

and combating misinformation through clear, accurate information. This holistic approach builds trust and encourages proactive behaviors during a crisis.

3.3 Addressing misconceptions and public concerns

Addressing misconceptions and public concerns is a critical component of risk communication. Misinformation can significantly hinder public health efforts, as seen in historical and contemporary health campaigns. Effective strategies include aggressively addressing misinformation, ensuring consistent messaging, and leveraging social media to quickly convey accurate information. Moreover, understanding and addressing the public's misperceptions by using plain language and providing actionable solutions can improve comprehension and response to health risks (Shrivastava et al., 2016).

In conclusion, effective risk communication for Bt-based public health interventions requires a comprehensive understanding of the target audience, the development of clear and relevant messages, and proactive addressing of misconceptions and public concerns (Su et al., 2022). By incorporating these strategies, public health officials can enhance the uptake and success of health interventions.

4 Case Studies in Bt-based Public Health Interventions

4.1 Successful Bt interventions and their communication strategies

Successful Bt-based public health interventions have demonstrated the importance of effective risk communication strategies. For instance, the community water fluoridation campaign in Saskatoon, Canada, during 1953/54, utilized extensive community outreach, involvement of local experts, and aggressive addressing of misinformation to gain public support (Leurer et al., 2022). Similarly, the Romanian Orthodox Church's involvement in COVID-19 mitigation efforts in Romania highlights the positive outcomes of productive consultations between public health authorities and religious institutions, emphasizing the importance of engaging faith-based communities in public health initiatives (Dascalu et al., 2021). These examples underscore the necessity of tailored communication strategies that involve local stakeholders and address community-specific concerns.

4.2 Challenges faced in risk communication

Despite the successes, several challenges have been encountered in risk communication for Bt-based public health interventions. The COVID-19 pandemic has revealed significant issues, such as delayed decision-making and limited information disclosure, which hindered effective communication in Wuhan, China (Figure 2) (Zhang et al., 2020). Additionally, the analysis of government communication in the United States during the COVID-19 pandemic highlighted the consequences of ineffective communication, including public confusion and misunderstanding, which prolonged the health crisis (Kim and Kreps, 2020). These challenges illustrate the critical need for timely, transparent (Rooney et al., 2020), and accurate communication to build public trust and ensure compliance with health interventions.

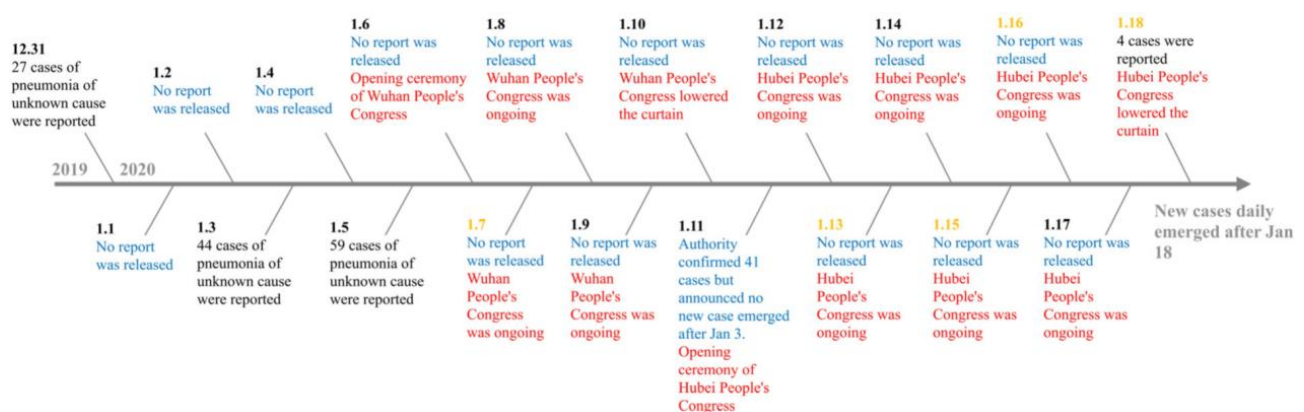


Figure 2 Timeline of official reports about infected cases by the Wuhan Health Commission (Adopted from Zhang et al., 2020)

Image caption: Blue represents "No report"; Red represents Wuhan and Hubei's Congress; Date in yellow represents confirmed infected case of medical worker (Adopted from Zhang et al., 2020)