How Television Reported COVID-19

Looking at the Correlation between Television and Social Media

[Part II] PCR Testing: "Agenda Setting" by Broadcasters and Reactions on Twitter

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Abstract

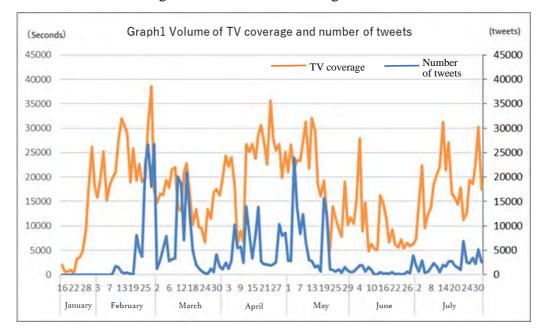
The first part of the series examined the correlations between TV coverage on COVID-19 and social media, which showed that television repeatedly reported stories related to PCR tests for an extended period of time, which received huge reactions from Twitter or other social media users. In this Part II, the authors assume that television's agenda-setting function was exercised for their reports on PCR tests and explore how it started, developed, and produced certain results by analyzing the content of broadcast programs and Twitter posts responding to them. As a result, the following dynamics of addenda setting was observed. In February, as the infection spread in Japan, TV reports focused on the cases where people wanting to take PCR tests could not get tested, which led to the setting of the agenda "expansion of PCR test needed," and Twitter users one after another posted the addenda. In March, however, quite a opposite "public opinion" against the expansion of PCR test emerged out of fear of overwhelming hospitals. From April through May, triggered by the declaration of a state of emergency, the "agenda" faded into the background. And from June through July when Japan was hit by the second wave, a new frame of agenda "tests for individuals without symptom needed" was set, which rekindled the debate.

Preface

One year has passed since new coronavirus infections, which originated in China, arrived in Japan and the first domestic case was confirmed. Part 1 of this report found that Japanese TV has spent much time covering this previously unknown virus, and social media was deeply involved in proliferating information.

Among various topics related to the virus, broadcasters have covered PCR tests for a long period of time and relatively constantly. The topic has also attracted sustained attention on Twitter and other social media platforms.

But why has media coverage of PCR tests, which is only one part of the medical system, continued for one year and stayed at certain levels? To find the answer, the author came up with a hypothesis: In the coronavirus pandemic, TV fulfilled the "agenda-setting" function,¹ which attracted attention as an important function of the mass media from the 1970s but was expected to decline in the era of multimedia and new media, while emerging social media responded to it and exercised influence. Correlations between TV coverage and the number of tweets, as shown in Graph 1, and the analyses in Part 1 of this report found factors that support this hypothesis. It was highly likely a thought-provoking experience for TV that needs to find a new way of representing publicness in the time when broadcasting and the Internet are fusing.



In defining mass media's agenda-setting function, Meiji University Professor Takeshita Toshio said, "In everyday reporting, the mass media selects a relatively small number of issues and topics, ranks them and presents them to determine the focus of people's attention and affects people's decision on what is important now" (Takeshita 2008, pp3). How did this function arise and develop in the context of coverage on PCR tests and what result did is produce?

In Part 2 of this report, videos of TV programs between February and July 2020 as well as meta data (provided by PTP Inc.) that cover a longer period are used to analyze remarks by people who appeared on TV. The analysis includes correlations between the remarks and responses on Twitter. Social media refers to such platforms as Twitter, Facebook, Instagram, LINE, TikTok and YouTube, but this report only handles responses on Twitter.

Nanasawa Kiyoshi wrote the main article. Higashiyama Kouta wrote Column 1 and 3, and Takahashi Kouichirou wrote Column 2. The main article focuses on TV programs. The columns provide detailed analyses on social media responses.

1. Setting the frame of the research

1-1. What is a PCR test?

PCR test is short for polymerase chain reaction test. The method is considered to be the most basic and reliable to detect people infected with the coronavirus. Samples taken by nasal or throat swabs, saliva or sputum are used to extract the virus RNA to see whether the person is infected or not. PCR test requires specialized equipment and a reagent, and it takes time until the result comes out. Experts have pointed out challenges involving the test, such as the risk of sample-takers being exposed to the virus through droplets released by test-takers.²

As a lesson from the 2009 outbreak of the new influenza, Japan planned to expand the PCR test scheme and boost capacities of medial institutions and public health centers, but the plan was not put into practice. With the cuts in medical expenditures, the nationwide

number of public health centers, which conduct tests for designated infectious diseases, has halved. The highly contagious coronavirus hit Japan whose test scheme has weakened. This historical and social background is public knowledge now. But this was not widely known in the initial phase of the outbreak.

As shown in Part 1, discussions on PCR tests in the inter-media society³ where TV and social media interact were sometimes disorganized. This is partly because Covid-19, the disease caused by the coronavirus, had been unknown to the humankind. Also, it took time for medical experts to find characteristics of the disease that hamper preventive measures and treatment. They include that infected people with mild symptoms could suddenly become seriously ill, and that many asymptomatic virus carriers can infect others. The mysterious nature of the virus confused researchers, healthcare professionals, politicians and journalists alike.

In such a complicated situation, what have TV programs and social media discussed and learned? Are there results worth noticing? That is the focus of Part 2 of this report.

1-2. Four programs chosen for analysis

The author selected four programs among the 25 programs analyzed in Part 1. Their content was transcribed. Audio analysis was also conducted by using the coding method. The four programs are:

(1) *Hatori Shinichi Morning Show (Morning Show)*, broadcast 8:00 – 9.55 from Monday to Friday on TV Asahi. Duration: 115 minutes

(2) *Joho Live Miyaneya* (*Miyaneya*), broadcast 13:55 – 15:50 from Monday to Friday on Nippon TV/Yomiuri TV. Duration: 115 minutes

(3) *N Studio*, broadcast 15:49 – 19:00 from Monday to Friday on TBS. Duration: 191 minutes

(4) *News Watch 9*, broadcast 21:00 – 22:00 on NHK. Duration: 60 minutesThe three following factors were taken into consideration when choosing the programs.

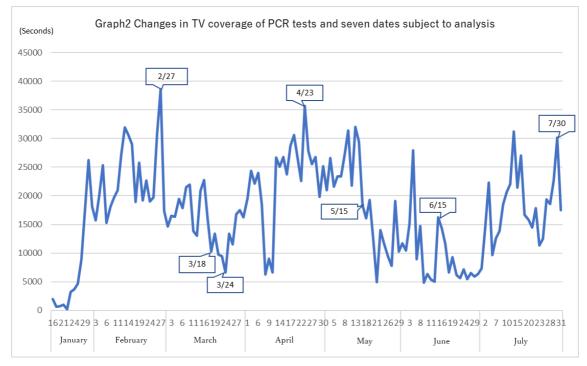
(A) Programs have extensive coverage of coronavirus-related reports and PCR tests (see Table 3 in Part 1).

(B) Programs have a representative nature as morning/daytime wide show, late afternoon lifestyle program and nighttime news program, all of which have different time slots and styles.

(C) Each of the programs is broadcast by a different TV station.

1-3. Choosing the date

It was impossible to watch and analyze all episodes of the four programs during the analysis period. So one date was chosen from each month from February to July (two dates in March). The episodes were transcribed with help from students of Chuo University's Faculty of Law. Types of speakers, how they spoke and the content of their remarks were coded and analyzed.

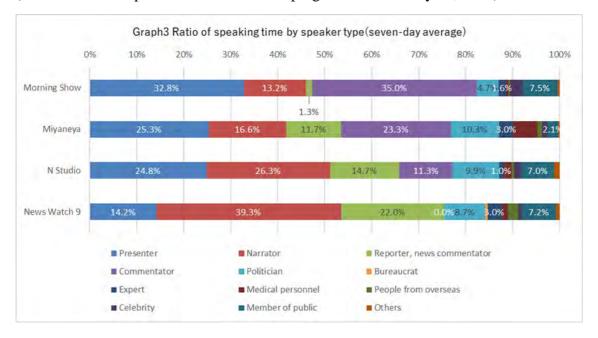


The chosen dates are mentioned in Graph 2. They were selected among dates when TV coverage peaked or hit bottom. For May and June when the overall coverage was low, dates when major events happened were chosen. For each of the seven dates, a topic and a program to focus on were decided with the aim of finding out the mode of the reporting at that time.

As a reference for the analysis of the coverage by the four programs on the seven dates, the content of their episodes immediately before and after the seven dates as well as the content of other programs were checked using meta data. When the article goes beyond the basic frame of the four programs on the seven dates to talk about underlying themes, *#* is attached to the subtitle to make it easy to see.

2. Characteristics of the four programs (With the results of audio analysis)

When the content of the four programs was transcribed, it was coded for audio analysis. Speakers were divided into 12 categories, including presenter, newscaster, narrator, reporter, commentator, politician and expert. Graph 3 shows the daily average time each type of speakers spoke in the four programs on the seven dates. The characteristics of the programs will be introduced by using this graph as a reference.



(Photos in this chapter are scenes from the programs on February 27, 2020)

Morning Show is a TV Asahi morning wide show. Commentators, including non-experts such as TV personalities, accounted for 35% of the total speaking time. The ratio is much higher than the other three.

Commentators from various fields include writer (Yoshinaga Michiko), journalist (Aoki Osamu), editor (Hamada Keiko), and TV personalities (Nagashima Kazushige, Ishihara

Yoshizumi, Takagi Miho). They are regulars who appear on a particular day of the week. Presenter Hatori Shinichi sets an agenda from remarks of an expert (e.g. Hakuoh University Professor Okada Harue) or a TV Asahi employee Tamagawa Toru, and commentators who know each other well express their opinions. The program adopts the mainstream style of wide shows, which is recreating socialization with neighbors on TV

screen. What is different from other wide shows is that *Morning Show* doesn't feature celebrity gossips much. Instead, it focuses more on social issues (e.g. tailgating incidents, illegal waste dumping) and politics.



Morning Show

Graph 3 shows that *Miyaneya*, an afternoon wide show on the Nippon TV network, has a good balance between each type of speakers. The program structure is same as *Morning Show*. An agenda is set by reports that incorporate VTRs and panels are read by announcers or reporters. Then presenter Miyane Seiji asks guest experts or regular commentators who include journalists (Yomiuri Shimbun senior columnist Hashimoto Goro, etc.) and TV personalities (Ahn Mika, Umezawa Tomio, etc.) to speak. The

program is different from the other three in that it's broadcast from Osakabased Yomiuri TV. Commentators such as former tennis player Sugiyama Ai and journalist Teshima Ryuichi who are at Nippon TV's studio in Tokyo take part via video link.



As shown by Miyane's frequent phrase, "What's the situation in Tokyo?" it has a distinctive Kansai taste although the program is broadcast nationwide and people who appear in it speak standard Japanese.

N Studio on TBS starts at 15:49 and ends at 19:00. The 191-minute lifestyle program changes its structure by the hour, like rival programs *news every*. on Nippon TV and *Super J Channel* on TV Asahi. *N Studio* has several news segments during its broadcasting time,

but features a wide range of topics from current affairs to social issues to music and movies to sweets cafes to kitchen items to satisfy the need of homemakers who are the main viewers. Newscasters are TBS announcer Inoue Takahiro and TV personality Horan Chiaki. Commentators are experts on such fields as infectious diseases and economics and journalists. Unlike wide shows, no TV personalities and non-experts appear as

commentators. As TBS's news division is involved in the production, *N Studio* has a lot of original footage and reports from outside the studio. Because of this, narrators who read scripts in VTR reports account for a large part of the speaking time.



N Studio

In *News Watch 9*, newscasters Arima Yoshio and Kuwako Maho (Wakuda Mayuko from April 2020) read news scripts, talking to each other and expressing their views between reports. One or two experts or NHK reporters appear in the studio when they provide indepth analysis but do not sit in the studio throughout the program. As a news program, it features a large volume of video reports. Narrations for them account for about 40% of

the speaking time. The newscasters are employees of NHK, like *Morning Show*'s Tamagawa is a TV Asahi employee. But in contrast to Tamagawa who talks a lot, the newscasters' combined speaking time accounts for less than 15% of the total.



News Watch 9

3. Analysis of program content

The seven dates chosen for the analysis are divided into three phases: The first phase when infections spread (February, March), the second phase when the state of emergency was in place (April, May) and the third phase when the second wave of outbreak occurred (June, July). Here, we will look at the nature of media reports on PCR tests in each phase and how the emphasis of remarks changed each month to outline the major trend of TV reporting on PCR tests.

3-1. Should tests be expanded or limited?

Amid increasingly emotional discussions as infections spread Analysis of the first phase (February, March)

February 27 (Thur.)

First and largest peak in coverage volume

[Theme] "Test refugee": Why can't people get tested?

News of the day

* 24 new cases confirmed nationwide, 8th death announced

* Infections spread in Hokkaido, the governor ordered public elementary and junior high schools to be closed

* Ichikawa City in Chiba Prefecture closed public schools and preschools

* Events were cancelled, including concerts by EXILE and Perfume

* A staff member at JR Sagamihara Station was confirmed to be infected

* Prime Minister Abe asked all schools to be closed nationwide from March 2

(About PCR test)

* A woman in Osaka who had been infected and recovered tested positive again

* Many people who were feeling unwell cannot take tests

Note: In the "News of the day" section, the number of positive cases and deaths are based on reports by *News Watch 9* on the day. Some data are from NHK's special website on the coronavirus

Reports on PCR tests by each program

All four programs had reports on PCR tests based on an exchange between health minister Kato Katsunobu and an opposition lawmaker at the Diet the day before. Told by the lawmaker that many people are unable to get tested, Kato replied, "the PCR testing capacity is 3,800 cases per day. But 5,759 tests were conducted in the six-day period between February 18 and 23. This translates into a daily average of 960 tests."

Miyaneya had a report on the situation in South Korea, which had conducted tests more than 10 times the number in Japan but was developing drive-through testing and other ways to further extend the test scheme. The coverage included a live report by a correspondent in South Korea. *N Studio* called for expanding the testing capacity by using the term "test refugee." *News Watch 9* spent the first 14 minutes for the impact of Prime Minister Abe's request for closures of all elementary, junior and senior high schools nationwide. Kitasato University Professor Nakayama Tetsuo was a guest in the studio in the second half of the program. He said the woman in Osaka may have tested positive in a retest because the virus that had remained in her system multiplied after she stopped showing symptoms. He also said little is known about how the virus work after people get infected. The program featured a tweet about a woman who had her request for a test was rejected by a local public health center. Another case featured in the program was about a 70-year-old man who visited a clinic in Tokyo after having had coughs for 10 days. When his doctor phoned a public health center, it refused to have the man tested, saying his condition is not serious. The program, through the words of the guest, called for utilizing private-sector test facilities to ease the burden on the overstretched public health centers.

Dr. Otani Yoshio, a specialist in respiratory medicine, appeared on *Miyaneya* and *N Studio* in pre-recorded videos on this day. Based on his experience at his clinic in Tokyo, he made an emotional appeal that patients cannot get PCR tests. He and infectious disease expert Okada Harue were guest commentators at the studio of *Morning Show*. The program had been reporting on PCR tests since the early stage of the outbreak. Although it featured the same phenomenon as others did, it was the first to point out the issue that would become a major focus of attention later on.

Program in Focus: Morning Show

Before February 27

Before going into what Morning Show reported on February 27, let's turn the clock back.

On January 15, 2020, the first coronavirus case in Japan was confirmed. *Morning Show* started extensive coverage of the virus the following day. On January 17, Okada was invited to the studio to explain the characteristics of the virus. In late January, infection spread in China, with medical services in Wuhan overstretched and the death toll continued to rise. The Japanese government decided to send chartered planes to the city to bring Japanese expatriates home. Around that time, Omi Shigeru, the head of the Japan

Community Health care Organization who later became vice chair of a government panel of experts, was a guest in the studio and made a noticeable remark. He said many infected people have only mild symptoms, so the pace of spread is faster than that of SARS⁴. He stressed the need for measures to prevent infected individuals from transmitting the virus to other people during the incubation period. At this early stage, he spoke about the characteristics that would make tackling the virus difficult. Since then, the program reported that some of the Japanese people who returned from Wuhan on the chartered flights refused to take a test because they had no symptoms, or went home without taking a test.

Morning Show used the term "PCR test" for the first time on February 3. On that day, it reported that a man who took part in a package tour to Guam with Chinese tourists developed a fever after returning to Japan. He contacted a coronavirus consultation office but was told that he could not take a test. On February 4, the Diamond Princess cruise ship that had arrived at Yokohama Port with 3,711 people on board started testing passengers for the virus without allowing them to disembark. Okada said all people on board should be tested and people should stay in their cabins even if they had no symptoms. As the tests made little progress, the number of on-board infections continued to rise. People who tested positive and those with severe symptoms left the ship, but there were still 3,400 people on board as of February 10. A health ministry official said only selected people, not those who want to get tested, will be tested because "it's impossible to test 3,000 people under the current test scheme."

The daily testing capacity was about 20 cases at the Yokohama Quarantine Station and 200 at the National Institute of Infectious Diseases (NIID). With limited resources, testing didn't pick up pace. In the end, 723 people aboard the Diamond Princess were infected and 13 of them died. The government came under fierce criticism from foreign media. When tests were conducted only through public health centers, the maximum daily capacity was 300. Prime Minister Abe promised to increase this to 1,000 by February 18 with help from private-sector laboratories and universities. However, the situation didn't turn for the better. *Morning Show* invited Kami Masahiro, director of the Medical Governance Research Institute. He proposed to allow medical institutions to outsource tests to private-sector companies by making the tests covered by medical insurance

schemes in addition to tests by public health authorities. He also proposed to use a test kit developed by a Swiss firm that enables mass testing. All the while, community infections spread in Japan as Okada had warned, and people who had a fever and other suspected symptoms were refused to get tested across the country. The program featured these cases.

Morning Show on February 27

The ratio of PCR test coverage in broadcasting time: 50% (57 minutes 39 seconds in the 115-minute program)

Let's go back to the original context. On February 27 (Thur.), *Morning Show* had two exclusive reports.

One is a woman in Osaka whose request for a test was rejected by a public health center that said her symptoms didn't match the conditions eligible for a test. She then contacted the consultation offices of Osaka Prefecture and the health ministry but was only given a bureaucratic turnaround. The other is a woman in her 20s in Kumamoto who developed coughs and a fever of higher than 39 degrees Celsius. She was able to take a PCR test on the fourth day after developing symptoms and confirmed to be infected on the fifth day. By that time, her condition had so deteriorated that she had to use a ventilator.

As for the second case, guests made remarks that helped viewers understand that people who initially had mild symptoms could suddenly become seriously ill (conditions that require using a ventilator or treatment at an intensive care unit). The remarks were also an objection to guidelines for conducting PCR tests released by the health ministry on February 17. The guidelines say people should take a test when "they have symptoms of common cold or have a fever of 37.5 degrees or higher for four days or more" or when "they feel strong lethargy or have breathing difficulties."⁵ Followings are remarks by the commentators. Words in the parenthesis are added by the author.

Otani Yoshio: I wonder whether the (health ministry's) four-day rule is right. Considering that symptoms suddenly get worse in some cases, the sooner people take a test, the better.

Kami Masayuki: Early diagnosis and early treatment is the golden rule. As a doctor, I cannot tolerate letting patients wait for diagnosis until they become seriously ill.

Tamagawa Toru: High-risk individuals such as senior citizens and people with underlying health conditions should receive medical treatment when their symptoms are still mild. (Contrary to what the health minister said,) the levels of private-sector (tests) are high. The government should quickly cover PCR tests with insurance schemes to curb the spread of the infection and prevent infected people from becoming seriously ill.

Okada's remarks on this day were somewhat different from the main topic. But as an expert who had conducted a lot of infectious disease case studies, her remarks were

criticism of the government that was preoccupied with haphazardly tracing infected people's contacts without trying to grasp the whole situation, and made a sudden request for nationwide school closures although there is no scientific evidence supporting such a measure.



Okada Harue (From *Morning Show* on Feb. 27, 2020)

"We don't have data on community infection rates. The lack of tests and epidemiological studies is a disadvantage. That's why the government fails to present a convincing simulation."

Allegation of "infectious disease village"

Moving away from the main story again. Okada attracted support and opposition, but her profile continued to rise and earned her the nickname "queen of corona." She sticks to the principle that measures to tackle an infectious disease should be drawn up based on sufficient tests and studies. Her standpoint is different from that of researchers who are involved in drawing up government responses when they have poor medical services and insufficient test schemes. Her persistence on the principle highlighted the abnormal nature of the situation in progress.

On February 28, her remark had a big impact on Japanese society. Answering to Hatori who asked why the number of tests does not increase, Okada quoted a political source.

"I was told that this is a fight over territory. The data (coming from local public health institutes that conduct tests) are very important, so some retired members of the NIID want the institute to keep the data, and that is why more tests are not conducted. When I heard this, I thought they should stop doing such a thing. They should not care about academic papers or achievements now, they should focus on saving lives. I want them to go back to the original policy of the NIID."

"I'm not saying everyone at the institute is like that. I respect the current director. But there are some retired members who want to withhold the data. It's scary to think that their action could affect people's lives."

Her comment that PCR tests are not conducted by the private sector because the NIID, which oversees tests by public health centers, wants to be in charge of everything about the tests to keep the data to itself. The comment was widely shared on the Internet, generating various speculations. One went so far as to suggest that the institute may have a tendency for non-disclosure because its roots can go back to Unit 731 of the nowdefunct Imperial Japanese Army.⁶ The NIID immediately issued a comment denying such intention. However, her remark was regarded by some as whistleblowing because Okada is a former researcher at the NIID and the denial helped Internet users share the remark even more. At the same time, the media, researchers and journalists became interested in why the number of tests does not increase despite the prime minister's pledge, and started their own investigative reporting or speaking out.⁷ One researcher even argued that the NIID, the health ministry's Tuberculosis and Infectious Diseases Control Division, the University of Tokyo's Institute of Medical Science and the National Center for Global Health and Medicine are the core members of the "infectious disease village" - like the "nuclear power village" that was often mentioned in the aftermath of the 2011 accident at the Fukushima Daiichi nuclear power plant. The researcher alleged that the inward-looking "village" members want keep the budget and information to themselves, and that's why tests are not outsourced to the private sector and the number of tests does not increase.8

News program that served as a link

Morning Show's tendency to have in-depth discussions is partly because a large part of a wide show is free talk about newspaper articles or Internet information, not original reports by its production staff. Remarks by commentators sometimes veer from the expected course during the programs that run nearly two hours. This carries the risk of speaking about inaccurate information. It's polar opposite of "discussions" on *News Watch 9*, where reporters who appear in the studio read out prepared comments from notes at hand.

As for "test refugee," however, one program was ahead of others in finding out facts and led discussions on the matter that eventually involved the Diet. This deviates from the main story again, but it's worth mentioning. The program is news 23 on TBS. On February 25, news 23 used a subtitle "Why is the number of tests insufficient?" and featured Dr. Otani's comment that even seriously ill pneumonia patients who need oxygen masks cannot get tested. The program also reported that discussions at the Diet revealed that the government did not know the cumulative number of tests nationwide, while introducing South Korea's test scheme that was able to handle 7,548 cases per day. On March 10, news 23 featured a story about Wakayama Prefecture, where a cluster infection occurred at one of the regional core hospitals in February. The prefectural government served as an intermediary between people who seek advice and public health centers to facilitate PCR tests. 317 people, or 67% of those who sought consultation, underwent tests in a three-week period, preventing the cluster from expanding. Tokyo has a population 15 times as many as that of Wakayama. Only 127 people, or 0.9% of those who consulted, took tests during the same period. Wakayama Governor Nisaka Yoshinobu's remark is impressive.

"There's one instruction Wakayama Prefecture will never oblige. That's having people with a fever wait for four days before they see a doctor. Waiting for such a long period could cause secondary infection and virus carriers could become seriously ill while they wait."

news 23 presented an alternative and invigorated discussions. TBS continued to follow the South Korean situation, reporting it on news 23 and News 1930, a two-hour news

program on the BS-TBS channel. The broadcaster also invited politicians with expertise, including former health minister Tamura Norihisa and scientists, for discussions to "visualize" the situation in Japan.

"Agenda-setting" achieved

The volume of coverage on PCR tests increased after broadcasters and newspapers competed with each other and shared their reporting to provide more in-depth coverage.

Media researcher Ito Takashi⁹ wrote in his book that the power of journalism lies in the "capability to collect information and unearth facts" and the "capacity to generate media public opinions." He says "media public opinions" are what the media creates as the result of agenda-setting. He wrote, "When many media outlets report on the same fact and give similar assessments, they are regarded as 'public opinions.' By being acknowledged this way, 'information' covered by the media becomes more powerful." (Ito 2010, p52)

The issue of insufficient PCR tests was set as an agenda society needs to address after almost all broadcasters and newspapers reported it simultaneously. Ito also says another important role is "framing." It's a concept introduced to media studies in the 1980s. Takeshita Toshio, a researcher on agenda-setting, defines a frame as "a framework of interpretation for a particular issue or event" and framing as "an act that applies a frame to the situation." He also says agenda-setting stays in the level of perception, but the effect of framing affects attitude and actions. (Takeshita 2008, p243, 274)

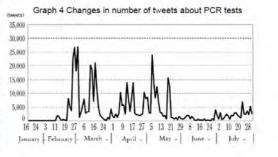
Applying his definition to the issue of PCR tests, a frame (framework of perception) that there are "test refugees" who are suspected of being infected with the coronavirus but cannot take a test was shared by TV stations (agenda-setting). Extensive media coverage (framing) followed, leading the issue to be discussed at the Diet. The process of addressing this social issue began.

Another important factor today is that social media responded and had an impact in the process. As Endo Kaoru said in 2018, there were "complex and dynamic media interactions."

Column 1 Information-sharing on Twitter and invigoration of discussion

Graph 4 shows changes in the number of tweets related to TV programs ⁱ among tweets about PCR tests. Between January and July, the first and the biggest peak occurred around February 27.

A tweet about South Korea's extensive test scheme and a comparison with the Japanese scheme in relation to a report on *news 23* on February 25 was retweeted 16,800 times (it's the most retweeted single post in the half-year period). A post about infectious disease expert Okada Harue's comment on *N Studio* on February 24 that PCR tests should be covered by healthcare insurance to help expand the test scheme was retweeted about 4,100 times.



On Twitter, there were posts as early as in late January that suspected coronavirus carriers were turned away by medical institutions. In February, the term "Kensa Nammin" (test refugee) was coined to describe people who want to take PCR tests but cannot. In late February, #Kensa Nammin appeared, indicating that Twitter users shared serious concern about tests.

On February 26, an opposition lawmaker used the term in the Diet to criticize the government's test scheme. TV programs started to broadcast feature stories using similar terms.

This is believed to be the reason why tweets about news 23 and N Studio, which questioned the domestic test scheme, were widely shared.

On the other hand, there is a common feature among tweets that were related to TV programs and widely shared: images or video clips from the programs were attached.ⁱⁱⁱⁱⁱ

All posts that contained the eight coronavirus-related keywords presented in Part 1 of this report were analyzed again.^w It has been found that on average, 37% of the posts had attached images or clips in the six-month period until July (tweets containing an URL that led to images or clips attached to other tweets were counted). Posts on PCR tests had the highest percentage at 46%. When limited to the top 100 most retweeted posts, 53% were attached with images or clips from the programs. There is a tendency that widely shared posts have images or clips cut from TV programs.



What does this tendency mean?

One is a positive aspect. Whether it's about South Korea's test scheme or about measures to conduct more tests, sharing what was said on TV with images or clips enabled people to share awareness to an issue. Whether to support the expansion of tests or not has become an issue and it was widely shared on TV and Twitter. When the issue was repeatedly broadcast or shared, people may have discussed it when they met others in person. When the issue became visible, the government was forced to acknowledge that it should not be overlooked.

But there is a negative aspect, too. Clips attached to tweets tend to be taken out of the programs' original context and shared.

For example, a tweet that accused Tamagawa Toru of retracting his call for expanding PCR tests had a 15-second clip of him on *Morning Show* on March 16. The post was retweeted about 10,000 times. Tamagawa said in the clip, "Preventing medical services from collapsing has the utmost importance. Whether you should take a PCR test or not is an old story." Many comments in retweets accused him of changing his stance as the original user did.

However, Tamagawa said in the program on March 17 that what he intended to say the day before was that discussions on PCR tests had reached a conclusion that they should be expanded. The footage from March 16 showed that Tamagawa was speaking exactly as he explained. The user did not take the whole context into account, chose the part the person wanted to emphasize and posted the clip.

It has been found that tweets with images or clips attached tend to be widely shared, and they have positive and negative aspects. In the negative aspect, clips cut out from the programs and stripped of the complexity are shared. Footage taken out of the original context could cause misunderstanding and frictions. This is an issue TV cannot overlook. But as interactions between TV and social media continue to deepen, finding a solution for this issue won't be easy.

¹ The TV programs refer to the 25 programs mentioned in Part 1 of this report.

¹¹ Cutting out footage of a TV program and post it on Twitter could be a copyright violation. But this article's objective is to introduce the act as it is, so it does not go into whether this act is acceptable or not.

 ¹¹ The clips attached to the tweet was taken from *news 23* on March 10, 2020.
¹² The eight keywords are "PCR tests," "Wuhan," "cruise ship," "school closures," "business closures/compensation," "voluntary restraint." "masks" and "state of emergency declaration."

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March 18 (Wed.), March 24 (Tue.)

Olympic postponement and further spread of infections

[Theme] Limiting PCR tests: Facing the crisis of medical service collapse

On March 18 and 24, the volume of coverage on PCR tests declined as shown in Graph 2. At that time, whether to postpone the Tokyo Olympic and Paralympic Games was a focus of news. Also, coronavirus case counts were surging in Europe and the United States. A pandemic was imminent. The two dates are treated as one to see the overall trend of programs.

News on March 18

* 33 new cases were confirmed nationwide, bringing the total to 899

* A transport plane took off for Greece to bring the Olympic flame to Japan, but Tokyo 2020 organizing committee president Mori Yoshiro and other officials did not go

* Japan Football Association President Tashima Kozo tested positive after returning from a business trip to Europe

* Many cases were found among people who had returned from Europe

* The EU started restricting entry from outside the bloc. France began a nationwide lockdown. 179,112 people were confirmed to be infected 7,426 people had died in 162 countries (of the fatalities, 2,503 were in Italy)

News on March 24

* 38 new cases were confirmed nationwide, bringing the total to 1,089. The death toll rose to 43

* WHO Director-General Tedros Adhanom Ghebreyesus warned that "pandemic is accelerating"

* Tokyo Olympics will be postponed by about a year (Prime Minister Abe and IOC President Thomas Bach held telephone talks)

Ratio of PCR test coverage declined

With the focus of news shifting to Europe and the Olympics, the ratio of PCR test coverage fell to 13% (15 minutes) even on *Morning Show* on March 18 and 24% (27 minutes 43 seconds) on March 24. For *N Studio*, the ratio was about 6% (12 minutes) on both dates. It was 11% (6 minutes, 39 seconds) and 0% for *News Watch 9*. But the ratio at *Miyaneya* was 27% (30 minutes, 55 second) and 12% (13 minutes, 27 seconds).

Program in focus: *Miyaneya* Presenter changes his tone

Miyaneya presenter Miyane Seiji was calling for the expansion of PCR tests in February.

But in March, he repeatedly expressed skepticism of the need for expanding the test scheme. On March 18, he asked Dr. Kamayachi Satoshi, an Executive Board member of the Japan Medical Association and a member of the government panel of experts:



Miyane Seiji (From *Miyaneya* on March 18, 2020)

"Medical resources are limited, and conducting tests requires manpower. Doctor, you are not saying that everyone must take a PCR test, are you?"

When Dr. Kami called for expanding the scheme, saying that medical experts should think on the same level as patients, Miyane said:

"Data suggest that many infected people have only mild or no symptoms. Is there a need to conduct tests in such a situation?"

On March 24, he went so far as to say:

"Italy conducted a lot of tests and its medical services collapsed."

The biggest reason for the collapse of medical services in Italy was the poor state of the services, including the extremely limited number of beds in intensive care units. Germany's test scheme was as extensive as that of Italy's, but medical services remained solid. It's clear that an increase in the number of tests was not the sole reason for Italy's collapse. Miyane's comments that directly linked PCR tests with the collapse of medical services were influenced by events that had occurred and people who had appeared in the program since February.

Framing of "Call for limiting PCR tests"

As stated in Part 1, after *Morning Show* reported mask shortages at medical institutions, the health ministry named the program in a tweet on March 5 and objected to the report, saying that medical institutions were given priority in receiving masks. Around the same time, *Morning Show* and its commentator Tamagawa Toru became targets of criticism on social media. People who wanted to support the government, which was focusing on tracking down the routes of cluster infections to prevent new infections and limiting resources to protect the vulnerable PCR test scheme, were attacking the program that called for expanding the scheme. As if taking the ministry's tweet as a signal fire, framing began between two opposing views and frameworks, one in favor of expanding the test scheme and the other in favor of limiting it. A public opinion that is negative about expanding the scheme, which links PCR tests with the collapse of medical services, would persist for a long time.

Before Miyane changed his view on PCR tests, up-and-coming expert Muranaka Riko was a guest in the studio on March 4. A doctor and journalist, Muranaka said she had a career at a pharmaceutical company's research lab and was involved in WHO's pandemic responses. She spoke in a strong tone:

"The government issued guidelines for seeking medical treatment. People must abide by the instruction that they should wait for four days after developing a fever, otherwise public health officials will become unable to trace cluster infections."

"Even if you test positive in a PCR test, you will be prescribed only with medication for

common cold if you have mild symptoms. If you are in serious condition, you will be put on a ventilator, but the treatment is the same for other illnesses. You won't get special treatment if you have Covid-19. There's not much benefit in taking a PCR test because it has nothing to do with treatment."

It's easy to imagine that Muranaka's comments affected Miyane. But her remarks have since proved inaccurate, because many patients who initially had mild symptoms suddenly became seriously ill. Also, it has been found that administering existing antiviral drug such as Avigan at an early stage can prevent some patients from getting seriously ill. Muranaka's case teaches us that in the face of an unknown infectious disease, even an expert makes remarks that could mislead the public.

Muranaka argued at that time that the health ministry should focus on measures to curb cluster infections by limiting PCR tests for the general public. However, as community infection spread and it became impossible to trace contacts in many cases, the measures started to show its limits. The ministry shifted its focus on restricting social contact by urging people to refrain from making nonessential outings and travels.

The framing of limiting PCR tests, together with the fear of the collapse of medical services, briefly gained momentum on TV and social media. Some of Muranaka's tweets were widely shared. But as the situation became fluid, this framing was obscured by a new framing.

Comments on the other three programs

Morning Show continued surefooted discussions on March 18. Okada urged hospitals to set up a division exclusively to conduct tests on outpatients with a fever (as part of efforts to prevent in-house infections) and divide patients in a proactive and simple way. Hamada Keiko said some spare capacity is needed for medical services to prevent them from collapsing like in Italy. Tamagawa urged the Self-Defense Forces Central Hospital (which accepted coronavirus patients but had no in-house infections) to disclose information on how it prevented clusters.

On the same day, *N Studio* invited Chubu University Professor Hosokawa Masahiko, a former economy ministry official, to the studio. After a report that showed restrictions on social contact caused confusions overseas, he argued that the economy needs people's activities to survive. But presenter Horan Chiaki quipped, "People's lives are more important than the economy or anything else." Hosokawa persisted, "Now we need to focus on curbing the outbreak by limiting economic activities. But once we learn more about the virus, we would be able to advance to the next phase where we can find a balance between reducing the number of deaths and running the economy." In hindsight, their exchanges predicted what would happen later on.

N Studio had a deeply impressive report on March 24. After showing how people in France and Italy were living under lockdowns, the program aired a self-filmed video by a 39-year-old woman in intensive care in Britain. Coughing all the time and in short breath, she told viewers not to be overconfident about their health. The footage showed the terrifying power of Covid-19.

News Watch 9 quoted data compiled by overseas researchers on the monthly number of PCR tests. While China conducted 320,000 tests and South Korea 250,000, Japan carried out only 32,000 tests. The program also featured WHO Director-General Tedros's remark, "Test, test, test." It also reported a public health center in Niigata City that learned from South Korea and started drive-through testing. *News Watch 9* also said the testing capacity in Japan had doubled in a month, but only 20% of people with suspected symptoms get tested, and a device that would simplify tests is under development. Then the program introduced a remark by Tohoku Medical and Pharmaceutical University Professor Kaku Mitsuo, who stressed the need to link PCR tests with medical services to prevent the collapse of services like Italy did.

On March 24, *News Watch 9* has an interview with Prime Minister Abe, who had decided to postpone the Tokyo Olympic and Paralympic Games for about a year in telephone talks with International Olympic Committee President Thomas Bach, and another interview with Tokyo Governor Koike Yuriko. Though the program didn't touch on PCR tests, it reported the rapidly worsening global coronavirus situation and mentioned Koike's remark the previous day that she may have to introduce a lockdown in the capital.

Column 2 Analysis of Twitter users

Who posted what tweets about TV programs in relation to PCR tests? An analysis was conducted by focusing on the number of tweets⁴ and the number of engagements (a sum of the number of retweets, replies and likes. The author thought that this can be a guide to see how much Twitter users felt empathy with the posts and shared them).

Among people who tweeted about TV programs^{ai} in relation to PCR tests between January and July, 100 most frequently tweeted users (herein after referred to as frequent users) and 100 people who have the highest engagement numbers (hereinafter referred to as high engagement users), i.e. people whose tweets were widely shared. Graph 5 is a list of top 20 frequent users. Graph 6 is a list of top 20 high engagement users.

Users	Total number of tweets	Total number of engagements
1	239	52
2	199	358
3	192	183
4	183	7,372
5	179	501
6	153	168
7	146	112
8	122	229
9	116	56
10	108	18
O 11	97	42,964
12	95	2,702
• 13	95	16,084
14	86	154
15	84	573
16	81	500
17	75	306
18	73	525
19	72	308
20	70	122

Graph 5 The 20 most frequently tweeted users

Graph 6 The top 20 high engagement users

Users	Total number of tweets	Total number of engagements
1	14	102,691
2	19	92,443
3	19	77,995
4	4	71,189
5	3	54,945
6	4	47,638
07	97	42,964
8	2	29,641
9	3	27,858
10	8	25,728
11	4	25,335
12	2	23,885
13	4	22,975
14	2	22,902
15	2	17,666
16	2	16,417
• 17	95	16,084
18	1	15,804
19	6	15,281
20	3	14,703

In Graph 5 and 6, ○ and ● are the same users

In Graph 5, the top-ranked user posted 239 tweets over the seven-month period. That means the user posted one or more tweets per day on average. But the number of engagements for all posts by the 20 most frequent users are not very high in general.

In Graph 6, the total number of tweets by each high engagement user is not large with a few exceptions. But the top-ranked user has an engagement number of more than 100,000. Even the 20th-place user's engagement number is nearly 15,000.

Two users are listed on both. The 11th- and 13th-ranked frequent users are the 7th- and 17th-ranked high engagement users. No others have made it to the top 20 on both lists. This means that users who frequently post tweets do not necessarily have high engagement numbers.

What tweets did the users on the lists posted? Let's start with the frequent users.ⁱⁱⁱ

The top-ranked user is a corporation and the rest are individuals. Among posts by the individuals, a few showed support for programs that called for the expansion of PCR tests. But most were skeptical or critical of the programs. The second- to 5th-ranked users cited the low accuracy of PCR tests, the problem of false positive cases, the risk of causing the collapse of medical services, the high number of infections in other countries that were promoting PCR tests. Some even ridiculed the programs and people who appeared on them as broadcasting "propaganda" or being a "PCR cult." Many of other tweets unilaterally promoted certain arguments or repeated same messages. A certain number of users defended the government or made discriminatory tweets about foreign countries.

Compared to the 20 most frequent users, many tweets by the high engagement users were in support of the programs that called for the expansion of PCR tests. The top three users mentioned *news 23* that reported the test schemes in South Korea and Wakayama Prefecture, or *Morning Show* that called for the expansion of PCR tests. They criticized the government for

failing to provide a sufficient test scheme. One tweet ridiculed the government for doing "coming soon" fraud. On the other hand, their tweets included one that cut a part of *Morning Show* commentator Tamagawa Toru's remark out of context and caused misunderstanding. Another mentioned *Sukkiri* that reported the hardships medical staff were facing and criticized others programs that called for expanding PCR tests. Not all tweets with high engagement numbers were in favor of expanding the test scheme.

The official account of TBS News ranked 10th, showing presence in a form other than broadcasting.iv

Let's look at the formats of highly engaged tweets. Unlike posts by the frequent users, easy-to-read sentences and layouts are chosen regardless of the users' stance on PCR tests. Also, the tweets stated what readers would find surprising or want to know in precise ways, making it easier for readers to empathize them.

Examples include "What surprised me on *news 23* last night is this! A site for coronavirus PCR tests in South Korea. So casual and looks like a lottery counter at a supermarket!" (February 26, 44,935 engagements) and "What a difference. The number of cases consultations centers referred to medical institutions is 317 in Wakayama (67%), 127 people in Tokyo (0.9%)." (March 11, 27,207 engagements)

Twitter users include high-profile people. High engagement users include Muranaka Riko (12th), Hosaka Nobuto (22nd), Kadota Ryusho (journalist, 29th), Mogi Kenichiro (scientist, 37th), Shimazono Susumu (religious studies scholar, 44th). Muranaka is the only one among them to made it to the top 20. Most of the high engagement users are well-known in cyberspace but almost unknown in real society. There seems to be a possibility that on Twitter, content and style rather than celebrity status enable users to get high engagement numbers.

ⁱ In order to grasp the user trend, only the number of original tweets was counted. Retweets were excluded.

- if The programs refer to Morning Show, Miyaneya, N Studio and News Watch 9 that are the subject of analysis in Part 2, plus news 23 because it drew attention of Twitter users from an early stage due to its coverage of PCR tests.
- ⁱⁱⁱ For the top 20 high engagement users, all their tweets about PCR tests were checked. But for the 20 most frequently tweeted users, about 40 tweets per user were checked through random sampling, because the number of their tweets was large.

^{iv} Among other programs, *news zero* ranked 27th and *Hodo Station* ranked 73rd.

One commentator's suffering

In looking at relations between TV and social media over the coverage of PCR tests, one significant event occurred in March. Dr. Otani Yoshio appeared in many programs in February to tell that many people were unable to get tested and patients and medical staff were driven to the edge. He became a target of attacks on Twitter and other social media platforms. He was accused of criticizing the government and being anti-Japan. His clinic in Tokyo received 20 to 30 telephone calls from protesters per day, preventing its patients from contacting the clinic. Even one male protester came to the clinic uninvited. The

doctor's wife fell unwell after responding to him.¹⁰ The doctor says he didn't criticize the government but only stressed the need for tests from the medical perspective. But he temporarily declined to appear on TV.



Otani Yoshio (From *Ohayo Nippon* on July 3, 2020)

Risks associated with framing

When NHK's morning news program *Ohayo Nippon* had a report on this case on July 3, Osaka University Associate Professor Tsuji Daisuke who specializes in media studies gave a following comment:

"The issue was framed as criticism of the government. It's called framing in the academic world. Particularly on social media, people often take a remark out of the original context and give it their own context."

So far, the author reviewed the coverage of PCR tests by focusing on framing (the application of frames), which is as important as mass media's agenda-setting. Tsuji's analysis provides an unexpected viewpoint. When many media outlets share a frame, media public opinions are formed and have a strong influence on people's actions. But in order for this to happen, the frame must have "legitimacy" accepted by many people, as Ito argued in 2010. However, what was happening on social media was "framing" that intentionally distorted original remarks, and actions that were self-centered, politically motivated or based on a biased sense of righteousness intended to spread distorted remarks to influence public opinions.

Examples include taking some of Tamagawa Toru's remarks out of context and spread them on social media to give the impression that he is a "turncoat," and framing Dr. Otani as a critic of the government and making him a target of a hate campaign although he was only called for more tests.

These cases suggest that in the inter-media society where TV and social media closely interact, there is a risk of intentional campaigns that could do harm to people who appear on TV.

Inter-media collaboration can contribute to agenda-setting and give hope for a constructive future. But do they sometimes fail to function as a "place for rich publicness" as Endo said in her 2018 paper? She quotes American sociologist Wayne Baker as saying that "with the advancement of the media, people are required to be more aware of

publicness and have better capabilities to make use of their social connections. But they are not fully aware of these needs. That's why troubles occur."¹¹

The inter-media society is still in its early phase. TV has long been asked to become mature. The challenge is: How can the inter-media society be mature?

3-2. Politicians' showtime

State of emergency declaration, PCR tests recede into background Analysis of second phase (April, May)

The number of newly confirmed cases started to surge in late March. The government declared a state of emergency in Tokyo and six other prefectures on April 7. The declaration was expanded to the rest of the nation on April 16. Central and local governments urged people to refrain from making nonessential outings and cross-prefectural travels. All the while, comedian Shimura Ken died on March 29 and actor Okae Kumiko died on April 23 after contracting the new coronavirus. Their deaths made people realize that the threat of the virus is close.

TV programs started taking anti-infection measures. People in the studio keep physical distances. In some of the programs, one of the presenters moved to another room in the office and appeared via video link. Some regulars started to take part from their homes.

As infections continued to spread and the death toll kept rising, TV coverage of PCR tests peaked again. Discussions began on the introduction of measures to see the extent of community infections, including positive rates and antibody tests.

However, with the number of new cases starting to fall in May, media interest shifted to the lifting of the state of emergency and the exit strategy towards it. Politicians appeared on TV more often. They included Tokyo Governor Koike, who had appeared on TV on a daily bases since her "lockdown" remark in March, and Osaka Governor Yoshimura Hirofumi who drew up the prefecture's original exit strategy called the Osaka Model. April 23 (Thur.)

Second peak of TV coverage, death of a popular actor

[Theme] Infection and death feel close

News of the day

* 401 new cases confirmed nationwide, bringing the total to 12,394. The deaths of 23 people were announced, with the total death toll reaching 322

* Actor Okae Kumiko died after contracting the coronavirus

* A 52-year-old man in Saitama Prefecture, who had been self-isolating at home after testing positive, suddenly fell ill and died

* 48 cases were confirmed on board a cruise ship anchored at Nagasaki Port

* Prefectures decided to disclose names of pachinko parlors and other businesses that refuse the request for closures

* The government panel of experts issued guidelines "10 tips for reducing contact by 80%"

* Governor Koike told Tokyo residents to stay at home during the 12-day holiday period, go shopping every three days with minimum number of people to avoid Three Cs (closed spaces, crowded places, close-contact settings) at supermarkets

Program in focus: *N Studio* "Death of a family member"

The most shocking news of this day was the death of actor Okae Kumiko. *N Studio*, a late afternoon lifestyle program on TBS, was the first to break the news and gave it extensive coverage. The opening comment by presenter Inoue Takahiro summed up how the broadcaster took in the news.



The late Okae Kumiko and Inoue Takahiro (inset) (From *N Studio* on April 23, 2020)

"Good afternoon. It's past 3:50 p.m. Welcome to N Studio. We've got very sad news. Actress Ms. Okae Kumiko has passed away. Ms. Okae presented our morning lifestyle program Hanamaru Market for more than 17 years. We TBS announcers all worked for the program early in our career. Everyone, including myself, owes so much to Ms. Okae and Hanamaru Market. Her passing is so sudden. We are so sorry. She had an operation for early-stage breast cancer late last year, and underwent radiotherapy until late February. The treatment had weakened her immune system, and this is believed to be the reason she developed severe symptoms."

The other presenter, Horan Chiaki, was in another studio in the TBS building. She called Okae her mother in the show business as they appeared in the same programs many times, and expressed disbelief about her death. Their remarks indicated that the staff of *N Studio* (or TBS as a whole) felt as if they lost one of their family members, and they were at a loss. Okae made her debut on TBS drama *Omitsu*, so the broadcaster was like her home. *Hanamaru Market*, for which Okae was a main personality for 17 years, was one of the most popular programs on TBS. *N Studio* looked back her life with archive footage at TBS to highlight her down-to-earth, much-loved character and quoted a comment by her husband Owada Baku and the couple's eldest daughter Miho that her passing is regrettable and hard to believe. *N Studio* also featured comments by her friends in the show business and from members of the public. A woman who was interviewed on the street gave a lasting impression. When she heard that Okae had died, she seemed truly shocked, with her eyes looking nowhere. She apparently felt affinity with the late actor and was puzzled to hear that her death was linked to the coronavirus.

If she had tested sooner...

Two infectious disease experts appeared later in the program. Okada Harue was a guest in the studio. She pointed out that Okae was in her 60s (she was 63), an age group that has a higher risk of developing severe symptoms, underwent a breast cancer surgery in 2019 and started receiving radiotherapy in January 2020. Although Okae had underlying health conditions, she took a PCR test only after her condition suddenly turned for the worse three days after developing a fever and was sent to an intensive care unit. Okada made a following comment:

"She had underlying health conditions and was in her 60s. The outcome may have been different if she had taken a PCR test and been administered with Avigan when she was told to wait and see. Hearing Ms. Okae's case, I keenly feel that creating a system to conduct tests and prescribe medicine to high-risk people at an early stage is important." Avigan was developed in Japan and is expected to be effective in treating coronavirus infections. In a radio program quoted by *N Studio* on this day, actor Ishida Junichi, who had tested positive during his trip to Okinawa, said in a telephone interview from his hospital bed that he is recovering thanks to Avigan.

The other expert, Professor Matsumoto Tetsuya of the International University of Health and Welfare, spoke about the terrifying aspect of the virus. A 52-year-old man was selfisolating at home in Saitama Prefecture after having been diagnosed with mild symptoms. But he died after his condition suddenly worsened. The health ministry had told people with mild symptoms to self-isolate at home. But after this case, the ministry changed its policy and urged those people to stay in hotels where they can see a doctor when necessary. Presenter Inoue made the following remark during an exchange with Matsumoto:

"We initially reported that 80% of infected people show only mild symptoms, but now we have this case. I've been feeling that it's scary when this optimistic view takes on a life of its own. There's absolutely no guarantee that people with mild symptoms can feel at ease."

The death of Okae, a member of the TBS family, apparently prompted this self-reflection. At the end of the program, Inoue addressed the viewers:

"It's true that the number of daily new cases will not drastically fall. But we have managed to keep the infection at this level because of your efforts. Let me say this again: Nothing is more important than life. This is an absolute truth. So please keep going for some more time..."

On this day, NHK's *News Watch 9* aired footage of Tokyo Governor Koike's news conference. Asked about the death of Okae, Koike said, "The coronavirus is not someone else's business. I'd like to ask people to realize that this is about yourself and your family." The deputy head of the government panel of experts, Omi Shigeru, said Covid-19 is a "disease that needs to be tackled by wholehearted cooperation among all generations." The three programs that were broadcast in the afternoon set a frame on the death of the popular actress, incorporating comments by politicians who appeared to be taking

advantage of the occasion.

Morning Show on April 23

Unlike the other three, *Morning Show* was broadcast before the news of Okae's death broke. So the program went ahead with its plan and spent 51 minutes, or 44% of its broadcasting time, on PCR tests.

Early in the program, a VTR report introduced the struggle and harsh reality of medical institutions. It featured an emergency clinic in Saitama Prefecture that started accepting more Covid-19 patients, a hospital in Tokyo's Minato Ward where a cluster infection occurred, and a hospital in Osaka Prefecture struggling with shortages of personal protective equipment and masks.

In the studio, Tamagawa and Okada responded to newly released data. Keio University Hospital conducted PCR tests on patients who were going to be hospitalized for illnesses other than Covid-19, and found that four of 67 patients were infected with the coronavirus. The positive rate was 6%, and all virus carriers had no symptoms.

Tamagawa: So one in 16 people is infected, having the capability to transmit the virus to others. Hypothetically, when there are 16 customers in a supermarket, one of them could be carrying the virus.

Okada: There is a possibility that a certain percentage of patients at a hospital can be asymptomatic virus carriers, although the rate may not be as high as 6%. This could lead to in-house infections, which could cause medical services to collapse. Even if the positive rate in community is not as high as 6%, if 3% to 5% of people carry the virus, it's a very serious figure.

Okada Harue and Tamagawa Toru

Okada had been criticizing the government for not releasing data on community infection rates, let alone conducting a study on the rates. On the other hand, she appreciated a set

of proposals unveiled by the government panel of experts the day before. The proposals included a call to expand the PCR test scheme and invest more resources in public health centers. For her, appearing on TV is a tool to urge the government to implement policies she supports.

But when Okada appeared on *N Studio* on the same day, Dokkyo University Professor Morinaga Takuro pointed out that linking the result of the Keio University Hospital survey with community infection rates is problematic. "(In social survey) a small sample of 67 people has a large margin of error. A survey involving 1,000 or 2,000 people is needed," he said.¹²

Although she is a researcher, Okada is prone to overstatements, and that's why some people criticize her for fanning fear of the coronavirus. Tamagawa sided with Okada and made their case. On this day, he sharply criticized experts on the government side.

"The government and the panel of experts have limited PCR tests. Now they plan to conduct more tests. They've changed policy without explaining why. Tohoku University Professor Oshitani (Hiroshi) is a member of the expert panel and the health ministry's cluster response team. He said on an episode of NHK Special broadcast on March 22 that

limiting PCR tests is believed to be a major reason why infections in Japan have managed to stay at low levels. But on April 11¹³, he said more PCR tests should be conducted. I really want to know what happened in the government. I believe that knowing it will enable us to better respond to the outbreak in the future."



Tamagawa Toru (From *Morning Show* on April 23, 2020)

In short, Tamagawa pointed out that Professor Oshitani had a jump in logic. The author does not ask whether Tamagawa's argument is right or not. His strong interest in community infection rates and persistent focus on remarks by experts who are close to the government shows that *Morning Show* is pursuing its own framing based on the

interest in "relations between measures against infectious diseases and tests" outside the central and local authorities' "stay home" framework. The program, led by Okada and Tamagawa, have attracted fervent supporters and fierce critics, seemed to be waiting for another power point.

May 15 (Fri.)

Local leaders' exit strategies to lift the state of emergency

On May 14, the state of emergency was lifted in 39 prefectures. The remaining eight – Hokkaido, Saitama, Chiba, Tokyo, Kanagawa, Osaka, Hyogo and Kyoto - needed to draw

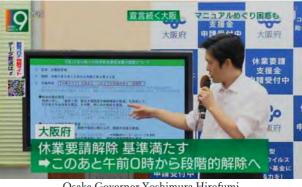
up their exit strategies. Osaka set its original "Osaka Model" criteria, starting preparations to lift the request for business closures. Tokyo drew up four-stage steps toward easing restrictions, based on seven monitoring indicators.



Tokyo Governor Koike Yuriko

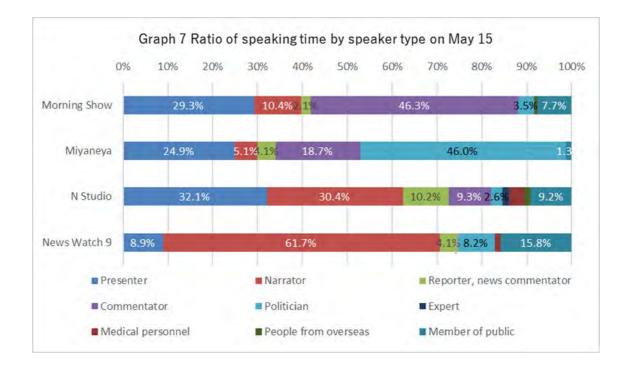
Osaka Governor Yoshimura's popularity surged as he implemented original coronavirus responses and frequently appeared on the media. Tokyo Governor Koike courted controversy since her "lockdown" comment in March, but raised her profile in the media

with her daily news conferences in which she urged people to take preventive measures. TV programs served as showtime for regional leaders. (The photos of Yoshimura and Koike are from News Watch 9 on May 15, 2020)



Osaka Governor Yoshimura Hirofumi

Graph 7 shows the ratios of speaking time by each category of speakers on May 15. In Miyaneya, politicians accounted for 46% of the total.



[Theme] Framing by politicians

News of the day

* 50 new cases were confirmed nationwide, bringing the total to 16,287

* State of emergency was lifted in 39 prefectures, a "new normal" way of life begins

* Discussions start on whether the summer national high school baseball championship should be cancelled

Program in focus: Miyaneya

Although based in a Yomiuri TV studio in Osaka, *Miyaneya* is broadcast nationwide. On this day, the program had a definite "Osaka" taste.

Right after the opening, a reporter excitedly said, "The lights of Tsutenkaku (a famous tower in Osaka City) have changed from red to green." A narrator followed, "Green light means that the prefecture has cleared its Osaka Model criteria. Alert signals across Osaka have changed to green to show the achievement." Then a video cut in, showing Governor Yoshimura say "Osaka has entered the second stage, a new stage where we will coexist with the coronavirus." Finally the narrator said, "Yesterday he was rolling up the sleeves of his white shirt. He's been supporting Governor Yoshimura. Osaka Mayor Matsui (Ichiro) will join us today. What is the next battle Osaka will face?"

The direction was entirely focused on Osaka from the start. But the program then switched to a live broadcast of Tokyo Governor Koike' news conference.

"Tokyo is still in the middle of a crisis of spreading infections. I would like to remind people that Tokyo Alert remains in place. So please remember three keywords: stay at home, stay in Tokyo and social distancing. They all start with an S. I would like to ask you to ensure that you follow these three to protect our lives and livelihoods."

To compete with Osaka's lighting-up of Tsutenkaku, Koike had Tokyo's Rainbow Bridge lit up in different colors in accordance with the seriousness of the coronavirus situation. She also coined the term "Tokyo Alert." At the news conference, she unveiled a roadmap and monitoring indicators for lifting business restrictions. But the program mentioned that Matsui will appear in the second half of the program before every commercial break. Miyane was apparently looking forward to welcoming the mayor. People in the studio often spoke about the "Osaka Model."

What is the "Osaka Model"¹⁴ in the first place? What was talked about in the program on that day was the conditions for lifting the business closure request. They were indicators set by the Osaka prefectural government, because the central government had not presented concrete criteria.

1) The number of infected people with untraceable infection routes falls below 10 in the seven-day average

2) The positive rate in PCR tests falls below 7%

3) The occupancy rate of hospital beds for seriously ill patients falls below 60%

When all these three conditions are met for seven days in a row, the prefecture would lift restrictions in phases. May 15 was a proud moment for residents of Osaka, because the conditions had been met for seven days on May 14, and the lighting of Tsutenkaku changed to green, heralding the start of lifting the business closure request. Here is a conversation between Miyane and Matsui, who appeared in the program via video link:

Miyane: Mr. Mayor, your hair has grown really long.

Matsui: I haven't been to a hair salon for three months.

Miyane: You must have been working around the clock.

Matsui: Governor Yoshimura is the commander-in-chief. I'm just staying home, following his instructions and supporting him behind the scenes.

Miyane: People in Osaka Prefecture are saying that you are the mastermind.

Matsui: No, no. The governor is the commander-in-chief. Under him, people of Osaka have united and managed to meet the three conditions of the Osaka Model. That's how things are right now.

Miyane: I can see Tsutenkaku from my home. I was emotional when I saw the lights change to green yesterday. Well, Mr. Taka, Governor Yoshimura told a news conference yesterday that he would take responsibility if a second wave of infection occurs and his decision to lift restrictions prove wrong. He also said this in a TV program in Osaka. I think that his determination has made people of Osaka Prefecture trust him and Mayor Matsui, and worked hard to meet the conditions.

Taka: A leader's ability to deliver his or her message means a lot. In the case of Osaka, the leader shows how to achieve the goal, not just words. It's easier for people to follow such a leader.

Taka refers to Guadalcanal Taka, a comedian and a member of Takeshi Gundan led by Beat (Kitano) Takeshi. The conversation reflected the studio's celebratory atmosphere for Governor Yoshimura, a new hero of the regional political party Osaka Ishin no Kai after former Osaka governor Hashimoto Toru and Mayor Matsui.

Politicians of Osaka Ishin no Kai have affinity with the media, obvious from the fact that party co-founder Hashimoto was a popular TV commentator. But this affinity can go too far. Yoshimura arranged a news conference in August to announce that gargling mouthwash can reduce the coronavirus, promoting an unverified theory based on ongoing studies. It prompted panic buying of gargling mouthwash, causing them to be sold out.¹⁵ *Miyaneya* broadcast the news conference live. Yomiuri TV was the broadcaster that helped Hashimoto launch his career as a commentator. Its leaning toward the party has been pointed out for a long time. People who appear in the program are unabashedly friendly to the party's politicians. Its exceptional closeness to a particular political organization is dangerous.

The state of emergency and its lifting gave a not-to-miss chance for national- and regional-level politicians to appear in the media to appeal their policies. Their framing was to use news conferences and other media occasions to make sales pitches for themselves and make their policies look more appealing. Notable examples are the lighting-up of Tsutenkaku and the Rainbow Bridge, both intended to use TV footage to give the public a good impression of their policies. Some TV stations seemed willing to be used.

Remark by TV personality Nagashima Kazushige

Coverage of PCR tests was small on this day. The occupancy rate of stories related to PCR tests was 4% on *Miyaneya*, 7% on *N Studio* and *News Watch 9. Morning Show* was the only program whose rate was double-digit, at 17%. A remark by Nagashima Kazushige, one of the *Morning Show* commentators, was memorable because he spoke about a young, little-known sumo wrestler who died after he was turned away by hospitals despite having a high fever in connection with exit strategies and conditions for easing restrictions.

"A young, 28-year-old sumo wrestler passed away yesterday or the day before yesterday. He was turned away because he had a fever. Professor Okada has been calling for

opening fever departments. Isn't it better to compile data on the response rate of such departments? We have various figures, but people won't feel safe if fever departments do not respond appropriately, even though they are happy when restrictions are lifted. What do you think?" (From M



Nagashima Kazushige (From *Morning Show* on May 15, 2020)

Commentators of wide shows are often criticized for expressing their views on topics they have no expertise in. But many viewers may have agreed with Nagashima, a former professional baseball player, who expressed compassion for a social victim¹⁶ of the

coronavirus who draws little public attention. There is a gap that has become clear in the coronavirus pandemic: famous athletes were able to take a test and receive medical treatment while their conditions were relatively mild, but a young little-known wrestler died after hospitals refused to take him in because he had a fever. The news must have touched the heartstrings of viewers.

Nagashima's comment made the author start to think that when TV personalities and other people whom viewers feel close to talk about the pandemic as their own business, they help generate "literacy (understanding)" that won't be generated when experts discuss a matter with hard-to-understand words. Now that no one in Japan is immune to the pandemic, this "literacy" matters a lot. If journalism wants to have the power to change society, it must not end up to be "chronicles of words and deeds of the elite."

3-3 Path to "social testing"Discussions reignited as "second wave" arrivesAnalysis of third phase (June, July)

The third phase covers from mid-June to July and August. In mid-June, the number of new cases in Tokyo, which had fallen to single-digit, started to rise again. Infections spread nationwide in July and August. It was the initial period of the "second wave" of the pandemic. More than 1,000 daily new cases were confirmed across the country at one time, much higher than daily case counts in the first phase. The infections were not contained in Tokyo and surrounding areas but spread to Hokkaido, Aichi, Osaka, Fukuoka and Okinawa. Many infected people were in their 20s and 30s at first, but infections spread to senior citizens. Fortunately, no major collapse of medical services occurred, and the numbers of serious cases and deaths were limited.¹⁷

It was a new stage started by aggressive testing of host club employees in Shinjuku's Kabukicho district, which the Tokyo Metropolitan Government had singled out as an infection hotspot (epicenter). As this article focuses on PCR tests, the theme for this phase is naturally "tests for asymptomatic individuals," which is essential to prevent the spread of infections and key for an economic revival. It is also a discussion on a new realm that will eventually be named "social testing."

There is a month-and-a-half gap between the chosen dates, June 15 and July 30. But they are treated as the starting point and the peak of the same trend. Programs in focus are *Morning Show* and *News Watch 9*, whose stances for local and central government policies are slightly different.

June 15 (Mon.) Mass infections in Kabukicho, Shinjuku [Theme] How to frame an "outbreak" in Shinjuku?

News of the day

* Temperatures exceeded 35 degrees Celsius in many parts of Japan

* 72 new cases were confirmed nationwide, bringing the total to 17,590

* 48 people were confirmed to have tested positive in Tokyo. Of them, 20 were employees

of a host club in Shinjuku's Kabukicho district

* 72 cases were confirmed at a wholesale food market in Beijing

* Sports teams at public schools in Tokyo, Osaka, etc. resumed activities

Program in focus: Morning Show, News Watch 9

Tokyo confirmed more than 40 daily new cases for the first time since May 5 the day before. The number for this day was even higher. *Morning Show* and *News Watch 9* took contrasting approaches to report this news.

Amid hope for "economic revival"

News Watch 9 spent the first 12 minutes on special coverage on the announcement by Defense Minister Kono Taro that the Defense Ministry is suspending the planned deployment of the Aegis Ashore missile defense system. After that, the program allocated 25 minutes 30 seconds on coronavirus-related stories. This accounted for 42.5% of its broadcasting time, and most of them were about an economic revival. Ahead of the lifting of restrictions on cross-prefectural travels on June 19, the program featured popular tourist spots around the country and the travel industry that were having high hopes for business improvement. It also introduced how France, Italy, Germany and Spain were

working to revive their tourism industries after restrictions on cross-border travels within the European Union were eased. Discussions at the Japanese Diet on the subsidy program for sustaining businesses, employment measures and the Go To campaign were also featured.

News Watch 9 spent only three minutes on infection-related stories, including talks in the studio. One minute 30 seconds were about PCR tests, accounting only 2.5% of the broadcasting time. The entire part can be transcribed here:

Narrator: 72 new cases are confirmed nationwide today, and 48 of them are in Tokyo. 20 out of the 48 are people in their 20s and 30s who work for a host club in an entertainment district in Shinjuku Ward who had taken mass testing. Also, three people linked to another drinking establishment where staff and guests come into close contact tested positive. 23 of the total are related to nightlife districts. The number of new cases has exceeded 40 for two days in a row. An expert has this to say about the risk of further spread of infections:

Hamada Atsuo: One-third or more of the cases were found after people in the nightlife district in Shinjuku took the test even if they didn't have symptoms. Looking at the current situation, I don't think the infections in the district will immediately turn into community infection.

Hamada Atsuo is professor of Tokyo Medical University and infectious disease expert who often appears on NHK programs. But his forecast turned out to be wrong. The infections in Kabukicho spread to other entertainment districts in Tokyo including Ikebukuro and those in other parts of Japan such as Sapporo, Saitama, Yokohama, Nagoya, Osaka, Fukuoka and Okinawa. Infections also spread to workplaces and homes through dining-out.

Infections through asymptomatic virus carriers

The coverage of PCR tests on *Morning Show* accounted for 16% the broadcasting time on this day, not particularly high for the program. The top story was an explosion of a tank truck on an expressway in China's Zhejiang Province. Coronavirus-related stories began 12 minutes after the broadcast started.

The program featured a news conference by Tokyo Governor Koike the day before. Unlike *News Watch 9* that used data made available earlier in the day, *Morning Show* used footage and data of June 14.

Koike: 18 (out of 47 people) tested positive in mass testing conducted by Shinjuku Ward. The figure is the result of very aggressive testing, so what this figure means is quite different from the meaning of figures in the past.

Hatori said Tokyo saw 47 new cases yesterday, the highest since the state of emergency was lifted. Okada Harue replied:

"Many of the 47 people are found in tests in a nightlife district. Some others are hospital inpatients. So we don't need to be overly concerned."

She was unusually easygoing. All regular commentators, who had been "lectured" by Okada for half a year, appeared in the program via video link. Hatori in the studio spoke to Tamagawa Toru, Ishihara Yoshizumi and Yamaguchi Mayu¹⁸ to deepen discussions. Okada called for more tests in Shinjuku and other entertainment districts. She proposed a method that would single out asymptomatic virus carriers by combining three types of tests: Antibody tests are conducted to staff of entertainment establishments. Then, those who test positive in antibody tests will take antigen tests, and those who test negative in antigen tests.

An antibody test uses blood samples to detect antibodies against the virus to see whether the person was infected in the past. It is mainly used for epidemiological surveys to see how far the infection has spread. An antigen test uses nasal swab or saliva samples to detect virus proteins. The test can be conducted only on people who have started showing symptoms. It is considered to be less accurate than a PCR test. But a PCR test takes time to extract virus genes. On the other hand, antibody and antigen tests can be done in 15 to 30 minutes.¹⁹ After reports of a virus resurgence and Black Lives Matter protests in the United States, the program returned to this topic.

Hatori resumed the discussion by using a panel.

"The WHO held a news conference last week and commented on the global spread of the infection. Asymptomatic virus carriers are said to be responsible for about 40% of the global cases. So asymptomatic virus carriers are becoming a key to contain the outbreak. An academic paper²⁰ that analyzes how infections spread has been published. Here are percentages of infections caused by people in different conditions. 46% are caused by presymptomatic carriers, while 38% are caused by symptomatic carriers. So individuals who were infected but did not start to show symptoms have a higher transmission rate. Let's see how likely people who never develop symptoms to transmit the virus. The percentage is 6%. And 10% from environmentally mediated transmission via contamination.

Japan's panel of experts already noticed virus transmission by asymptomatic carriers as early as in February and March. The WHO, the global authority of public health, finally recognized this in June.²¹ The program exhibited its good judgement by reporting this in connection with mass testing for host club staff in Kabukicho. It has been revealed that the experts intended to report that virus transmission from asymptomatic carriers was behind a cluster in Hokkaido in February, but the health ministry stopped them from doing so, saying that the report would cause a panic.²²

Okada responded Hatori's remark:

"Aggressive testing has found that most of the host club employees who tested positive had no symptoms. Infected young people tend to develop no symptoms. But in order to prevent them from transmitting the virus to senior citizens, an aggressive test scheme is needed. I'm sorry to call it by name, but anti-infection measures for Shinjuku should be taken swiftly because infections could spread to other areas."

Tamagawa followed, effectively declaring that he will lead subsequent discussions:

"It may not be a choice between keeping the economy running and curbing the infection. There may be a third way to achieve both. I think that mass testing now implemented in China can be an answer. At least it's not impossible to conduct PCR tests on 10 million residents of Wuhan. And the tests have found many asymptomatic virus carriers."

The other two programs

On this day, *Miyaneya* reported a meeting of the "Osaka Conference," a panel of Kansaibased experts that advises Governor Yoshimura. Some of the experts had extreme views, i.e. the peak-out (of the first wave) was around March 28, and the state of emergency and business restrictions introduced after the purported peak-out had no effect on curbing the outbreak. The highlight of *N Studio* was an interview of the owner of eight host clubs in Kabukicho. The owner was optimistic:

"I think that more customers will come once we take PCR tests and show that we are clean. An increasing number of nightlife establishments are likely to be willing to take the tests."

July 30 (Thur.)Okinawa, Osaka, Fukuoka...infections spread nationwideMore than 1,000 new cases were confirmed[Theme] How far should PCR tests expanded?: The impact of "Setagaya Model"

The increase in the number of cases in Japan will be later called the "second wave."²³ The daily number in Tokyo started to exceed 200 in July. The number fluctuated but continued to rise, and infections spread throughout the country. A cluster occurred at a small theater in Shinjuku, with 37 people tested positive and 850 people in close contact with them. Case counts increased at US military camps in Okinawa, dealing a blow to the local tourism industry. Infections also spread in Hokkaido, Saitama, Nagoya, Osaka, and Fukuoka etc. The capacity of PCR tests had increased since February and March, but in some regions public health centers were once again working at full capacity. Doctors who were concerned that the test scheme and medical services would be overwhelmed started

to issue warnings.

Professor Emeritus Kodama Tatsuhiko of the University of Tokyo's Research Center for Advanced Science and Technology started to appear on TV and draw attention. He first attracted attention after calling for, and implementing, the recovery of land in Fukushima Prefecture by removing radioactive substances that contaminated the soil in the wake of the 2011 accident at the Fukushima Daiichi nuclear power plant. As coronavirus infections spread, he formed a team and conducted more than 15,000 antibody tests. Kodama was a guest on *Morning Show* on July 9. He said Shinjuku had become an epicenter (of infections), and extensive tests should be conducted in wider areas to contain the outbreak. He proposed community-wide tests covering asymptomatic individuals. In the following week, he was summoned to the Diet as an unsworn witness. He made an emotional plea for starting tests immediately, proposing to use the pool method adopted by China, which enables a large number of samples to be tested at one time.

Inspired by Kodama's proposal, the mayor of Tokyo's Setagaya Ward, Hosaka Nobuto, proposed measures to expand PCR tests so that "anyone can take a test anytime, as many times as they like." He named the measures the "Setagaya Model" and promoted it on TV. *Morning Show* goes ahead of others

On July 30, *Morning Show* invited Hosaka via video link. Hatori and Tamagawa asked about details of the "Setagaya Model." Setagaya has a population of 920,000, the largest among the 23 wards in central Tokyo. The population is a little smaller than that of Kagawa Prefecture (950,000) but larger than that of Yamanashi Prefecture (810,000). Setagaya was conducting about 200 PCR tests a day. The positive rate started to rise in July. The seven-day average immediately before the broadcast was 12%. The ward confirmed record 47 new cases the day before.

Hosaka: In April, people had to wait for days before getting tested. So Setagaya Ward worked to ensure that people can take a test on the day they make an inquiry. We were able to do this, but it has become difficult to do so in the last seven or 10 days.

Hosaka said he had consulted Kodama and decided to introduce the pool method in which samples from multiple people will be mixed in test tubes and those that test positive will be re-tested, to enable mass testing. He also said automated test equipment will be installed near a test center set up by the local doctors' association. He argued that the daily number of PCR tests will increase to 2,000 to 3,000 (later the first-phase figure was revised down to 600). He also said around 23,000 people, including staff of nursing care homes, daycare centers and facilities for people with disabilities, whose work requires contact with others and is needed to maintain social functions can take PCR tests regularly. His proposal is to spend public funds on tests for people engaged in high-risk essential work even if they show no symptoms, expanding the eligibility that had been limited to people who have developed symptoms and those who had close contact with them. This kind of test is now called "social testing" to distinguish it from conventional medical tests. The central government later approved spending public funds for social testing, but it had not become an established term at this stage.

In Setagaya, PCR tests were conducted on three routes: by public health centers, by the doctors' association in the ward as insurance-covered medical treatment, and by fever departments at hospitals. The municipal government plans to use the test center set up by the doctors' association as the base, and outsource preparations for tests, taking samples, informing the results and interviewing infected people on their recent movements to the private sector to reduce the burden on public health centers.²⁴

The interview by Hatori and Tamagawa revealed that Hosaka was looking beyond "social testing." The mayor said he drew up the "Setagaya Model" by learning from what happened in New York State. A large number of people died there during the first wave. To contain the outbreak, the state allowed its residents to take PCR tests at test depots for free. In addition to hospital and nursing care home workers, people working at schools, hair salons and sports gyms can take tests regularly so they can prove that they test negative and continue their work. That's why Hosaka's catchphrase was "anytime, anyone, as many times as they like."

But his proposal hit a wall due to financial reasons. The centerpiece of his proposal is to introduce the pool method to drastically cut the cost, but the health ministry didn't approve the method. It made it difficult to conduct tests on anyone and as many times as they like.

Column 3 Discussions on the "Setagaya Model"

TV coverage of the "Setagaya Model" was described in detail in the main article. Here is a brief look at social media responses. The table shows chronological correspondences between TV and social media about discussions on the need for social testing symbolized by the "Setagaya Model."

Warning had been issued by July that curbing infections will be difficult when asymptomatic virus carriers do not take PCR tests and transmit the virus. The argument gradually became public knowledge through messages by University of Tokyo Professor Kodama Tatsuhiko and others. One of the occasions that is believed to make the issue known was Kodama's attendance at the Upper House Budget Committee on July 16. He described a method that makes mass testing possible. The committee session was broadcast on TV and tweets with clips from the broadcast attached were widely shared. There were multiple clip-attached tweets, and they were retweeted at least 23,000 times in total.

There was one notable development. After Setagaya Mayor Hosaka Nobuto, who was advised by Kodama, first talked about the plan to launch the "Setagaya Model" on a satellite channel program on July 28, the number of tweets that contained the "Setagaya Model" or "social testing" increased. Hosaka also spoke about the plan on a terrestrial channel on July 30. Analysis of tweets posted between July 28 and 30 that contained the two abovementioned words found that many users expressed support for the plan, although there were others who objected the plan. Discussions seems to have started on Twitter around this time.

Tweets that supported the plan included "It would be too late if we wait for the central government or the Tokyo Metropolitan Government to decide," or "The Tokyo Metropolitan Government and the central government should learn (from Setagaya)." They saw the plan as a challenge by a municipality against the central government or the Tokyo Metropolitan Government. This was partly because the satellite channel program carried a subtitle "Municipality rebels against the government's 'too slow' decision: Setagaya Model set in motion" to report the plan in the context of local versus central. Another twitter user wrote, "I have hopes for the model as the only way to make it possible to tackle an infectious disease while keeping the economy running."

Many tweets that expressed objection cast doubt on the plan's feasibility.

Examples include "The number of positive cases will increase when the test scheme is suddenly expanded. Can the ward find places to quarantine them?" and "I wonder whether the ward considers the possibility that by concentrating medical service resources on asymptomatic individuals, there would be no resources to spare for patients with moderate or severe symptoms." Others wrote, "Are there financial resources to continue conducting tests? If the ward expects support from nonprofit organizations from the start, it's unreliable," or "I appreciate the plan. But it won't succeed with Setagaya alone, because people from other areas will come and spread the infection."

Discussions on PCR tests on TV and social media had focused mainly on people who are showing symptoms. But since July, the importance of social testing, which aims to address potential factors for the infection, started to draw attention. The announcement of the "Setagaya Model" was the turning point of the discussions.

Date	TV	Social media
9-Jul	Kodama appeared on Morning Show, called for PCR tests for asymptomatic individuals	
From July 9		A tweet supporting his call with an attached clip was retweeted about 8,000 times
16-Jul	Kodama spoke at the Upper House as an unsworn witness. The session was broadcast by NHK. He mentioned the pool method that enables mass testing	
From July 16		Tweets with attached clips were retweeted about 23,000 times
28-Jul	Hosaka appeared on News 1930 (BS-TBS) and unveiled the "Setagaya Model"	
30-Jul	Hosaka appeared on Morning Show etc. via video link, spoke about the "Setagaya Model"	
From July 28	· · · · · · · · · · · · · · · · · · ·	"Social testing" spread on Twitter

.....

News Watch 9's focus

Around that time, *News Watch 9* was busy covering major news stories including the torrential rain in Kyushu. But the program kept its focus on asymptomatic virus carriers' role in spreading infections.

The program had a report on July 3 about Kitakyushu General Hospital, which had unknowingly accepted an asymptomatic patient to the intensive care unit and caused an in-house cluster. The report showed that the hospital now conducts antigen tests, whose results are available in 30 minutes, on all inpatients to detect asymptomatic carriers and avoid the collapse of its services. On July 6, the government's Covid-19 subcommittee, which replaced the panel of experts that was disbanded in June, held its first meeting. *News Watch 9* reported that the subcommittee's chairperson Omi Shigeru proposed to conduct PCR tests with public funds on people who show no symptoms but have high infection risks.

When Tokyo confirmed record 367 news cases on July 30, *News Watch 9* broadcast the news as the top story. Staff from the program visited a PCR test center in Tokyo's Kita Ward. A doctor explained that the daily number of tests the center handles surged to more than 80, and called for expanding the test scheme. As a related story, the program introduced that Setagaya Mayor Hosaka plans to outsource part of the operations of public health centers to other departments of the municipal government or to the private sector to reduce the burden on the centers and increase the number of tests. The report was about a backup for medical-purpose tests, and did not mention materializing "social testing" introduced by *Morning Show* or other initiatives. *News Watch 9* also reported that the Tokyo Medical Association, which had opened 40 PCR test centers, was considering increasing the number of medical institutions in Tokyo where people can take PCR tests with saliva samples to 1,400.

Vanguard and rearguard

For the third phase, the coverage of *Morning Show* on TV Asahi and NHK's *News Watch* 9 was compared. The two programs can be defined as the vanguard and the rearguard.

Morning Show found the keyword of "expanding tests for asymptomatic individuals" from the outbreak in Shinjuku. The program was the first to invite Kodama Tatsuhiko and Hosaka Nobuto, who later became key persons on the matter. It had discussed expanding PCR tests to asymptomatic individuals before other programs did, and when it sensed that the matter was becoming a real issue, the program embarked on the new framing of materializing "social testing."

On the other hand, *News Watch 9* had to handle natural disasters and the government's new challenge of reviving the economy after the state of emergency was lifted. It did not have room to decode a message hidden behind the Shinjuku outbreak. The production staff noticed the keyword of asymptomatic individuals, but did not make the matter the centerpiece of the program to start a campaign for testing such individuals. In that sense, *Morning Show* was the vanguard and *News Watch 9* was the rearguard.

The same tendency was seen in the first phase (February and March) when "test refugee" was the theme. *News Watch 9* did not lead other media or channels on this theme, although it did not miss out on scoops. It continued to be a player in agenda-setting and framing led by fact-centered *news 23* on TBS and *Morning Show* on TV Asahi that set the tone of discussions. In one sense, *News Watch 9* played a role of the rearguard, or an anchor to show how far facts and agendas have taken root in society and how local and central governments responded to them.

4. "Agenda-setting" of PCR tests and results of framing

This article has analyzed Japanese TV coverage of the new coronavirus, whose first case was reported in China in December 2019 and has spread throughout the world, by looking at the most critical and sustained theme: PCR tests. As stated in the beginning, the focus is to review how TV fulfilled the function of agenda-setting, which is as important for journalism as reporting and finding facts, and how social media responded to it. This chapter gives an assessment and an interim summary.

4-1. Correlations between TV programs Viewers' concerns

Everyone has to face the coronavirus outbreak as their own business. It's a theme close to home as well as global. Behind the problem of the poor PCR test scheme is the weakening of health and medical systems, such as the declining number of public health centers. It's a highbrow topic concerning a system. TV stations, especially commercial broadcasters that put priority on getting higher viewer ratings, would not have followed this topic for half a year in normal times. But they continued covering this topic like a campaign, although the volume of coverage fluctuated over time. This is probably because the limited availability of tests is a factor of concern when anyone can become infected. It has also been an issue (or a mystery) that has not been addressed despite promises by politicians and bureaucrats. Every time infections surged, people were worried that they would not be able to take a test and receive medical treatment.

Different TV stations broadcast programs with different direction styles and time slots. Here are the things the author found by watching them and analyzing their content.

Wide shows

The morning and afternoon wide shows subject to analysis have different orientations and tastes. But on both programs, non-experts and experts discussed and learned in a flat and friendly atmosphere, based on the facts from other media, including newspapers, TV and the Internet. They also continued and repeated discussions and learnings over a long period of time. The increasing number of TV viewers who had to stay at home was probably convinced by experts' analyses. They also may have accepted remarks by non-expert commentators who include former athletes and health-conscious TV personalities and editors that suited them, and rejected remarks that didn't suit them, to convince themselves in how to deal with the unknown virus. *Morning Show* is a wide show and does not have to cover daily news. So it focused on PCR tests that attracted viewers' interest from an early stage and covered the topic extensively and led discussions, although it sometimes courted controversy. The program made a large contribution.

Lifestyle program

Late-afternoon lifestyle program *N Studio* broadcast live news conferences by the Tokyo governor and other politicians, accompanied by experts' comments to highlight the focus of the situation. It also made use of its three-hour broadcasting time to provide information on clothing, food and home that meet the demand from homemakers. The program stood out by keeping focus on the feel of ordinary life and people's sentiments that tend to be lost in the life under the pandemic.

Newscaster-presented program

Nighttime programs presented by newscasters have the advantage of being able to spend the whole day gathering news. Although their news-gathering activities were restricted to prevent infections, the programs tried to find as many facts as possible. NHK seemed to be cautious about reporting PCR tests, which leads to criticizing the government, while TBS actively looked into alternatives. Despite their differences, the facts they reported were quoted by wide shows and social media, providing the basis for discussions.

Programs in the three different categories utilized different functions – allocating much time for discussions²⁵, live reports and finding facts - that suited their conditions, and contributed to invigorating reports related to the coronavirus and PCR tests.

4-2. Reactions on social media

Analyzing tweets has found that the programs chosen for the survey activated the sensor of Twitter users who didn't watch them, generating support, objection, criticism and even hatred. Their responses were mentioned, quoted or provided topics for conversation in the programs in various forms.

For instance, some of the topics framed by TV, such "test refugee" and the "Setagaya Model," were widely tweeted and retweeted, helping invigorate discussions on a topic set as an agenda. On social media, the function to attach videos to posts and share them with other users has significantly advanced in recent years. This has drastically increased

engagement between TV and social media. This was symbolized by seriously ill patients or bereaved families of patients who posted videos via their smartphones or streamed in real-time, and their footage were shared globally. Also, celebrities around the world sent their songs or messages via social media. Some of them were broadcast on TV and had an impact on many people.

At the same time, a doctor who called for the expansion of PCR tests became a target of criticism on Twitter and received telephone many calls from people who opposed him. The incident highlighted the risk that social media users can cut part of a comment out of context and post it on their accounts or give distorted framing to incite blind faith or violence.

It has been found that there are many challenges to be overcome in correlations between TV and social media.

Meanwhile, theoretical researches on mass media's "agenda-setting," which this article has used as a reference concept, started in the 1970s by analyzing media coverage of US elections. Takeshita says verifying the effect of "agenda-setting" at that time was conducted based on "analysis of the content of media reporting" and "surveys on the mindset of information recipients" such as opinion polls (Takeshita 2008, p38). This article conducted the former, but not the latter.

However, the media environment 50 years ago was on-way communication with newspapers, TV and radio at the center. The recipients have changed drastically in the social media era due to the proliferation of the Internet. Now any recipient can become a sender of information, having the ability to exercise influence on others thorough social media. In response to this change, the term "audience frames" has been introduced to the realm of framing study. Interactions between audience frames and conventional media frames have become a subject of research.²⁶

This article, which analyzes interactions between TV and social media over coronavirusrelated coverage, stands on the edge of this new research realm.

4-3. Framing for solving issues

Lastly, the author will assess the real-life result of setting PCR tests set as an agenda by TV and social media.

A symbolic scene can be found on *Morning Show* on October 14. Tamagawa Toru has a regular segment every Thursday called "Somo Somo Soken." The section invited health minister Tamura Norihisa, who was appointed to the post when Prime Minister Suga Yoshihide's Cabinet was launched in September. He and Tamagawa discussed the expansion of PCR tests.

Tamura had served as health minister before, so he is well-versed in measures against infectious diseases. Since the coronavirus pandemic began, he became the head of the Liberal Democratic Party's Covid-19 taskforce, and had appeared on various TV programs. He heads the ministry that accused Morning Show of making a "mistake" on Twitter but whose accusation backfired. His appearance on the program to face Tamagawa showed how widely PCR tests had been discussed on the media, taken root in society and how system and policy had changed over the half-year period. Above all, these were reflected on the attitude of the two people. Tamagawa used a panel and asked Tamura how far the government would expand tests on asymptomatic individuals. Tamura, though speaking fast, tried to answer the question sincerely. He explained that medical and nursing care facility staff in regions where infections are spreading are considered to be asymptomatic individuals with "high infection risks" who would be eligible for publicly-funded PCR tests along with symptomatic individuals, but it's up to local governments to decide. He also said local governments will decide whether to conduct far-reaching tests in particular communities, adding that a forcible test like the one in Wuhan, where the city's 10 million residents were forced to take tests, will not be conducted because Japan respects human rights. Tamura's comments revealed the outline of the government's "social testing" and beyond.

"You say the expansion is a matter of course, but there must be people who disagree," Tamagawa said. "There are people (in and around the health ministry) who are polar opposite of you, Mr. Tamagawa, but we will talk to them and they will understand that expanding tests is necessary. We will conduct tests on people who show no symptoms," replied Tamura.

The minister went on to say that the government plans to increase the capacity of antigen tests to 200,000 cases per day to prepare for a possible double outbreak of seasonal flu and the coronavirus in winter. It was a moment that indicated the health ministry may change its policy after having asked members of the expert panel not to disclose the fact that asymptomatic individuals can transmit the virus, possibly because it didn't want the public to know the limit of medical service capacity.

The conversation was the fruit the program produced by constantly calling for the improvement of the situation, despite receiving criticism from some Twitter users who labeled it as "anti-Japan," "PCR fanatic" or "traitor" as well as from newspaper reporters, media researchers and manga artists who accused the program of fueling public concerns. It was also the fruit brought by other programs that followed *Morning Show* and social media reactions.

Conclusion

In closing this article, the main findings of this study are listed here.

Part 1 of this report provided a comprehensive and broad-perspective review on TV coverage of the coronavirus pandemic and social media responses through analyzing the meta data of 25 programs between January and the end of July. Here are what the review found:

* Lifestyle programs, wide shows and newscaster-presented programs in the morning, afternoon and nighttime spent much time reporting coronavirus-related stories. Viewer ratings increased for most of the programs.

* TV handled information from social media to a certain degree, especially information from Twitter.

* Tweets about TV coverage of the coronavirus accounted for only around 1% of the total,

but users actively responded to some of the themes.

* Among various topics, TV continuously reported on PCR tests, masks and voluntary restraint. Twitter users posted comments on these matters and shared them.

Part 2 reviewed TV coverage on PCR tests from the perspective of "agenda-setting," and analyzed Twitter responses. Findings are listed below:

* In February, many people wanted to take a test but could not. TV stations called for expanding the test scheme, setting an agenda.

* Social media posts on the matter increased and they were widely shared. The term "test refugee" was coined. Behind this was the improvement of video-posting functions on social media that enables users to cut out part of TV program footage and upload it on social media.

* In March, objections to expanding the test scheme spread. Opponents said conducting more tests would lead to the collapse of medical services. Attacks on programs that called for the expansion started on the Internet. Serious cases of personal attacks involving intentional video-editing occurred.

* Analysis of Twitter users found that posts by frequent users are not necessarily widely shared. Users whose posts are widely shared are not always famous people. Rather, they are people who can post messages about matters others want to know in precise and empathic ways.

* When the state of emergency was in place in April and May, both TV and social media focused on the deaths of famous people and publicity stunt by politicians. But when the second wave hit in June and July, TV and social media actively discussed "social testing," which means conducting tests on medical and nursing care staff who have high risks of getting the virus even if they show no symptoms. The discussions made the government take action.

The findings confirmed that in coronavirus-hit Japan in 2020, the inter-media society in which TV and social media interact had a presence and held publicness-based discussions to help address social issues. However, distorted framing brought in by social media and social divisions as well as TV stations' tendency to be susceptible to framing by politicians came to light. That means interactions come with various challenges.

Moves toward new communication in the future have been found in the extraordinary situation brought on by the coronavirus pandemic. There is a need to continue careful monitoring to see how it will reemerge under what situation.

When this article is completed on December 10, 2020, no end is in sight for the virus resurgence in Japan, which became apparent in November following Europe and the United States. The phrases "third wave" and "record high" are on newspaper pages and TV screens. The media are reporting that the surge in the number of seriously ill patients is putting severe strain on medical services. Good news is that vaccines developed by pharmaceutical companies in the US and elsewhere have been rolled out, but the outlook remains uncertain. The author wants to conclude this article by saying that correlations between TV and social media over coronavirus-related coverage continue evolving.

⁶ Reports by Independent Web Journal on March 26 and 29, 2020, etc.

https://iwj.co.jp/

NIID initially did not recognize the need for mass testing and developed a time-consuming home-

brew gene testing method. A home-brew reagent was also needed before outsourcing tests, but it also

took much time and manpower. The article argued that this is why PCR tests were not outsourced to

the private sector.

https://bio.nikkeibp.co.jp/atcl/news/p1/20/02/28/06625/

¹ "As a result of losing recipients to smaller, decentralized new media and information sources, the news media's agenda-setting function will decline." (Shaw. D. L., Hamm, B.J. 1997), Takeshita Toshio (2008), *Zohoban Media no Gidai Settei Kinou* (Media's agenda-setting function, augmented edition), Gakubunsha, pp.239.

² Okada Harue (2020), *Shitte Okitai Kansensho Shingata Koronauirusu to 21 Seikigata Pandemikku* (Infectious diseases you should know: The new coronavirus and the 21st-century-style pandemic, new edition), Chikuma Shinsho pp.49, 50, etc.

³ Endo Kaoru (2018), "Kan Media Shakai ni Okeru Posuto Turusu Seiji to Shakai Kankei Shihon" (Post-truth politics and social capital in the inter-media society), pp.42, *Sosharu Media to Kokyosei* (Social Media and Publicness: Social Capital in Risky Society), University of Tokyo Press.

⁴ Severe Acute Respiratory Syndrome. A previously unknown infectious disease that caused severe pneumonia cases mainly in Asia in 2003.

⁵ The health ministry's guidelines advised people to take a PCR test when they meet one of the two conditions. But there were cases in which healthcare workers interpreted that only people who meet both conditions should take a test. (Asia Pacific Initiative (2020), *The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned*, pp.194.)

⁷ In an online article published on February 28, 2020, Nikkei Biotechnology & Business said the

⁸ Kami Masahiro, "'Kansensho Mura' Kaitai Seneba 'Nihon Iryo' ni Asu wa Nai" (Japan's medical

services will have no future unless the 'infectious disease village' is disbanded), Foresight, Shinchosha,

June 8, 2020.

https://www.fsight.jp/articles/-/46990

⁹ Ito Takashi is professor of Doshisha University Faculty of Social Studies. His books include *Janarizumu no Seiji Shakaigaku – Hodo ga Shakai wo Ugokasu Mekanizumu* (Political sociology of journalism: the mechanism of how news reporting moves society), published in 2010 by Sekaishishosha.

¹⁰ Otani Yoshio (2020), *Haien wo Tadashiku Osoreru* (Fearing pneumonia correctly), Nikkei Business Publications, pp38, 39, 40.

¹¹ The same article as in Footnote 3, pp28.

 12 The health ministry conducted antibody tests in April on 1,000 people who donated blood in Tokyo and six prefectures in the Tohoku region. The result was announced in May. The positive rate was 0.6% in Tokyo and 0.4% in Tohoku.

¹³ The two NHK Special episodes Tamagawa mentioned are "Pandemikku tono Tatakai – Kansen

Kakudai wa Fujikomerareruka (Fight against a pandemic: Can the spread of infections be curbed?)"

broadcast on March 22, and "Shingata Koronauirusu Setogiwa no Kobo - Kansen Kakudai Soshi

Saizensen kara no Hokoku (Fight against the coronavirus at a critical moment: Report from the

frontline on the efforts to prevent the spread of infection)" broadcast on April 11. Professor Oshitani's

remarks can be found below:

http://www/nhk/or/jp/special/plus/article/20200326/index.html

¹⁴ The "Osaka Model" includes the launch of an "inpatient follow-up center" in March to allocate patients to hospitals depending on their conditions to help secure an enough number of beds, and designating one hospital in May to exclusively treat Covid-19 patients with moderate symptoms. But it has been reported that the hospital faces staff shortage because many doctors and nurses have resigned.

¹⁵ Osaka Governor Yoshimura held a hastily arranged news conference on August 4. He said gargle mouthwash containing povidone iodine can reduce the amount of the coronavirus in the mouth, citing a study by the Osaka Habikino Medical Center and urging people to practice gargling. The news conference prompted panic-buying of such mouthwash. Experts cast doubt on the effect because the study was not even published. Yoshimura met reporters the following day to play down his remark.

¹⁶ 28-year-old Shobushi, a wrestler in the Sandanme division, developed a fever of 38 degrees Celsius between April 4 and 5. Telephone calls to a local public health center didn't go through because the line was busy. He was turned away by several hospitals. He started having blood sputum. He was admitted to a hospital in Tokyo on April 8, transferred to another where he took a PCR test on April 10 and tested positive. He was treated in an intensive care unit from April 19, but died on May 13. He had diabetes.

¹⁷ Ohmagari Norio, director of the Disease Control Center at the National Center for Global Health and Medicine, told a news conference on September 30 that compared to the first domestic wave (until May 2020), the fatality rate fell in all age group in the second wave that happened after June. He said the time between the start of symptoms and diagnosis shortened, enabling medical personnel to treat patients while their conditions are still mild and to prevent them from becoming seriously ill.

¹⁸ Ishihara Yoshizumi is an actor and the second son of novelist and former Tokyo governor

Ishihara Shintaro. Yamaguchi Mayu is a former Finance Ministry official. She is also a New York State lawyer and an associate professor of Shinshu University.

¹⁹ See Footnote 10, pp67, 68.

²⁰ "Quantifying SARS-Cov-2 transmission suggests epidemic control with digital contact tracing" is a paper by a team of researchers from Oxford University and others. It was published on US journal *Science* in May 2020. The team analyzed data on 40 cluster infection cases from around the world.

²¹ On June 9, a WHO official in charge of crisis response and technical issues said in an answer to a

question by a member of the public that around 40% of transmission may be due to asymptomatic

virus carriers. NHK NEWS WEB, June 10, 2020.

https://www3.nhk.or.jp/news/html/20200610/k100124644971000.htlm?utm_int=news

²² Kawai Kaori, "Bunsuirei – Dokyumento Korona Taisaku Senmonka Kaigi Danikai Kurasuta Taisaku to 'Joho no Kabe' (The watershed: Documentary on the Covid-19 expert panel Part 2 Anticluster measures and "information barrier")", *Sekai*, November 2020, pp168, 169.

²³ On August 19, 2020, President of the Japanese Association of Infectious Diseases Tateda Kazuhiro said at the start of the association's meeting that "Japan is in the middle of the second wave." NHK and other media outlets started to use "second wave" around this time, but the health ministry said it cannot comment because it had not defined the term. Economic Revitalization Minister Nishimura Yasutoshi, who is in charge of the government's coronavirus responses, said the situation is different from that of when the state of emergency was declared.

²⁴ "Tokubetsu Intabyu PCR Kensa no Ohaba Kakudai wo Mezasu 'Setagaya Moderu' – Shingata Koronauirusu ni Tokka Shita Tokubetsu Sochiho wo – Hosaka Nobuto (Special Interview: The "Setagaya Model" aims to substantially expand the PCR test scheme – Setagaya Mayor Hosaka Nobuto calls for special legislation for responding to Covid-19)", *Masukomi Shimin*, October 2020, pp60.

²⁵ Although it was not live like wide shows, NHK broadcast a pre-recorded and edited footage of discussions by 10 people including a doctor, an expert and a TV personality in an NHK Special episode "Reiwa Mirai Kaigi: Shingata Korona no Fuan Dou Mukiau? (Future conference in Reiwa Era: How should we cope with coronavirus-related anxieties?)".

²⁶ Oishi Yutaka (2005), *Janarizumu to Media Gensetu* (Journalism and media discourse), Keiso Shobo, pp112, 113.