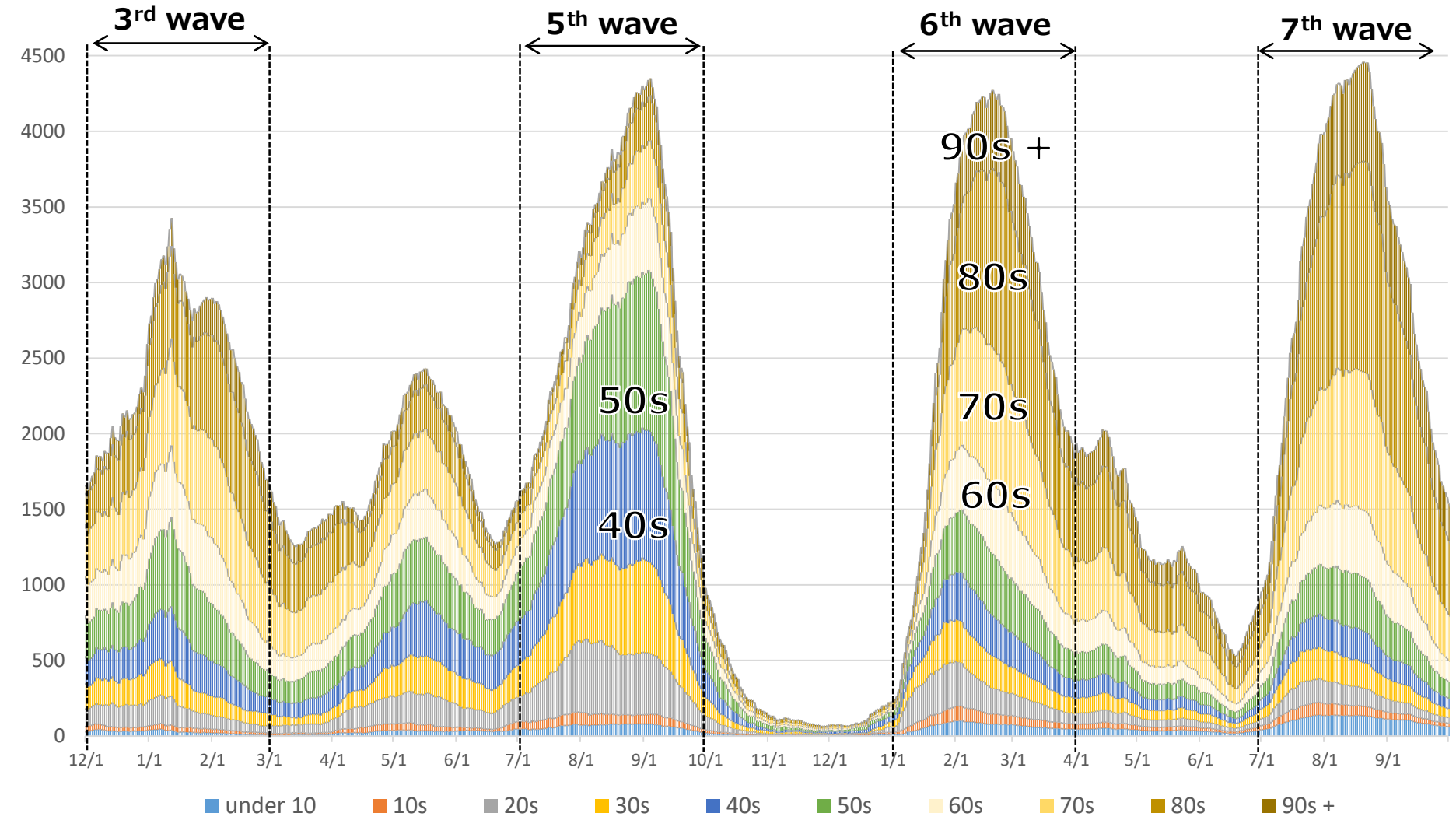
■ Seventh wave (July 1 – Sept. 30, 2022)





- All waves showed a higher tendency for new cases in their 20s, 30s, and 40s.
- The curve has risen sharply since the sixth wave.
- Since the sixth wave, new cases under the age of 20 have been increasing.

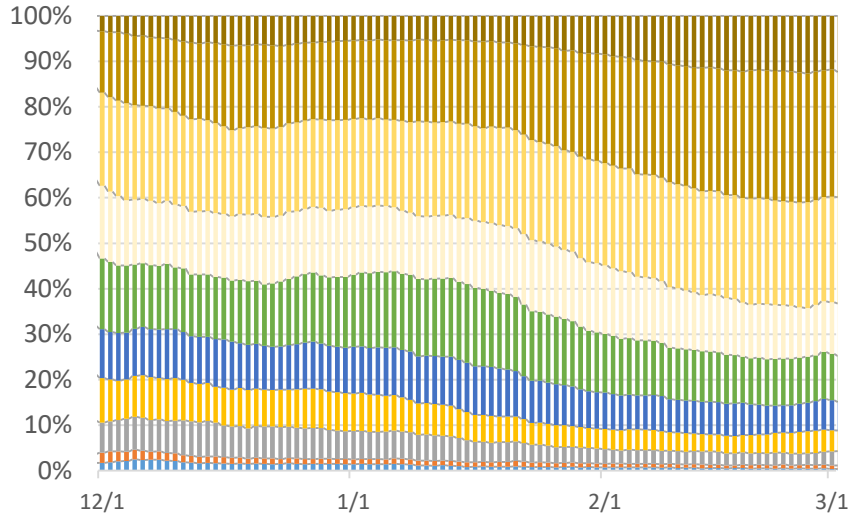
Number of Hospitalized Patients by Age Group: Comparison of Waves (1)



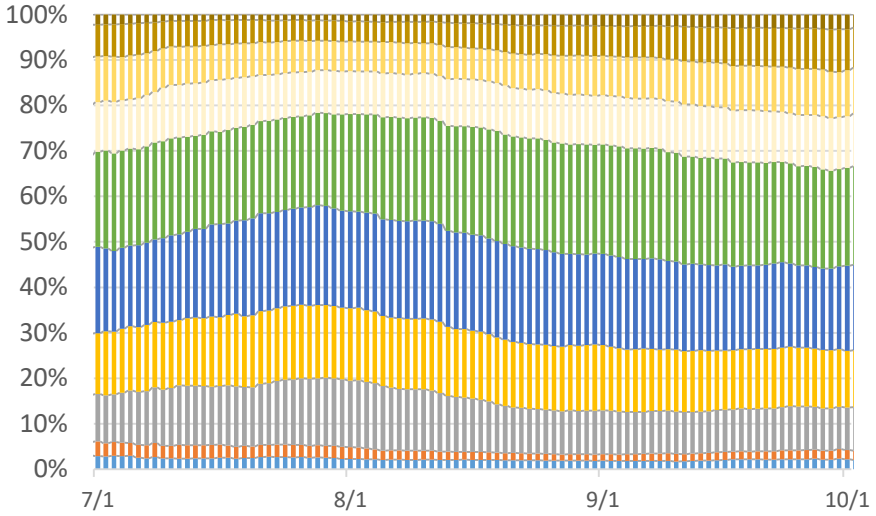
- The number of hospitalized patients has been about the same since the fifth wave, but the percentage of patients in their 60s and older has increased since the sixth wave. This percentage increased even more in the seventh wave.
- In the seventh wave, the percentage of those in their 80s and older was particularly high at about 50%. A slight increase was also seen in those under 10.

Number of Hospitalized Patients by Age Group: Comparison of Waves (2)

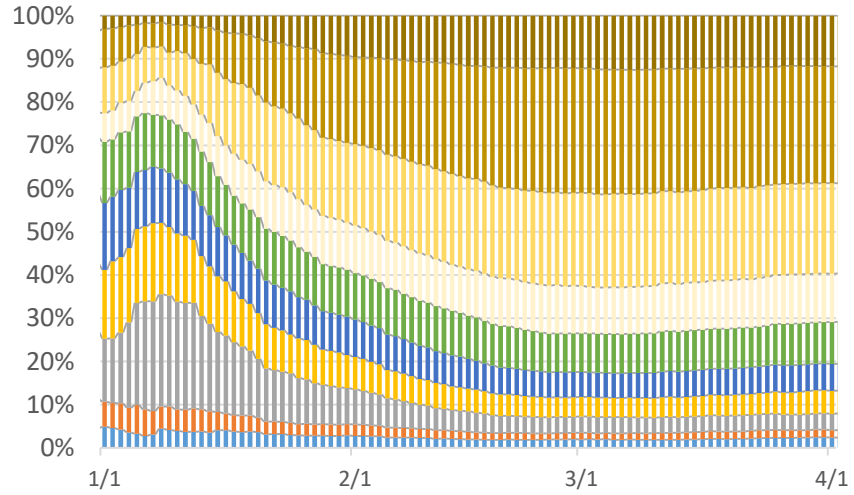
■ Third wave (Dec. 1, 2020 – Feb. 28, 2021)



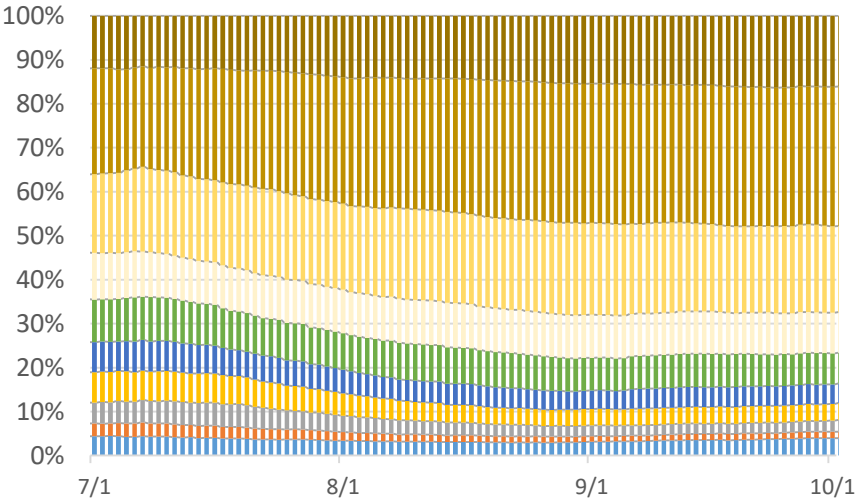
■ Fifth wave (July 1 – Sept. 30, 2021)

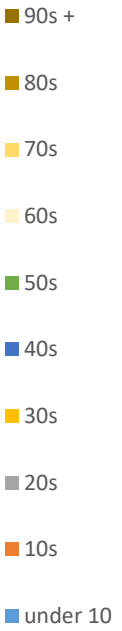


■ Sixth wave (January 1 – March 31, 2022)



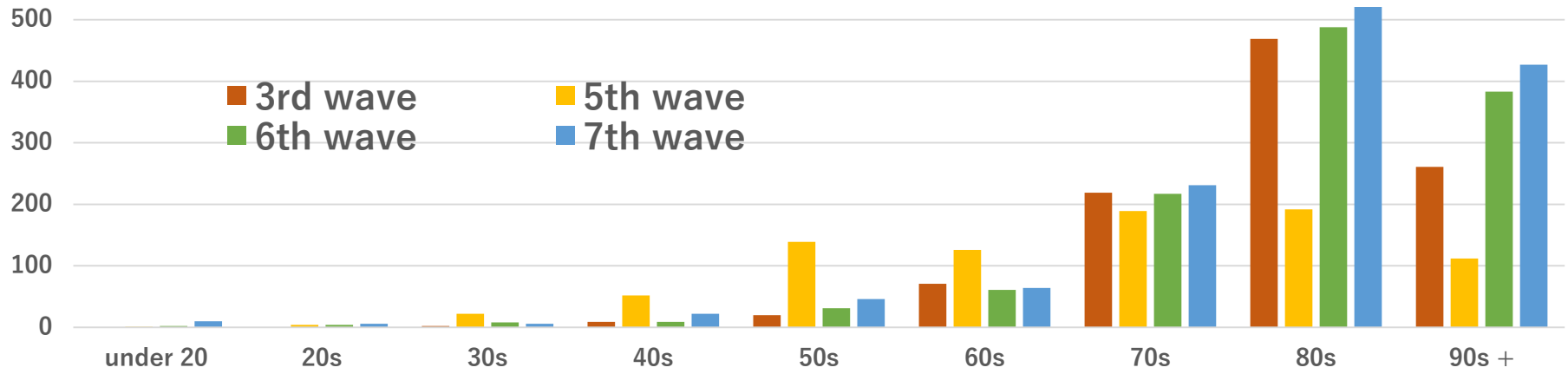
■ Seventh wave (July 1 – Sept. 30, 2022)





Comparison of Deaths in the 3rd, 5th, 6th and 7th Waves(1)

■ Comparison of deaths by age group



■ Comparison of mortality rate (number of deaths per new cases) by age group

***The figure to the right of % is the number of deaths.**

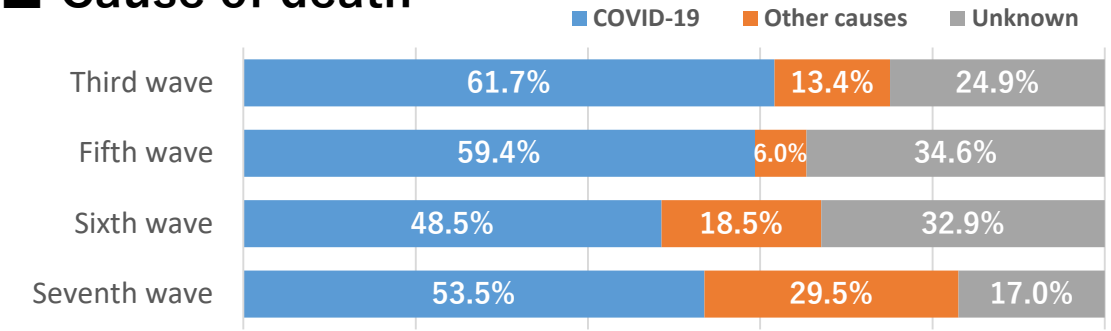
	under 20		20s		30s		40s		50s		60s		70s		80s		90s +		Total	
3rd wave	0.000%	0	0.000%	0	0.016%	2	0.087%	9	0.220%	20	1.388%	71	4.981%	219	12.917%	469	18.112%	261	**1.535%**	**1051**
5th wave	0.0033%	1	0.006%	4	0.053%	22	0.160%	52	0.615%	139	1.852%	126	5.380%	189	8.930%	192	16.970%	112	**0.414%**	**837**
6th wave	0.001%	2	0.003%	4	0.006%	8	0.007%	9	0.040%	31	0.168%	61	0.874%	217	2.827%	488	5.239%	383	**0.143%**	**1203**
7th wave	0.0031%	10	0.002%	6	0.002%	6	0.009%	22	0.025%	46	0.075%	64	0.404%	231	1.434%	530	2.958%	427	**0.091%**	**1342**

* Figures are derived from the date of death during the Third wave: Dec. 1, 2020 – Feb. 28, 2021 (89 days); Fifth wave: July 1 – Sept. 30, 2021 (92 days); Sixth wave: January 1 – March 31, 2022 (90 days); Seventh wave: July 1 – Sept. 30, 2022 (92 days).
* The mortality rate is an estimate derived by dividing the number of deaths over a certain period of time by the number of new cases over that same period of time.
* This material is based on data as of October 21, 2022.

- In the seventh wave, with the number of new cases surpassing that of previous waves, the number of deaths also increased, but the mortality rate (number of deaths per new cases) tended to be low.
- In the seventh wave, 10 patients under the age of 20 died, the highest ever.

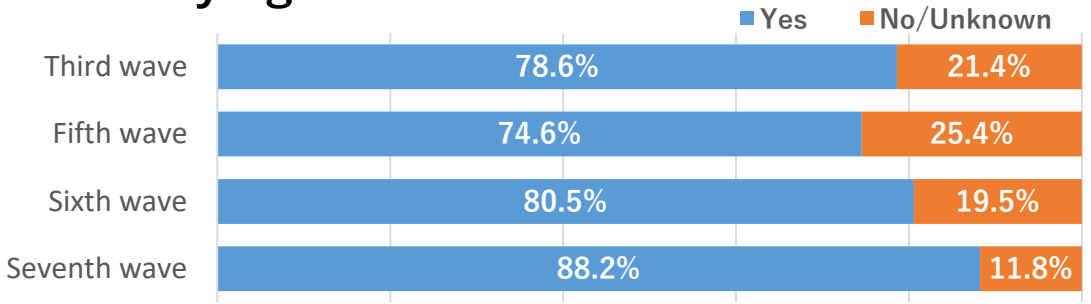
Comparison of Deaths in the 3rd, 5th, 6th and 7th Waves(2)

■ Cause of death



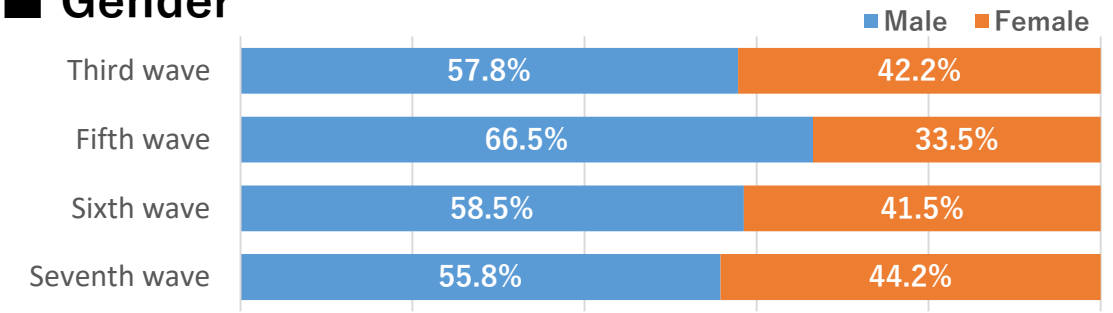
	COVID-19		Other causes		Unknown		Total
3rd wave	648	61.7%	141	13.4%	262	24.9%	1,050
5th wave	497	59.4%	50	6.0%	290	34.6%	837
6th wave	584	48.5%	223	18.5%	396	32.9%	1,203
7th wave	718	53.5%	396	29.5%	228	17.0%	1,342

■ Underlying conditions



	Yes		No/Unknown		Total
3rd wave	826	78.6%	225	21.4%	1,050
5th wave	624	74.6%	213	25.4%	837
6th wave	969	80.5%	234	19.5%	1,203
7th wave	1,184	88.2%	158	11.8%	1,342

■ Gender

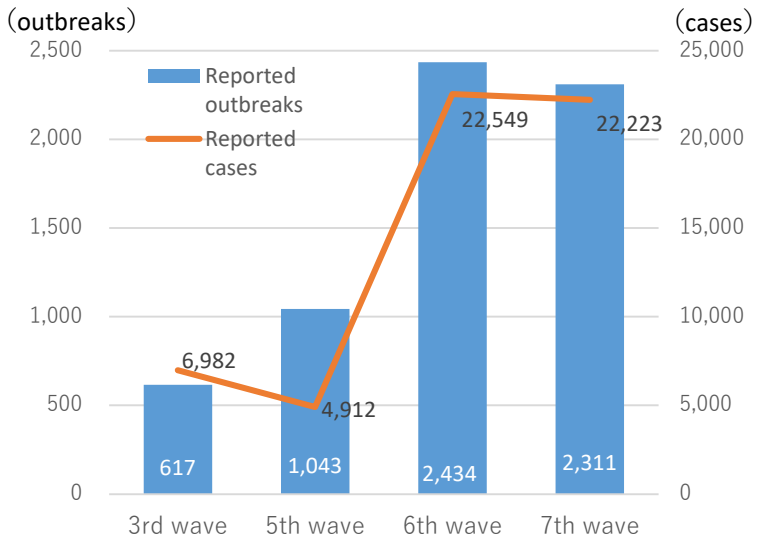


	Male		Female		Total
3rd wave	608	57.9%	443	42.2%	1,050
5th wave	557	66.5%	280	33.5%	837
6th wave	704	58.5%	499	41.5%	1,203
7th wave	749	55.8%	593	44.2%	1,342

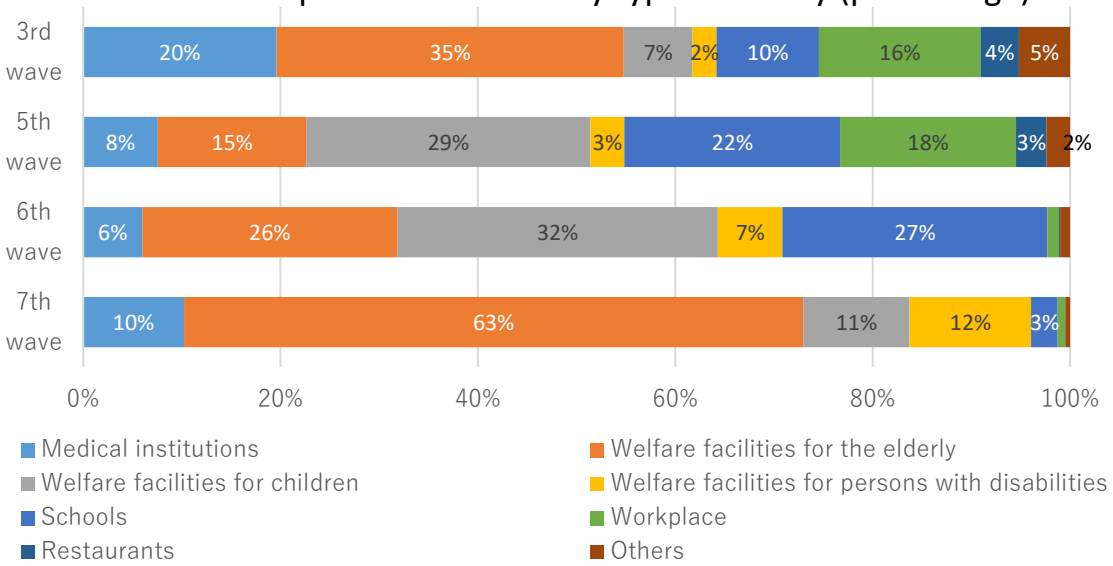
- During the seventh wave, about 30% of deaths were due to causes other than COVID-19.
- In all waves, the percentage of people with underlying conditions surpassed 70%, and this was the highest in the seventh wave at about 90%.

Multiple COVID-19 Cases Arising from the Same Infection Source (Comparison of Waves)

■ Reported number (outbreaks and cases)



■ Breakdown of reported outbreaks by type of facility (percentage)



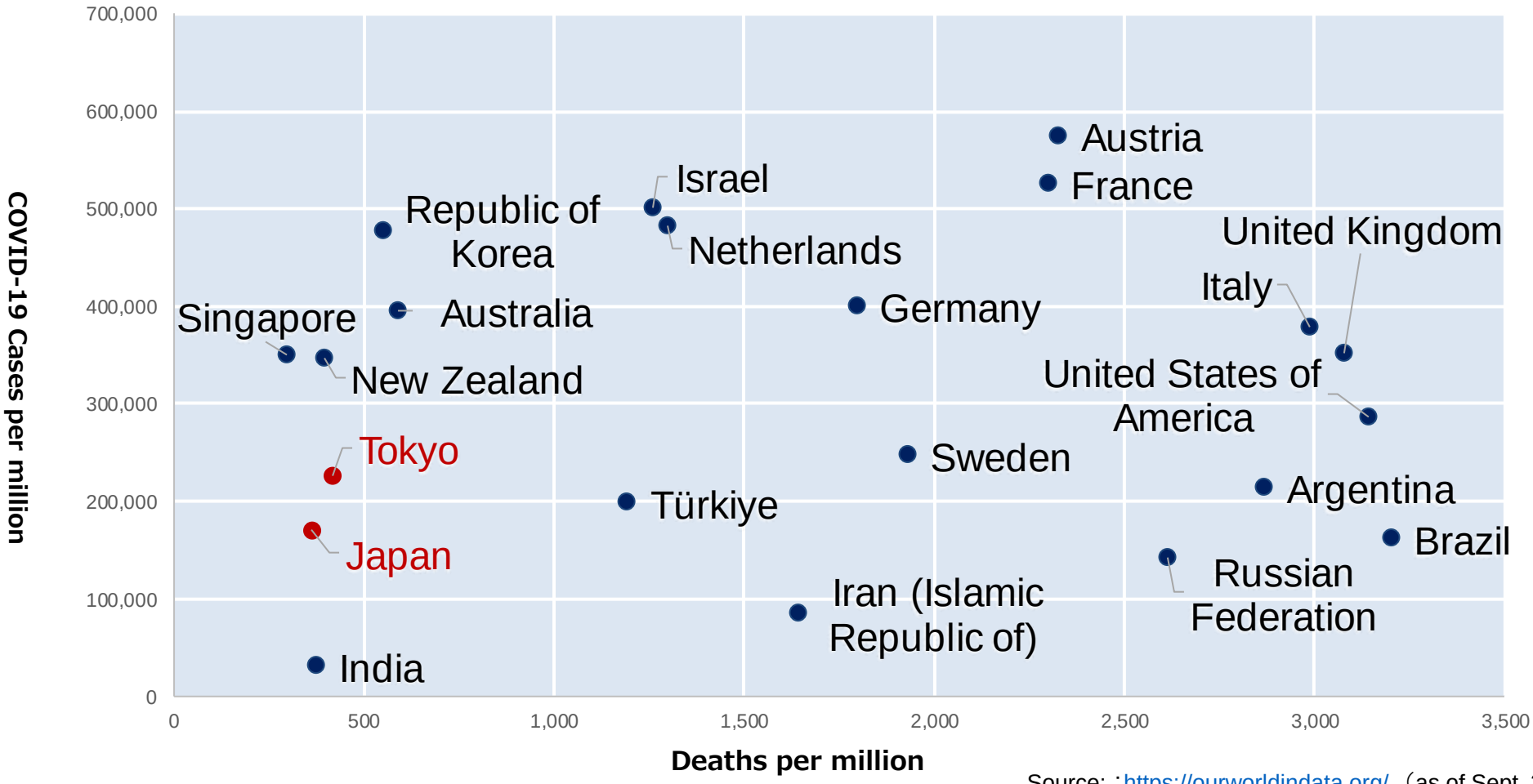
	Medical institutions			Welfare facilities for the elderly			Welfare facilities for children			Welfare facilities for persons with disabilities		
	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak
3rd wave	121	2,731	22.6	217	2,615	12.1	43	202	4.7	15	116	7.7
5th wave	79	333	4.2	157	620	3.9	300	1,469	4.9	36	256	7.1
6th wave	146	2,165	14.8	629	7,181	11.4	790	5,524	7.0	160	1,028	6.4
7th wave	236	4,339	18.4	1,450	13,241	9.1	249	1,966	7.9	285	1,786	6.3
	Schools			Workplace			Restaurants			その他		
	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak	Reported outbreaks	Reported cases	Average no. of cases/outbreak
3rd wave	64	340	5.3	101	547	5.4	24	148	6.2	32	283	8.8
5th wave	228	984	4.3	186	1,006	5.4	32	111	3.5	25	133	5.3
6th wave	653	6,201	9.5	29	211	7.3	3	12	4.0	24	227	9.5
7th wave	62	618	10.0	18	204	11.3	0	0	0	11	69	6.3

*Compiled from figures reported by Tokyo's public health centers. As these are tentative, they may be revised to confirmed figures at a later date.

- There was a slight reduction in the number of such outbreaks and cases in the seventh wave compared to the sixth wave.
- In the seventh wave, the composition ratio of welfare facilities for the elderly increased, but the average number of cases per outbreak decreased.
- The number of reported outbreaks and average number of cases per outbreak had increased at medical institutions.

The COVID-19 infection situation in Tokyo and Japan compared to other countries

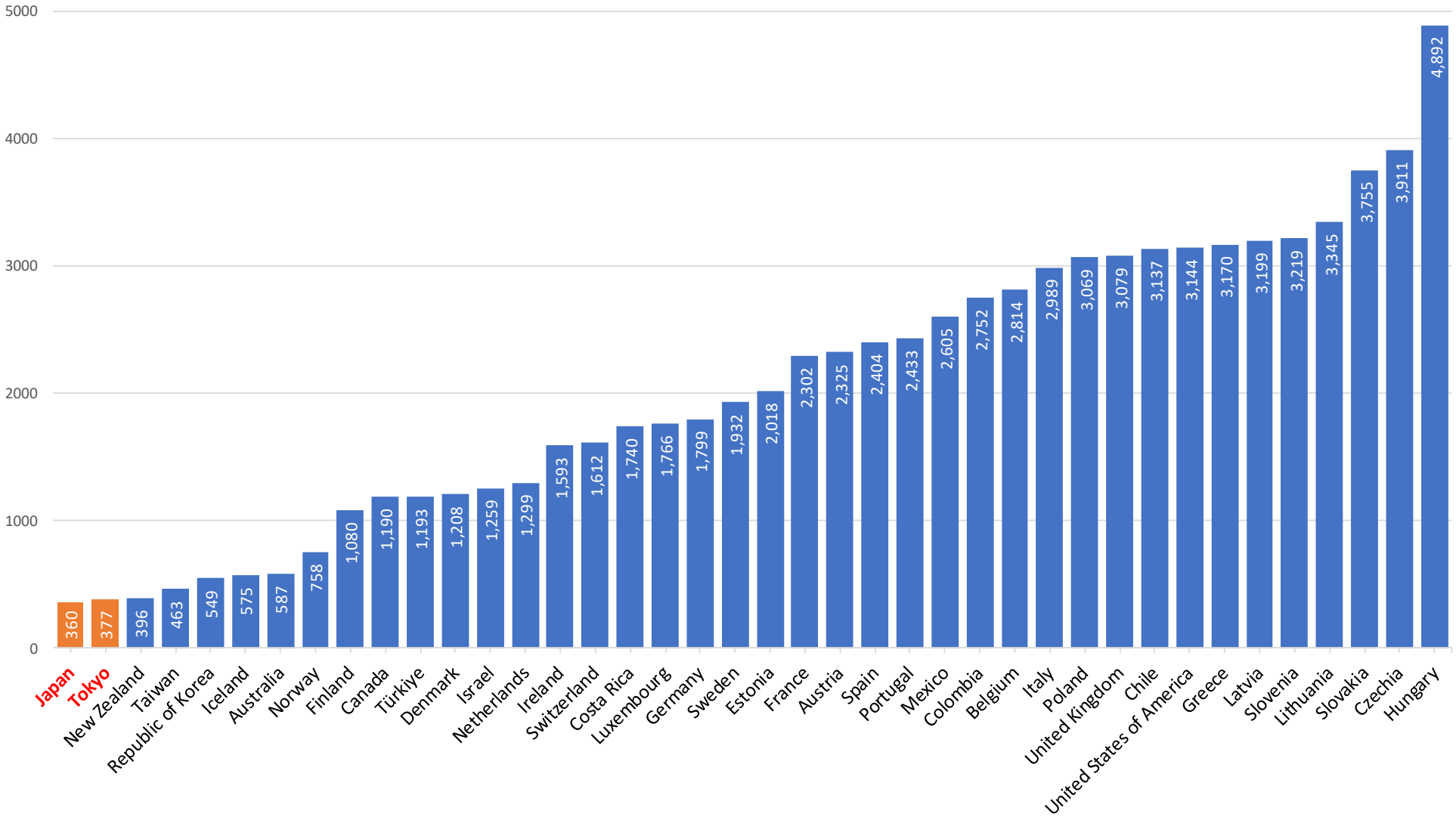
Infection situation by country (cumulative and estimated totals)



Source: ：https://ourworldindata.org/ （as of Sept. 30,2022 ）

Both cases and deaths in Tokyo and Japan remain low compared to the rest of the world.

Cumulative COVID-19 deaths per million (Comparison with OECD countries)



Source: ：https://ourworldindata.org/ （as of Sept. 30,2022 ）