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New development: Administrative accountability and early responses during public health crises—lessons from Covid-19 in China

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ABSTRACT

The administrative accountability system in China has evolved during public health crises. By holding public officials accountable, the system hopes to improve their performance during emergencies. However, Covid-19 exposed an unexpected effect of the system. Instead of incentivizing public officials to take responsibility, it may have discouraged them from making timely, but potentially risky, decisions. Based on a holistic case analysis of the early response in Wuhan city, the authors demonstrate the lessons learnt and a way to improve the system. The case adds to an increasing academic literature on responsible risk-taking behaviours and decisions under uncertainties, extending the academic discussion by providing the critical contextual information for such behaviours and decisions in China.

IMPACT

Tolerating decision errors under uncertainty can improve early responses to public health emergencies like Covid-19 in China. This article shows that integrating an error-tolerance mechanism in an evolving accountability system can encourage responsible risk-taking by governmental officials. A well-designed error-tolerance mechanism that distinguishes between errors to tolerate and errors to punish can encourage proactive actions and prevent tardiness under threat of an incoming infectious disease. Readers who can benefit from this study include policy-makers and managers in government, especially those who work infectious disease prevention and response, emergency management, or any other public services in which decisions under uncertainties are common.

Keywords: Administrative accountability system; China; Covid-19 response; error-tolerance mechanism; SARS

Unlike public officials in democracies who answer to a variety of stakeholders, officials in China normally respond to their superior agencies. This top-down accountability is characterized with an emphasis on the aftermath of policy outcomes and punishment for decision errors made by individuals, with less consideration of decision circumstances. This increases public officials' risk-aversion and responsibility-shirking behaviours. In this article, we review how the accountability system in China has evolved in response to public health crises, especially infectious diseases, and then examine a likely unexpected effect of the system in responding to Covid-19. We conclude by proposing how to improve the system in responding to infectious diseases like Covid-19.

Public health crises and China's accountability system

Holding public officials accountable for their performance had a long history in ancient China. The contemporary accountability system evolved in response to public health crises since the 1980s. The outbreak of Hepatitis A that eventually infected more than 300,000 people in Shanghai and its neighbouring region, and caused 11 deaths, had the national attention in spring 1988 when Shanghai's municipal leaders were questioned and criticised by many representatives attending the Shanghai People's Congress and Political Consultative Conference—the two key political bodies in China. The issue of who should be responsible for the outbreak at the local government level and what punishments should be imposed were extensively discussed. Among the discussions was a proposal to dismiss a vice mayor responsible for public health in Shanghai. The outbreak also led to some of the early discussions that eventually became laws and regulations in public health (for example food

safety regulations). These laws and regulations later became the foundation for regulating public officials' responsibilities in the accountability system. This was one of first times in modern Chinse history when public officials' performances and responsibilities were clearly linked to the outcome of a public health crisis—a preliminary form of the contemporary administrative accountability practice in China which later became the part of the early response system to public health crises, especially infectious diseases (Wang & Li, 2020).

The early response system was tested in 2003 during the SARS outbreak. The 1988 experience was perhaps deep in the minds of government leaders at the time. Over 100 public officials were disciplined during SARS, including the health minister and vice mayor of Beijing, for delays in taking timely preventive actions in what was later known as an 'accountability storm' (People's Daily, 2008). Immediately after SARS, in 2004, the central government formally promulgated policies and regulations that hold public officials accountable for their responsibilities and performances. The accountability system, formally known now as the 'Accountability system for Chinese Communist Party and government leaders', has been amended several times since 2004, and it heavily targets negligence, poor performance, and criminal offences (such as corruption), by specifying who is accountable to whom and for what, and empowering and encouraging high-level governmental and disciplinary officials to take a zero-tolerance attitude toward major negligence and misconduct by local officials.

An unexpected effect of the system

Although the system has been credited for its achievements in anti-corruption and for administrative cost savings (Zhang & Chan, 2013), local officials perceive the system's punishments to be severe, and the threat of punishment can reduce their motivation to take responsible, but risky, actions at work (Ran, 2017). Officials convicted of offences can face

oral or written reprimands, demotion, relief of duties and, in more serious cases, criminal charges. In some cases, the system's overemphasis on punishment has increased officials' behaviours of evading, avoiding, or shifting responsibilities (Wang & Yan, 2019). The system's original purpose of improving responsibilities can result in evasion of responsibilities—a phenomenon known as 'accountability paradox' (Wang, 2014).

The stress on aftermath punishments, with limited attention to rewards, may lead to risk-aversion and responsibility-shirking among public officials. According to social psychologists, humans react to punishments more than rewards (Haidt, 2006). Negative experiences affect people much more than positive or neutral ones in terms of their learning and emotions. This negativity bias has been linked to risk-avoidance in decision-making. People tend to value potential costs higher than potential gains when facing decisions with uncertainties (Kahneman & Tversky, 1979), consequently, they try to avoid decision circumstances that expose them to risks and subject them to blame and criticism. Individuals prefer low-effort decisions to cope with accountability pressures, avoiding being held accountable to deal with ambiguous or conflicting expectations (Green et al., 2000).

Over time, the accountability pressure may have contributed to the weakening of local officials' work motives (Gao, 2020), which can be particularly serious during public health crises when decisions are often made with uncertainty and high risks. In 2016, in order to prevent responsibility-shirking and promote policy innovations, the central government in China issued policies that called for tolerating certain decision errors. However, it was not entirely clear how to implement the practice due to the difficulty of defining types of errors to be tolerated (Gu, 2020).

Covid-19 highlights the problems with the accountability system in the early response stage in Wuhan city. From late December 2019 to 23 January 2020, Wuhan municipal leaders (who received the first batch of information on the unknown disease no later than 31

December 2019) did not take immediate and substantive preventive actions—even after President Xi's instructions for disease prevention on 7 January. Instead, the city continued to proceed with large-crowd events, despite President Xi's and State Council's instruction on disease and migrant population control on 20 January 2020 (Caixin, 2020). It was not until 22 January 2020 that the provincial government of Hubei (of which Wuhan is the capital) announced a second-level public health emergency, which was updated to the first level only on 24 January 2020—one day behind several other jurisdictions.

Evidence suggests that the punishments in the accountability system can play a role in reporting delay of infections. There were cases where several medical workers received warnings and threats of severe punishment from the Wuhan Central Hospital Authority (Zhang et al., 2020). Moreover, there was evidence that Wuhan health officials could be engaged in restricting the circulation of information. Although the Wuhan Municipal Health Commission issued an emergency announcement of an 'unknown pneumonia' on 30 December and reported the discovery of 27 cases on 31 December 2019, it played down the severity of the infection by stating on 5 January 2020 that there was no human-to-human transmission and no infection among medical workers (Caixin, 2020). The commission reported no new cases from 11–17 January 2020, while the number of infections were possibly as high as 4,000 on 20 January 2020 (Imai et al., 2020). Despite these missteps on information circulation, the Wuhan mayor blamed a state law that requires authority to declare an emergency during an infectious disease outbreak (CCTV, 2020), although another state law clearly declares local governments' responsibilities of accurate and timely reporting to the higher-level agencies during emergencies (Gao & Yu 2020). (It is important to note that several officials, including the Communist Party Secretary of Wuhan, have since been removed from office by the central government.)

Improving the accountability system

Decisions under uncertainty are never easy—either in China or other countries. The issue in Wuhan, facing many unknowns at the outset of an outbreak, was the slow reaction from local authorities who perhaps underestimated the chance of an outbreak, overestimated their ability to control it, and feared socioeconomic disruption. Despite great difficulty, making timely decisions in epidemic prevention is very important. Our discussion from now focuses on how to improve the early response in China. Our core idea is that, since the tight punishment scheme may have been partly associated with the delay in Wuhan, a system that tolerates certain decision errors will increase the chance of a more timely response.

With this thinking, we distinguish two types of decision errors using the Wuhan case during Covid-19. During the early stage of an infectious disease, with uncertainties and risks, a decision-maker could take the risks of early action which might eventually turn out to be unnecessary and a false alarm. This is called a 'Type I error' or a false positive in decision-making. We propose that decision errors of this type should be tolerated, so that decision-makers are not subject to penalizing actions for proactive actions that turn out to be too aggressive—such as a citywide lock-down decision that disrupts economic activities. Proactive actions occurred in several jurisdictions during Covid-19 in China, including Qianjiang (a city 100 miles to the west of Wuhan), which closed down almost a week earlier than Wuhan did and, consequently, had far fewer infections per capita.

On the other hand, the decisions of under-reporting infections or delay in actions should be punished heavily. Such decisions are known as 'Type II errors' or false negatives. Public officials who delay actions should face severe consequences during infectious disease outbreaks.

By distinguishing error types to be tolerated or punished, and by making decision-makers aware of such a principle, we hope that the accountability system can motivate

decision-makers to take responsible risks and improve vigilance during public health crises.

Table 1 describes the design details of our proposed changes to the accountability system.

Table 1. A proposal to improve the early response to infectious disease

Key decision levels	Goals	Responsibilities	Errors to be tolerated	Errors punishable or prosecutable
The medical community (doctors, hospital officials, community clinic officials etc.)	Early detection	Early detecting and discovering potential infections; timely reporting to experts and officials	Detecting and reporting the cases that turn out to be false alarms (over-reporting); bypassing normal channels in reporting	Delay in detecting, testing, reporting suspected infections; underreporting suspected infections
Public health specialists and officials (centres for disease control and local health commissions at various levels)	Early reporting	Seeking multiple information channels and discovering suspected infections; assembling information and analysing disease patterns; reporting to the proper authorities; recommending policy options for prevention	Reporting cases that turn out to be false alarms (over-reporting); bypassing proper authorities in reporting; recommending preventive policies that turn out to disrupt the economy and society	Failure in seeking and discovering suspected infections; delays in data analysis and information reporting to high-level decision-making authorities; failing to recommend timely preventive policies; suppressing information sources and individuals
Local decision-making authorities (executive and party leaders of local governments)	Early preventive actions	Mobilizing resources, technology, and manpower; initiating regional collaborations; calling for the higher-level government for support	Taking preventive decisions proved to be false alarms or over-reactive, or in violation of rules or policies; taking actions proven to be too aggressive or disruptive (such as isolating patients, mobilizing hospital equipment, and closing down a city); revealing information proven to be unnecessary in the aftermath	Failing to seek and listen to expert opinions; delaying in preventive decisions and actions; concealing information and suppressing information sources; delaying mobilizing resources and seeking collaboration; other related offences leading to outbreaks

Conclusion

Tolerating certain decision errors has been a recent development in China's accountability system. The central government has introduced the concept to prevent responsibility-shirking and encourage responsible risk-taking. Understanding the types of errors that should be tolerated is the key to implementing the idea. The Wuhan government's early response during Covid-19 provides lessons and opportunities. By incorporating an error-tolerance mechanism to distinguish the types of decision errors to tolerate or punish, the accountability system can encourage proactive actions and prevent tardiness under threat of an incoming public health crisis.

We are under no illusion that our proposal, if implemented, would magically and completely improve responses during future public health crises. Infectious disease response is a learning process and there are many socioeconomic, institutional, and individual factors that could contribute to public officials' performances during crises. Nevertheless, our hope here is for policy-makers to view our proposed change as part of the learning in which hopefully, with proper evidence cumulatively over time, would lead to a better response. Given the significant value of such a response in reducing human and economic costs, any effort to improve it deserves a chance to be discussed and assessed carefully.

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