3 **The Outbreak of Infectious Disease and Trust in Government in Asian Countries**

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Abstract

During infectious disease outbreaks, governments issue various public directives to curb disease spread. Disease containment measures sometimes include strong behavioural restrictions. Compliance with these public health restrictions depends on people's trust in government. This chapter applies statistical analysis to study the impact of the SARS outbreak on the levels of public trust in government in Asia. The analysis shows that the 2003 SARS outbreak reduced people's trust in government in Asian countries. It also indicates that this loss was mitigated when there was collaboration between the government and the World Health Organization (WHO). This finding suggests that a collaborative relationship with international organizations such as the WHO encourages the public to comply with restrictive measures implemented by governments.

Keywords: public trust, World Health Organization (WHO), SARS, public health, political legitimacy, East and Southeast Asia

Introduction

What is the relationship between the outbreak of an infectious disease and public trust in government in Asian countries? The relationship should be examined because it has important policy implications. During the outbreak of an infectious disease, governments issue various public directives to curb its spread. These can include not only individual preventive behaviour, such as hand hygiene and mask wearing, but also social behavioural restrictions

including quarantine and store closures. Whether these restrictions are followed (i.e., whether people follow the government's instructions) depends to a large degree on trust in government. In countries where an infectious disease outbreak reduces trust in the government, restrictions will not be effective to prevent the spread of disease, whereas in countries where public trust in government is higher, the spread will be controlled more easily.

This chapter examines how infectious disease outbreaks affect public trust in government in Asian countries, focusing on the 2003 SARS epidemic as a case study. Specifically, the chapter clarifies how social trust changed in the affected countries after the serious SARS epidemic. It also illustrates how the collaboration between the respective government and health-related organizations such as the World Health Organization (WHO) affects the level of trust. Networking with the WHO may contribute to alleviating failing public trust in government if the organization successfully shares crucial information with national governments.

Many academic studies suggest that unexpected negative shocks damage trust in governments. These unexpected shocks include natural disasters (Lazarev et al. 2014, 641; Nicholls and Picou 2013, 344), financial crises (Armington and Guthmann 2014, 423; Kroknes, Jakobsen, and Grønning 2015, 700), and infectious disease outbreaks (Sibley et al. 2020, 618; Kye and Hwang 2020, 1; van der Weerd et al. 2011, 1; Bangerter et al. 2012, 1). Recent studies regarding pandemics, however, show opposite results. Sibley et al. (2020, 618) found that trust in government improved during the first eighteen days of lockdown amid the COVID-19 outbreak in New Zealand. Using individual panel data, Kye and Hwang (2020, 1) also showed that the level of trust in government in South Korea increased after the COVID-19 outbreak. In the case of the 2009 influenza (H1N1) pandemic, public trust in government was high in the early phase of the outbreak but decreased in the latter phase of the pandemic (van der Weerd et al. 2011, 1; Bangerter et al. 2012, 1).

These contrasting studies demonstrate that the level of trust in government varies depending on the type of negative shock as well as the response provided by the government to the crisis. In the case of infectious disease outbreaks, it is necessary for the government to assess correct data, understand scientific evidence, and provide reliable information to the public. Most people in society have limited medical knowledge, which can cause an increase in anxiety. People may believe misleading emotional information more than scientific evidence. This could lead to non-compliance with public health measures, or to secondary effects of the outbreak such as increases in violent crimes and mental health problems.

When a national government seeks to provide effective assessment and transmission of reliable information, the WHO can play an important role.

As will be explained in the next section, in the early stages of the 2003 SARS epidemic the WHO launched a collaborative research project on SARS diagnostics. This established an international network among research centres to share outcomes of investigations of clinical samples of SARS cases in real time. The members of this collaborative research effort were research institutes, parts of universities or academies around the world. During the 2003 SARS crisis, those countries with a research group that joined this WHO project could get prompt and accurate information. As such, it was easier for these countries with a WHO research collaboration to publish scientific evidence quickly and urge their populations to adopt appropriate preventive behaviour. These countries could also devise effective policies to mitigate the spread of infection based on reliable information.

The discussion in this chapter is based on a statistical investigation of a unique dataset containing information on public levels of trust in different Asian countries before and after the 2003 SARS epidemic. Our empirical results show that, after the onset of the SARS epidemic, public trust in government declined in those countries that were seriously affected. The deterioration in trust, however, was alleviated in countries hosting a WHO Collaborating Centre in a domestic research institute. The next section summarizes how the 2003 SARS epidemic affected Asian countries and how the governments coped with the outbreak.

2003 SARS Epidemic and Reactions by Governments and the WHO

SARS was the first severe novel infectious disease of the 21st century, affecting 26 countries (29 regions) and causing 8096 cases and 774 deaths (WHO 2003a, 1, 2005). According to the WHO (2003a, 1), the novel coronavirus emerged in Guangdong Province, China, in November 2002. However, details about this infectious disease were not reported to the WHO until 11 February 2003. Meanwhile, the virus began to spread outside the province, causing infection clusters (for example, those in a Hong Kong hotel). The virus then spread to other countries via infected but undiagnosed travellers.

The first case was identified in Hanoi, Vietnam, on 26 February 2003. This case was tied to the infection cluster in the hotel in Hong Kong. Soon after the first reported case in Vietnam, the virus spread to other parts of Asia. The WHO issued a global epidemic alert on 12 March 2003, and identified a newly discovered coronavirus as its cause. The WHO then issued safety guidelines and warnings against traveling to the infected regions, including Guangdong, Hong Kong, Taiwan, and Toronto, Canada. At the same time,

Table 3.1 Socio-Demographics, SARS Epidemiological Data, and the Responses of Governments and the WHO in Target Regions

	Num- ber of SARS deaths & last case (week)	Length between first case & last case (week)	Government responses	WHO responses	Joint research with the WHO	Popula- tion (2003)	GDP per capita (USD, 2003)	Life ex- pectancy at birth (year, 2003)	World top 500 universi- ties (2003)	Govern- ment type
Singapore	33	10	<ul style="list-style-type: none">- Closed a large wholesale market where a cluster infection occurred and issued 1200 home quarantine orders- Used highly sensitive case definition for surveillance- Worked with military forces to conduct contact tracing and thoroughly enforce home quarantines- Conducted screenings at airport and seaports- Concentrated patients at a single SARS-designated hospital- Disallowed visitors at all public hospitals- Began a private ambulance service to transport all possible cases to the SARS-designated hospital- Identified the sources of all but one case that occurred in the country- Imposed a mandatory 14-day quarantine on all incoming travelers from China, Hong Kong, Singapore, Macau, and Toronto (April 28, 2003)- Upgraded its surveillance system- Implemented infection control at hospitals- Instituted a logistics system for efficient delivery of protective equipment- Began mass education campaigns- Passed a new law to punish for delays in case reporting- Established fever clinics	<ul style="list-style-type: none">- Video conference with Singaporean officials (May 12, 2003)	✓	4.1 million	23,730	79.0	✓	parlia- mentary republic
Taiwan	37	16	<ul style="list-style-type: none">- Established a field team (March 24, 2003)- Expert team arrived in Taipei (May 3, 2003)- Disclosed delays in case reporting that caused ambiguity in daily case information because both old and new cases had been reported together (May 22, 2003)			22.6 million	14,066	76.5	✓	semi-pres- idential republic

Num- ber of SARS deaths	Length between first case & last case (week)	Government responses	WHO responses	Joint research with the WHO	Popula- tion (2003)	GDP per capita (USD, 2003)	Life ex- pectancy at birth (year, 2003)	World top 500 universi- ties (2003)	Govern- ment type
		<ul style="list-style-type: none">- Recognized the outbreak early- Consolidated SARS patients at a single hospital- Implemented strict infection control- Conducted diligent contact tracing- Investigated all rumored cases	<ul style="list-style-type: none">- Expert team assisted health authorities (March 16, 2003)- Sent 300 Kilograms of protective equipment and medical supplies to Hanoi (March 24, 2003)- Established a field team (March 24, 2003)						
Vietnam	5	7			82.3 million	481	73.7		communist state
Indonesia	0	2			220.3 million	1,066	66.6		presidential republic
Japan	0			✓	127.7 million	34,808	81.8	✓	parliamentary constitutional monarchy
Malaysia	2	6			24.7 million	4,462	73.2		parliamentary constitutional monarchy
Philippines	2	10			83 million	1,048	68.9		presidential republic
South Korea	0	2			47.9 million	14,673	77.2	✓	presidential republic
Thailand	2	11			64.6 million	2,359	76.5		constitutional monarchy

Sources: WHO (2003a, 2004, 2005), The World Bank (2021a, b, c), DGBAS (2021a, b, c), Ministry of Health and Welfare in Taiwan (2018), Shanghai Ranking Consultancy (2003), CIA (2021).

the WHO began investigations in mainland China in March and then in April reported on the infection situation, giving more specific numbers (WHO 2003a). For example, on 16 April the WHO warned that the number of people infected could be five times higher than the number reported by the Chinese government (WHO 2003b). On 7 May, the WHO gave an estimated case fatality rate, indicating that SARS mortality was quite high. The WHO eventually declared the end of the epidemic on 5 July 2003.

Table 3.1 summarizes the responses to SARS of different countries or regions, listing both SARS epidemiological data and the responses by governments and the WHO to the cases examined in this chapter. There are several notable points in the table.

First, the severity and duration of SARS infections varied among countries (see first and second columns). We categorized a group of countries and regions as being 'seriously affected', where these had many fatalities and a lengthy infection period. These places include China, Hong Kong, Singapore, Taiwan, and Vietnam. The remaining countries, Indonesia, Japan, Malaysia, the Philippines, South Korea, and Thailand, were categorized as a 'non-seriously affected' group.

Second, within the seriously affected group, the socio-demographics of the countries/regions are diverse; some possess good economic, health, and education conditions, while others do not. Political systems also differ within this group.

Third, measures taken by the governments varied among countries in the seriously affected group, especially regarding information dissemination. Singapore and Hong Kong seemed to have conveyed infection information to the public promptly, while Taiwan was criticized for a delay in case reporting. Although China was also criticized for concealing or not disclosing infection cases during the initial outbreak, the Chinese authorities changed this approach later on and provided the WHO with daily information about cases and deaths by province.

Fourth, the degree of collaboration with the WHO also differed among countries/regions. In the seriously affected group, for example, Vietnam's government collaborated closely with the WHO to control the outbreak. In contrast, the Chinese government only began working closely with the WHO and introduced a series of responses after the global alert in March.

There was variation in the amount of collaboration between these countries/regions and the WHO. The WHO issued a global alert about a newly identified coronavirus on 12 March 2003. At the same time, it also launched a collaborative centre research project on SARS. The purpose of this research network was to detect the SARS agent and to develop a diagnostic test. The laboratories that joined this research project shared

samples and investigation findings in real time, and their findings were validated immediately in several laboratories (WHO 2003c). The research network was comprised of eleven laboratories in nine countries.

Table 3.1 illustrates two important points. First, the research collaboration involved countries and regions that were both more severely and less severely affected by the SARS outbreak. A Japanese laboratory joined the project even though Japan was not severely hit by SARS. Several laboratories in China joined the project, while none in Vietnam did, although both countries were seriously affected.

Second, the research collaboration did not necessarily involve only economically and/or scientifically developed countries/regions. South Korea and Taiwan did not participate in the collaboration, despite having a comparatively high gross domestic product (GDP) per capita and highly ranked universities. Chinese institutes joined the project, although China's GDP per capita was relatively low in 2003 compared to other countries. The next part of this chapter presents the empirical strategy that we have used and describes the data we have analysed to study public levels of trust in government during the SARS epidemic.

Methodology and Data

This chapter addresses two research questions regarding the 2003 SARS epidemic:

- 1 Did the SARS epidemic lead to a deterioration in the public's trust in government in Asian countries?
- 2 Did research collaboration with the WHO mitigate the loss of social trust?

These questions were answered based on two kinds of empirical analysis. The first empirical analysis used the 'Difference in Differences' (DID) method. This takes advantage of the unexpected and sudden spread of SARS in early 2003 (November 2002-February 2003), and the large differences in infection status among Asian countries. To employ the DID method to quantify the impact of the epidemic on social trust, we used information about both *SARS-affected* and *SARS-non-affected* groups before and after the epidemic. *SARS-affected* countries and regions are defined as those that had local SARS transmission by the time the WHO issued its global SARS epidemic alert (WHO 2003d). As defined in the previous section, these include China, Hong Kong, Singapore, Taiwan, and Vietnam. Indonesia, Japan, Malaysia, the Philippines, South Korea, and Thailand are defined as *SARS-non-affected*. In a DID framework, the former is referred to as the 'treated' group and the latter as the 'control' group.

We used data about East and Southeast Asia from the World Values Survey 1993–2014.¹ We selected this sample period to balance the number of years before and after the 2003 epidemic. This survey directly asked respondents about their level of trust in government and collected respondents' personal characteristics. This allowed us to analyse the impact of the SARS outbreak on changes in trust levels, while eliminating differences caused by personal characteristics, such as age, socioeconomic conditions, medical environment, and lack of interest in politics. By tracking each country over multiple time frames, our analysis was also able to remove differences in trust in government caused by historical, cultural, and geographic circumstances, as well as the political system in the country/region. In other words, the analysis isolated and identified the impact of an infectious disease outbreak on public trust in government.

Level of trust, the dependent variable in this analysis, reflects individual trust in government. It was measured with the question: 'Could you tell me how much confidence you have in the government: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all?' Answers were recorded on a four-point scale, from 1 = none, to 4 = a great deal of confidence. Analysing the responses to this question, we examined whether the level of trust in government fell only in the treated countries/regions (or those labelled *SARS-affected*).

The second part of the analysis used a 'triple-difference' (DDD) method to examine how the impact of the epidemic on trust in government differed in countries with a WHO collaborating centre. Since decisions about the partnerships were made at the early stage of the SARS epidemic, we could examine whether becoming a member of the WHO joint research project mitigated the loss of trust in government.

Results

1 Negative Effect of the SARS Epidemic on Trust

Figure 3.1 shows the average level of trust in government. The black and striped bars show the average respondent's trust in the treatment and control

1 The World Values Survey (WVS) began in 1981 and consists of nationally representative samples of over 100 countries that use a common questionnaire (Inglehart et al. 2014). Many studies on social trust use WVS data (for example, see Knack and Keefer 1997, 1251; Mikucka et al. 2017, 1; Kentmen and Cin 2012, 971).

Figure 3.1 Average level of trust in sample governments

groups respectively. Figure 3.2 shows the average level of trust over time for the treatment and control groups. These figures show that the levels of trust in government were relatively high in the SARS-affected countries both before and after the outbreak. Low public trust, therefore, did not characterize SARS-affected countries. The striking feature in Figure 3.2 is a decline in trust only for the treatment group (or SARS-affected countries) from 1999-2002 to 2005-2008.² The loss of public trust in government can be attributed to the SARS outbreak.

This drop was further confirmed by our empirical examination using 29,320 observations. The DID analysis showed a statistically significant drop of trust in government only in the SARS-affected countries (treatment group) after the outbreak. The results are robust. The negative coefficients remained significant even after changing the estimation specifications.³

2 The occurrence and reoccurrence of the SARS epidemic corresponds to the timeframes between the two mentioned periods, which suggests the existence of ‘cut-off points’ before and after the epidemic was declared and eventually considered over. This is taken into account in our DID estimation.

3 The estimation results using the 29,320 observations in sample countries are:
$$STG_i = -0.268SARS \cdot Post_i + 0.786SARS_i + 0.208Post_i + 4.814$$

(0.021) (0.019) (0.013) (0.149)
Herein, STG_i is a measure of social trust in government of individual i ; $SARS_i$ is a dummy variable indicating

Figure 3.2 Average level of trust in the SARS-affected (treatment) and non-affected (control) groups

It is notable that people in the SARS-affected countries, compared with those in non-affected countries, tended to have higher public trust in government both before and after the SARS outbreak. Thus, the decrease in levels of trust found in the SARS-affected countries should not be attributed to country characteristics that existed even before the outbreak. It is also notable that there is an upward trend of public trust in government after 2003 in non-affected countries. As such, the drop in social trust after 2003 in the SARS-affected countries cannot be explained by a time trend. These highlight the negative impact of an infectious disease outbreak on trust in government: the loss of public trust in government was due to the epidemic.

What was the public attitude in general? We checked how the trust of members of the public in other people changed with the occurrence of SARS.

that a country was affected by SARS, which equals 1 if a respondent i lives in a SARS-affected country and 0 otherwise; is a dummy variable indicating the period after the SARS epidemic, which equals 1 if a survey year was in or after 2003, and 0 otherwise. The coefficient on the focal interaction term of is significant at the 1% significance level. Although the results are not shown in the equation, the estimate also controls for individual characteristics, such as age, gender, marital status, education, employment status, income level, and country's economic and medical environments (e.g., per capita GDP and life expectancy at birth) in the country where individual i lives, and country dummies. The country-level data are from the World Development Indicators (2020) and country-level indicators for Taiwan from Taiwan Health and Welfare Indicators (2018). The detailed results and descriptive statistics of the dataset are available upon request.

To do this, we also used the DID methodology, but replaced *public trust in government* with *trust in other people* as the dependent variable. We found that social trust in people increased significantly in SARS-affected countries after the outbreak. This contrasts with the previous result on public trust in government. In other words, the spread of SARS reduced public trust in government, whereas it raised social trust in people. People may feel the need for social connectedness in times of serious disease outbreaks, so as to allay their fear of unpredictable threats.

One possible explanation for the negative effect of SARS on public trust in government is that people's anxiety increases because of a lack of reliable information. For example, during the SARS epidemic Taiwan was criticized for delaying case reporting until mid-May, as mentioned in the previous section.

2 The Alleviating Effects of WHO Research Collaboration

This section examines how research collaboration with the WHO affected the decline in public trust in government after the epidemic. The investigation, using a DID approach, found a statistically significant difference in the effect of the SARS outbreak on trust in government for those countries/regions with and without research collaboration with the WHO. Specifically, the drop in public trust in government after the 2003 SARS outbreak was smaller in the countries hosting WHO collaborating centres.⁴

It might be argued that, rather than their participation in the WHO research collaboration, it was instead the presence of good research environments in these countries/regions that actually prevented people from losing their trust in government after the epidemic.

However, the findings of our study do not support this argument. First, people in well-developed societies with better health and educational environments are not likely to show higher trust in government. Second, the presence of a high-ranked university in a country (which can indicate a

4 Estimated results using the 29,320 observations in sample countries are:

$$\begin{aligned} \hat{STG}_i = & -0.54SARS \cdot Post_i + 0.52SARS \cdot Post_i \cdot Collab_i + 0.77SARS_i + 0.22Post_i \\ & (0.03) \quad (0.05) \quad (0.02) \quad (0.02) \quad (0.03) \\ & -0.08Collab \cdot SARS_i - 0.12Collab \cdot Post_i + 4.10, \\ & (0.04) \quad (0.03) \quad (0.15) \end{aligned}$$

where $Collab_i$ is a dummy variable with the value 1 if respondent i 's country has a research institute joining the WHO project network, and the value 0 otherwise. The equation includes control variables such as individual and country characteristics as well as country dummies, although the results are not reported here. The detailed results are available upon request.

well-developed scientific environment) was not found to have a statistically significant mitigating effect on the loss of trust in government after the SARS epidemic.⁵ In other words, joining the WHO collaborative centre, and not simply having advanced research institutes, played a key role in mitigating the loss of trust in government after the SARS epidemic.

What explains this finding? There are two possible reasons. The first reason is what we have labelled as *reputation effects*. The WHO is widely recognized as the main UN agency responsible for disease control and mitigation. It thus has greater legitimacy to act in times of disease outbreaks. National governments would also gain legitimacy and public trust when officials can claim that they 'have worked closely with the WHO'.

The second reason is what we have labelled as *information sharing effects*. One of the main aims of setting up the WHO research collaboration on SARS was to share the outcomes of investigations of clinical samples from actual cases in real time (WHO 2003c). Daily assessments of research results were based on diagnostic tests conducted in member institutes. Results of laboratory diagnostic tests are important for governments to understand the pathways of transmission and implement preventive measures. Laboratory results are equally crucial in convincing people that they must follow measures to stop the spread of diseases.

Importantly, our findings suggest that reputation effects cannot consistently explain the mitigating effect of WHO research collaboration on the loss of trust in government in the wake of the SARS epidemic. Cooperation between national governments and the WHO can be attained in many ways other than research collaboration. For example, as mentioned in the previous section, Vietnam had a good cooperative relationship with the WHO during the SARS outbreak. Vietnam, however, did not have any domestic institutes that joined a WHO collaborative research project. Because loss of trust in government was mitigated by research collaboration with the WHO specifically, rather than by a general cooperation with the WHO, in Vietnam's case there was no mitigating effect of its more general cooperation with the WHO. The data therefore do not suggest the existence of reputation effects for Vietnam.

However, information sharing effects also do not thoroughly explain our findings. The results indicate that rather than the existence of top scientific universities, the existence of the WHO research collaboration made the

5 High-ranked universities are those ranked in the top 500 (based on Academic Ranking of World Universities published in 2003). For estimations, we used a dummy variable taking the value 1 if a country has at least one high-ranked university, and 0 otherwise.

difference in mitigating loss of trust after the epidemic. Notably, there are several important aspects of information assessment. Information should be quickly transmitted, scientifically accurate, and credible. Information satisfying these aspects cannot be made available by domestic researchers if they cannot access patients' medical reports and if the country does not experience the outbreak. Furthermore, transmission of credible information cannot be guaranteed if the general public does not trust domestic research groups/institutes.

As such, information sharing under multilateral collaboration implemented by a third party that can be trusted is beneficial. A third party, such as the WHO, can call upon countries to join a research collaboration. The SARS-affected countries which engaged in WHO research collaboration successfully avoided epidemic-driven declines in trust in government after the pandemic, because they could obtain rapid, scientifically accurate, and credible information from the research network.

What are the implications of this for the COVID-19 pandemic? Our findings suggested that quick transmission of scientifically credible information by government collaboration with a third party such as the WHO would have a mitigating effect on the loss of trust in government. During the COVID-19 pandemic, the WHO has been less successful in providing a rapid response to preventing the spread of disease based on academically trustworthy findings.

During the SARS epidemic, the WHO international team of experts began investigations in the Chinese province of Guangdong on 3 April 2003 (three weeks after the WHO issued the global epidemic alert). The WHO then presented its official interim report on 9 April 2003 (WHO, 2003b). In contrast, when COVID-19 emerged in 2020, the WHO international team began investigations in the Chinese city of Wuhan on 29 January 2021 (one year after the WHO declared the virus a Public Health Emergency of International Concern). It then presented its official report on 30 March 2021 (WHO, 2021).

Scientifically credible information was not transmitted to the public in the early stages of the spread of COVID-19. Had there been information transmission through collaboration between countries and the WHO, this could have contributed to maintaining public trust in government, and helped governments to control the spread of COVID-19. Impeded collaboration can be harmful for both governments and the WHO. While national governments lose public trust as a result of impeded collaboration, the WHO is less able to effectively fulfil its role of helping to stop an outbreak turning into a pandemic.

Conclusion

This chapter has examined how the 2003 SARS epidemic affected public trust in government, and how this negative effect was mitigated by collaboration with the WHO. The analysis was based on the DID method, which takes advantage of the unexpected, sudden spread of SARS in early 2003, and the large differences in infection rates in Asian countries. This analysis used data for East and Southeast Asia from the World Values Survey 1993-2014, which included information on respondents' levels of trust in their respective governments, their personal attributes, and the countries or regions in which they resided. This allowed us to identify the impact of an infectious disease outbreak on public trust in government, eliminating differences caused by personal attributes, and countries' historical, cultural, and geographic circumstances.

The analysis showed that the 2003 SARS outbreak reduced people's trust in governments in Asian countries. Importantly, this does not mean that public trust in government was initially low in countries with high infection levels, or that public trust fell simply because of the severity of the SARS outbreak. This is neither consistent with a general uptrend in public trust levels, nor with the uptrend in social trust in people such as neighbours. Thus, it is possible to conclude that the outbreak of an infectious diseases damaged the level of trust in government. Overall, there was a clear effect of the SARS outbreak on the loss of public trust in government among Asian countries.

The analysis further showed that this loss was mitigated in the countries with research institutes participating in WHO research collaboration. The results highlight the importance of scientific collaboration with the WHO on health-related issues. Joint research with a third party, such as the WHO, enables swift dissemination of credible scientific information, and facilitates the promotion of appropriate preventive measures among the general public. Information sharing through collaboration may also allow national governments to implement effective policies. While many Asian governments lost public trust due to the SARS outbreak, prompt dissemination of accurate evidence-based information may have led to an increase in trust in other people in society.

By cooperating with international organizations such as the WHO to provide objective scientific evidence during the spread of an infectious disease, governments can effectively encourage people to take necessary action without losing public trust.

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